



मंत्रि, भारी उद्योग एवं लोक उद्यम
भारत सरकार, नई दिल्ली-110 011

MINISTER OF
HEAVY INDUSTRIES & PUBLIC ENTERPRISES
GOVERNMENT OF INDIA, UDYOG BHAWAN,
NEW DELHI-110 011

Foreword



The Public Enterprises Survey (2010-11) is the 51st Survey in the series being laid in the Parliament. The Survey provides a consolidated report on the performance of all the Central Public Sector Enterprises (CPSEs). During 2010-11, the net profit of (158) profit making CPSEs was above the one lakh crore landmark with an aggregate net profit of ₹1,13,770 crore as against ₹1,08,434 crore in 2009-10. The loss of (60) loss making CPSEs also increased from ₹16,231 crore in 2009-10 to ₹21,693 crore during the financial year 2010-11. The overall net profit of all CPSEs during 2010-11, therefore, decreased by 0.14 percent in comparison to the previous year, due to increase in losses.

2. In terms of turnover, however, the CPSEs performed better showing an increase of 18.36 percent over the previous year. The turnover increased mainly in the petroleum, coal (& lignite) and trading & marketing group of CPSEs. The CPSEs have their presence in the diverse sectors of manufacturing, mining, electricity, construction and services. In view of the overall improvement in the Indian economy, the CPSEs stand to gain.

3. The CPSEs are, however, no longer operating in a protected economy and are faced with intense competition in the market. The higher input prices of imported (crude oil) have been also affecting their profit margins. The CPSEs need to pay more attention to Research & Development (R & D) for increasing efficiency and for producing better quality products.

4. The total investment in terms of paid-up capital and 'long term loans' by all the CPSEs stood at ₹6,66,848 crore as on 31.3.2011, in comparison to ₹5,80,784 crore in the previous year. There were 157 mega projects (costing ₹1000 crore and above) and 450 major projects (costing ₹100 to ₹1000 crore) under implementation by the CPSEs during 2010-11.

5. More and more CPSEs are getting listed on the stock exchanges. Stocks of 45 CPSEs were listed on the stock exchanges, as on 31.3.2011. With the listing of Coal India Ltd. and Satluj Jal Vidyut Nigam Ltd., the total market capitalization of CPSEs on the Bombay Stock Exchange went-up from ₹14,26,212 crore as on 31.3.2010 to ₹15,06,698 crore as on 31.3.2011.

6. I congratulate the Department of Public Enterprises for bringing out this comprehensive Survey on the performance of Central Public Sector Enterprises.


(Praful Patel)

March, 2012
New Delhi



भारत सरकार
लोक उद्यम विभाग
भारी उद्योग एवं लोक उद्यम मंत्रालय
GOVERNMENT OF INDIA
DEPARTMENT OF PUBLIC ENTERPRISES
MINISTRY OF HEAVY INDUSTRIES &
PUBLIC ENTERPRISES

Preface



D.R.S. Chaudhary, IAS
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 and is being prepared as per the recommendations of the Estimates Committee (2nd Lok Sabha). The Public Enterprises Survey is laid in the Parliament every year.

2. Besides statutory corporations, the CPSEs comprise those Government Companies (defined under Section 617 of 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, Insurance Companies and enterprises wherein Central Government equity is less than or equal to 50%. However, a chapter on Insurance Companies is included in Volume I of the Survey.

3. The Estimates Committee, 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 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.

4. The Public Enterprises Survey (2010-11) is the 51st Survey Report in the series. The basic data for the Public Enterprises Survey is compiled based on the Annual Reports/Accounts of individual enterprises for the financial year 2010-11 as well as the data provided by these enterprises in the detailed data sheet/questionnaire developed by the Department. The data so compiled have been analyzed and presented in two separate volumes (i.e. Volume I & II).

5. While **Volume-I** contains a macro appraisal of the performance of the companies, in terms of broad aggregates of physical and financial parameters, **Volume-II** contains enterprise-wise and cognate group-wise analytical data of three years viz. 2010-11, 2009-10 and 2008-09 consisting of summarized balance sheet, summarized profit and loss account and important management ratios, alongwith analysis of the performance of individual enterprises.

6. There were altogether 248 CPSEs (excluding 7 Insurance Companies) falling within the scope of the Survey 2010-11 (as on 31.3.2011) as against 249 CPSEs in 2009-10. During 2010-11, four enterprises have either been closed or merged with their holding companies or changed their public sector character due to formation of joint ventures (JVs) with less than 51% equity or there is transfer of ownership to private sector due to the decision taken by the concerned administrative Ministry.

7. The four enterprises which have not been covered in the Public Enterprises Survey 2010-11 are: Bhopal Dhule Transmission Company Ltd, Jabalpur Transmission Company Ltd. (these two companies are transferred to M/S Sterlite Transmission Project Pvt. Ltd), Raichur Sholapur Transmission Company Ltd. (transferred to M/S Patel Engineering Ltd.) and Sponge Iron India Ltd. (merged with NMDC Ltd.)

8. Three (3) new public sector enterprises, namely, BHEL Electrical Machines Ltd., NMDC-CMD Ltd. and RITES Infrastructure Services Ltd. have been added to the list of CPSEs as per the information received from the concerned administrative Ministry/Department. These three companies are yet to commence their commercial operations.

9. IRCON Infrastructure & Services Ltd., Indian Vaccines Corporation Ltd., Kanti Bijlee Utpadan Nigam Ltd. and Power System Operation Corporation Ltd. became operative during the year. These were shown as 'Under Construction Category' in the Public Enterprise Survey 2009-10. These companies have now been shifted to operational sectors, such as Contracts & Construction Services, Financial Services, Generation and Industrial Development and Technical Consultancy Services respectively based on the category of goods and services they are catering.

10. Manganese Ore (India) Ltd. National Aviation Company of India Ltd., Narmada Hydroelectric Development Corporation Ltd and Tehri Hydro Development Corporation Ltd. have changed their names as MOIL Ltd., Air India Ltd., NHDC Ltd. and THDC Ltd. respectively.

11. Two CPSEs namely Brahmaputra Crackers & Polymer Ltd. and Braithwaite & Co. Ltd have changed their administrative control from Ministry of Petroleum and Natural Gas and Ministry of Heavy Industries & Public Enterprises to Ministry of Chemicals & Fertilizers and Ministry of Railways respectively.

12. The data in respect of 49 CPSEs has been considered as provisional in 2010-11 as they have either not given audited annual accounts (45 CPSEs) or have not furnished the data for the year 2010-11. A list of these CPSEs is shown at Appendix V, at the end of this Volume.

13. Four enterprises viz. Bihar Drugs & Pharmaceutical Ltd., Birds Jute & Exports Ltd., IDPL (Tamil Nadu) Ltd. and Punjab Ashok Hotel Corporation Ltd. did not submit their data for the Public Enterprises Survey (2010-11) till the cut-off date of receiving the information. As such, the previous year's figures of these four CPSEs have been repeated in the Survey.

14. The present Survey, moreover, incorporates audited figures in respect of CPSEs whose accounts were treated as provisional in the Public Enterprises Survey 2009-10. The figures relating to 2009-10 as appeared in the last year's Survey have, therefore, undergone revision.

15. The status of 255 enterprises (including 7 Insurance Companies) discussed in this Survey, is shown below:

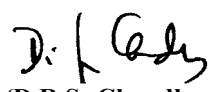
Sl. No.	Categories	Total Enterprises (as on 31.3.2011)
1.	Operating Enterprises	220
2.	Enterprises which are yet to commence commercial operation	28
3.	Insurance Companies	7
	Total	255

16. Ministry/Department-wise, sectoral/group-wise and State-wise (as per their Registered Office), separate lists of the CPSEs are given in the Appendices I, II, and III respectively at the end of this Volume.

17. We are grateful to all the Ministers/Departments for making available the relevant information relating to CPSEs, such as, Pricing Policy, market share of select CPSEs and proposals for Restructuring of CPSEs etc. The cooperation extended by all the CPSEs vis-à-vis submission of requisite data is duly acknowledged.

18. I would also like to put on record the efforts put in by all the officers and staff of the Department and the Public Enterprises Division of NIC (Government of India) in preparing the Survey. The overall supervision in this endeavor was provided by the Economic Adviser (Department of Public Enterprises).

19. The Survey is available on the DPE website www.dpe.nic.in. Suggestions to further improve the Public Enterprises Survey are welcome, and may be sent to e-mail: psurvey@nic.in.


(D.R.S. Chaudhary)

March, 2012
New Delhi

Performance Overview 2010-11

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, long term equilibrium in balance of payments and low and stable prices. While there were only five Central Public Sector Enterprises (CPSEs) with a total investment of ₹29.00 crore at the time of the First Five Year Plan, there were as many 248 CPSEs (excluding 7 Insurance Companies) with a total investment of ₹6,66,848 crore as on 31st March, 2011.

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, Coal India Ltd. (and its subsidiaries) have, however, been taken over from the private sector consequent to their 'nationalization'. Industrial companies such as Indian Petrochemicals Corporation Ltd., Modern Food Industries Ltd., Hindustan Zinc Ltd., Bharat Aluminum Company and Maruti Udyog Ltd., 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 and Indian Railways in transportation, the CPSEs are leading companies of India with significant market-shares in sectors such as petroleum, (eg. ONGC, GAIL and Indian Oil Corporation), mining (e.g. Coal India Ltd. and NMDC), power generation (e.g. NTPC and NHPC), power transmission (e.g. Power Grid Corporation Ltd.), nuclear energy (e.g. Nuclear Power Corporation of India Ltd.), heavy engineering (e.g. BHEL), aviation industry (eg. Hindustan Aeronautics Ltd. and Air India Ltd.), 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 (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, therefore, are faced with competition from both domestic private sector companies (some of which have grown very fast) and the large multi-national corporations (MNCs). The turnover of CPSEs like Cotton Corporation of India, ITI Ltd., Mazgaon Dock Ltd., MSTC Ltd., STC Ltd., ONGC

Videsh Ltd. and Bharat Sanchar Nigam Ltd. declined significantly during 2010-11. CPSEs like Air India Ltd., Bharat Sanchar Nigam Ltd., Mahanagar Telephone Nigam Ltd., Hindustan Photofilms & Manufacturing Co. Ltd., and Indian Drugs & Pharmaceuticals Ltd. suffered losses during 2010-11.

1.1 Indian Economy (2010-11) and CPSEs

The CPSEs play a critical role in the Indian economy. They influence the growth in the economy and are affected by the overall growth in the economy. As against the nominal GDP growth of 18.80 per cent (at current market price) in 2010-11, the gross value addition by all the CPSEs (exclusive of under-recoveries) grew by 10.03 per cent during the year (if however, 'the under recoveries' are added, then the gross value addition by all CPSEs during the year increased by 13.40 per cent). The turnover of petroleum (Refinery & Marketing), services (Trading & Marketing), electricity (Generation), heavy engineering, minerals & metals and coal & lignite showed a significant increase 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, increase in salary and wages, heavy interest burden and exchange rate fluctuations. The highlights of performance of CPSEs during 2010-11 are given in Box 1.

Macro view of the performance of CPSEs, during the last ten years, is shown in Box 2. The turnover of all 220 operating CPSEs stood at ₹14,73,319 crore as compared to ₹12,44,805 crore in the previous year. During the year 2010-11, the CPSEs earned foreign exchange equal to ₹97,004 crore as compared to ₹84,224 crore in 2009-10. The foreign exchange outgo on imports and royalty, know-how, consultancy, interest and other expenditure, on the other hand, increased from ₹4,24,207 crore in 2009-10 to ₹5,22,577 crore in 2010-11 showing an increase of 23.19%.

The total employee strength in CPSEs was 14.44 lakh (excluding casual labours) in 2010-11 as compared to 14.90 lakh in 2009-10. The total strength of the employees in CPSEs has gone down by 45,981 persons due to superannuation, voluntary retirement etc. The salary and wages in all the CPSEs went up from ₹87,792 crore in 2009-10 to ₹96,210 crore in 2010-11, showing a growth of 9.58%.

BOX – 1 Highlights

- **Total paid up capital** in 248 CPSEs as on 31.3.2011 stood at ₹ 1,55,433 crore compared to ₹ 1,48,367 crore as on 31.3. 2010 (249 CPSEs), showing a growth of 4.76%.
- **Total investment** (equity plus long term loans) in all CPSEs stood at ₹ 6,66,848 crore as on 31.3.2011 compared to ₹ 5,80,784 crore as on 31.3.2010, recording a growth of 14.82%.
- **Capital Employed** (net block plus working capital) in all CPSEs stood at ₹ 9,50,449 crore as on 31.3.2011 compared to ₹ 9,09,285 crore as on 31.3.2010 showing a growth of 4.53%.
- **Total turnover** of all CPSEs during 2010-11 was ₹ 14,73,319 crore compared to ₹ 12,44,805 crore in the previous year showing an increase of 18.36%.
- **Total income** of all CPSEs during 2010-11 stood at ₹ 14,97,903 crore compared to ₹ 12,72,219 crore in 2009-10, showing an increase of 17.74%.
- **Under-recoveries** by the upstream oil producing and oil marketing companies (in retail prices of petroleum products) amounted to ₹ 37,190 crore in 2010-11 compared to ₹ 20,051 crore in 2009-10.
- **Profit** of profit making CPSEs stood at ₹ 1,13,770 crore during 2010-11 compared to ₹ 1,08,434 crore in 2009-10 showing a growth of 4.92%.
- **Loss** of loss incurring CPSEs stood at ₹ 21,693 crore in 2010-11 compared to ₹ 16,231 crore in 2009-10 showing an increase in loss by 33.57%.
- **Overall net profit** of all 220 CPSEs during 2010-11 stood at ₹ 92,077 crore compared to ₹ 92,203 crore during 2009-10 showing a reduction of 0.14%.
- **Reserves & Surplus** of all CPSEs went up from ₹ 6,05,637 crore in 2009-10 to ₹ 6,55,488 core in 2010-11, showing an increase by 8.23%.
- **Net worth** of all CPSEs went up from ₹ 6,59,437 crore in 2009-10 to ₹ 7,23,128 crore in 2010-11 registering a growth of 9.66%.
- **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 increased from ₹ 1,39,918 crore in 2009-10 to ₹ 1,56,124 crore in 2010-11, showing an increase of 11.58%.
- **Foreign exchange earnings** through exports of goods and services increased from ₹ 84,224 crore in 2009-10 to ₹ 97,004 crore in 2010-11, showing a growth of 15.17%.
- **Foreign exchange outgo** on imports and royalty, know-how, consultancy, interest and other expenditure increased from ₹ 4,24,207 crore in 2009-10 to ₹ 5,22,577 crore in 2010-11 showing an increase of 23.19%.
- **CPSEs employed** 14.44 lakh people (excluding casual labours) in 2010-11 compared to 14.90 lakh in 2009-10, showing a decrease in employees by 3.09%.
- **Salary and wages** went up in all CPSEs from ₹ 87,792 crore in 2009-10 to ₹ 96,210 crore in 2010-11 showing a growth of 9.58%.
- **Total Market Capitalisation (M_Cap)** of 45 listed CPSEs, based on the stock price in Mumbai Stock Exchange, increased from ₹ 14,26,212 crore as on 31.03.2010 to ₹ 15,06,698 crore as on 31.03.2011. Market Capitalisation of CPSEs during this period, therefore, increased by 5.64%
- **M_Cap** of CPSEs as per cent of BSE M_Cap decreased from 23.13% as on 31.3.2010 to 22.03% as on 31.3.2011.

Box-2
Macro View of Performance of Central Public Sector Enterprises

(₹ in crore)

Particulars	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
No. of operating Enterprises	231	226	230	227	226	217	214	213	217	220
Capital employed	389934	417160	452336	504407	585484	661338	724009	792232	908007	949499
Turnover	478731	572833	630704	744307	837295	964890	1096308	1271529	1244805	1473319
Total Income	498315	548912	613706	734944	829873	970356	1102772	1309639	1272219	1497903
Net Worth	225472	241846	291828	341595	397275	454134	518485	583144	652993	715084
Profit before dep, Int, tax & EP (PBDITEP)	89550	101691	127320	142554	150262	177990	195049	186836	211184	227636
Depreciation	26360	28247	31251	33147	34848	33141	36668	36780	41603	43003
DRE/Prel. Exps. Written Off	-	905	1025	986	992	5841	5802	7661	9565	14009
Profit before int., tax & EP (PBITEP)	63190	72539	95039	108420	114422	139008	152579	142395	160017	170625
Interest	24957	23921	23835	22869	23708	27481	32126	39300	36060	38998
Profit before Tax & EP (PBTEP)	38233	48618	71144	85550	90714	111527	120453	103095	123957	131627
Tax provisions	12255	17499	22134	21662	24370	34352	40749	33828	40018	45303
Net Profit before EP	25978	31119	49010	63889	66344	77175	79704	69267	83939	86324
Net Extra Ord. Items & Prior Period Adj.	-	-1225	-3933	-1075	-3192	-3880	-1570	-14600	-8264	-5753
Profit of profit making CPSEs	36432	43316	61606	74432	76382	89581	91577	98488	108434	113770
Loss of loss incurring CPSEs	10454	10972	8522	9003	6845	8526	10303	14621	16231	21693
Profit making CPSEs (No.)	120	119	139	143	160	154	160	158	157	158
Loss Incurring CPSEs (No.)	109	105	89	73	63	61	54	55	60	62
CPSEs Making no profit/ loss	2	2	2	-	1	1	-	-	-	-
Operating CPSEs not furnished information (No.)	-	-	-	-	2	1	-	-	-	2
Dividend	8068	13769	15288	20718	22886	26819	28123	25501	33223	35681
Dividend tax	8	1193	1961	2852	3215	4107	4722	4132	5151	5394
Retained profit	17902	17382	35835	41394	43435	50129	48429	54233	53820	51002

1.2 Profitability Ratios

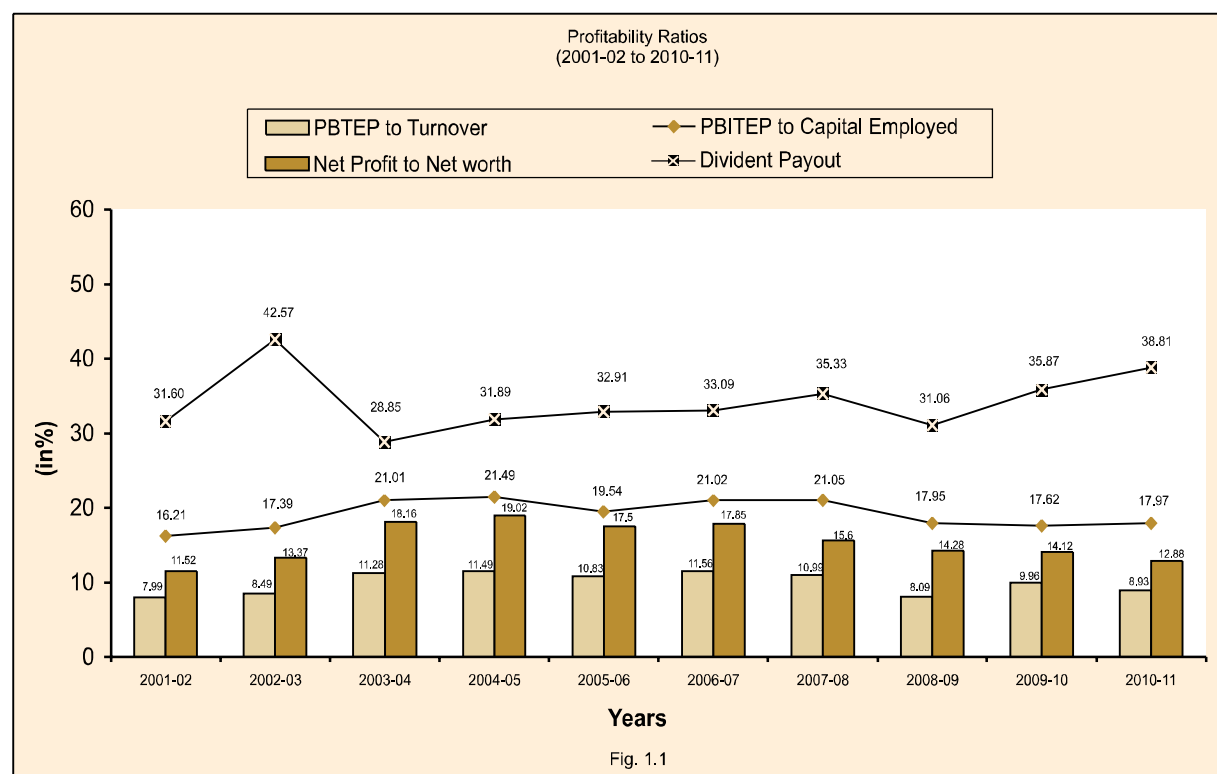
Box-3 below shows the different financial ratios vis-a-vis the aggregate performance of CPSEs, for the last ten years. A perusal of profit related ratios shows a general improvement in profitability of CPSEs over the

years (Fig 1.1). In comparison to 2009-10, however, the profitability ratios in terms of net profit to turn over and net profit to net worth declined in 2010-11, whereas net profit to capital employed and dividend payout increased during the year.

BOX-3
Financial Ratio

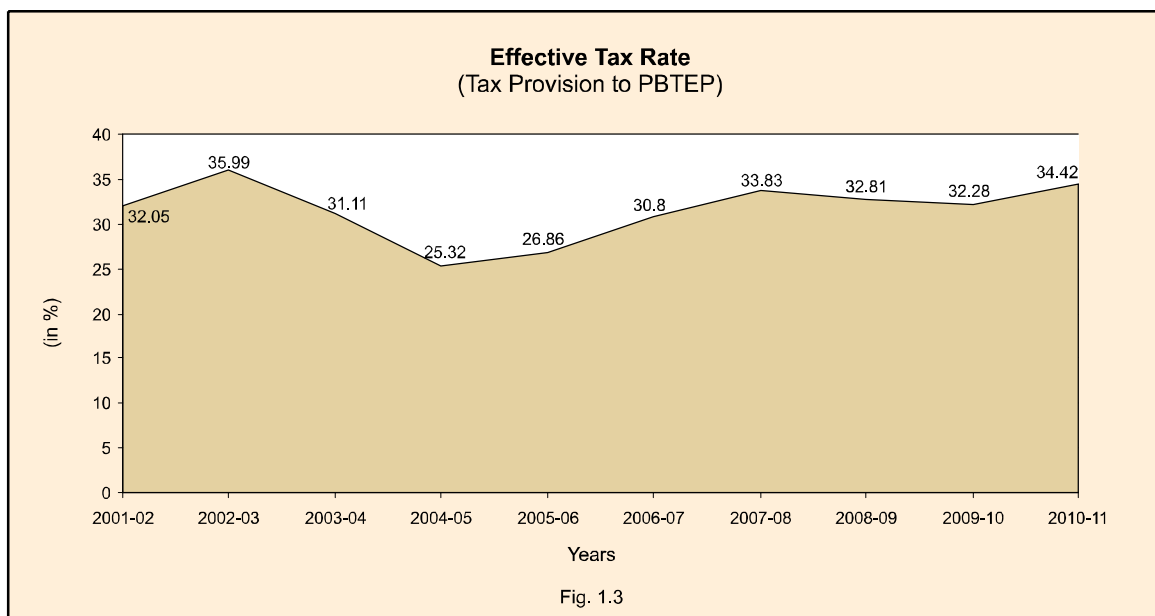
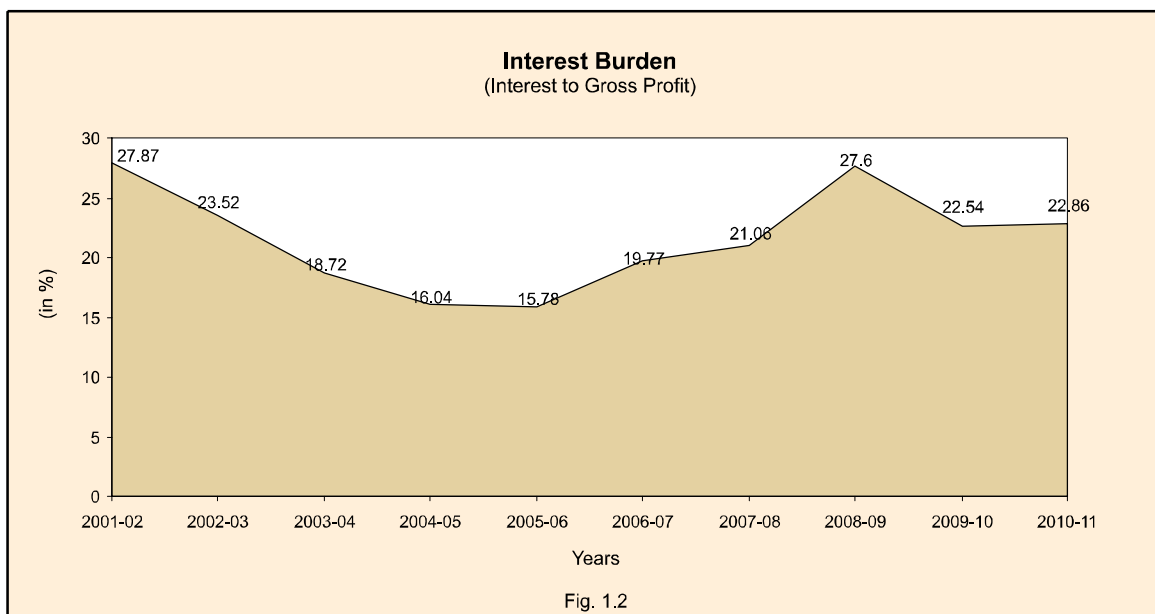
(In per cent)

Particulars	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11
Sales to Capital employed	122.77	137.32	139.43	147.56	143.01	145.90	151.28	160.30	137.09	155.17
PBDITEP to Capital employed	22.97	24.38	28.15	28.26	25.66	26.91	26.91	23.55	23.26	23.97
PBTEP to Net worth	16.96	20.10	24.38	25.04	22.83	24.56	23.12	17.55	18.98	18.41
PBDITEP to Turnover	18.71	17.75	20.19	19.15	17.95	18.45	17.79	14.67	16.97	15.45
PBITEP to Capital employed	16.21	17.39	21.01	21.49	19.54	21.02	21.05	17.95	17.62	17.97
PBITEP to Turnover	13.20	12.66	15.07	14.57	13.67	14.41	13.92	11.18	12.85	11.58
PBTEP to Turnover	7.99	8.49	11.28	11.49	10.83	11.56	10.99	8.09	9.96	8.93
Net Profit to Turnover	5.43	5.65	8.40	8.73	8.30	8.40	7.41	6.59	7.41	6.25
Net Profit to Capital Employed	6.66	7.75	11.71	12.88	11.88	12.26	11.21	10.57	10.15	9.70
Net Profit to Net Worth	11.52	13.37	18.16	19.02	17.50	17.85	15.60	14.28	14.12	12.88
Dividend payout	31.06	42.57	28.85	31.89	32.91	33.09	35.33	31.06	35.87	38.81
Tax Provision to PBTEP	32.05	35.99	31.11	25.32	26.86	30.80	33.83	32.81	32.28	34.42
Interest to Gross Profit	27.87	23.52	18.72	16.04	15.78	19.77	21.06	27.60	22.54	22.86



The interest burden on CPSEs measured as ‘interest to gross profit’ shows a decline upto 2005-06. Subsequently, it has shown an upward trend up to 2008-09 and reached the levels of 2001-02. It, however, declined in 2009-10 and increased marginally in 2010-11 to 22.86 per cent

(Fig 1.2). In terms of ‘effective tax rate’, the tax burden on CPSEs that improved significantly in 2004-05 and in 2005-06, got worse in 2007-08 and 2008-09; it came down marginally in 2009-10, but went up to 34.42 per cent in 2010-11 (Fig 1.3).



1.3 Aggregate Balance Sheet of CPSEs

Table 1.1 below provides information on ‘sources of funds’ (capital available) and their utilization (‘application of funds’) by CPSEs at the aggregate level during the last three years. There was further improvement in 2010-11 as the funds available with CPSEs went up to ₹ 15,79,942 crore in 2010-11 from the earlier levels of ₹ 14,11,184 crore in 2009-10 and ₹ 12,79,447 crore in 2008-09. While

‘reserves and surplus’ showed an increase of 9.88 per cent over the previous year, ‘long term loans’ increased by 18.29 per cent during 2010-11 over 2009-10. In absolute terms, ‘reserves and surplus’ went up to ₹ 6,65,488 crore in 2010-11 from the earlier levels of ₹ 6,05,637 crore in 2009-10 and ₹ 5,36,212 crore in 2008-09. Long term loans went up to ₹ 5,09,453 crore in 2010-11 from the earlier levels of ₹ 4,30,669 crore in 2009-10 and ₹ 3,71,384 crore in 2008-09.

In terms of 'application of funds', there was a growth of 11.43 per cent in 'gross block' and a reduction of 3.14 per cent in 'net current assets' in 2010-11 over 2009-10. 'Financial Investment' by the CPSEs in mutual funds (loans and equity), fixed assets and similar instruments has had the highest increase of 46.03% under 'application of funds', followed by increase in 'Net Block' (11.43%) and Capital-Work-in Progress (15.37%). Net Current

Assets and Deferred Revenue Expenditure and Deferred Tax Assets decreased in 2010-11 in comparison to the previous year by 3.14%, and 13.76% respectively. During 2010-11, accumulated loss of CPSEs furthermore increased by 4.23% compared to the previous year. There has, however, been very little change during the three years in respect to the share of 'Net Block' of the total under 'application of funds' (Table-1.1).

Table 1.1
Aggregate Balance Sheet of Public Sector Enterprises

(₹ in crore)

Particulars	2010-11	2009-10	2008-09
SOURCES OF FUNDS			
(i) Share-holders fund (a+b+c)	822883.24	755752.49	678168.69
a. Paid-up Capital	155432.62	148367.06	138734.40
b. Share application Money	1962.90	1748.42	3222.01
c. Reserves & Surplus	665487.72	605637.01	536212.28
(ii) Long Term Loans	509452.53	430668.54	371576.04
(iii) Deferred Tax Liability	55047.18	48392.50	49201.20
(IV) Other Funds	192559.31	176370.07	180500.80
Total (i+ii+iii+iv)	1579942.26	1411183.60	1279446.73
APPLICATION OF FUNDS			
(i) Gross Block	1034059.26	930966.02	815249.32
(ii) Less: Depreciation	500850.17	452459.67	407654.13
(iii) Net Block	533209.09	478506.35	407595.19
(iv) Capital Work In Progress	229605.59	199016.61	162918.03
(v) Investments (Financial)	291278.17	199461.75	224286.86
(vi) Net Current Assets	417240.32	430778.50	385644.98
(vii) Deferred Revenue Expenditure	3044.42	3530.29	3694.62
(viii) Deferred Tax Asset	8854.17	7104.87	8118.79
(ix) Profit & Loss Account (DR)	96710.50	92785.23	87188.26
Total (iii to ix)	1579942.26	1411183.60	1279446.73

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 was the highest at 27.83 per cent during 2010-11. This was followed by 'electricity' (25.15%), 'services' (23.20%) and 'mining' (23.00%). In terms of growth in investment over the

previous year, the highest growth (other than CPSEs under construction) was registered by 'manufacturing' sector (14.80%), followed by 'mining' (13.00%), 'electricity' (12.31%) and 'services' (5.70%). The overall growth in investment in CPSEs, in terms of 'gross block', stood at 11.83 per cent in 2010-11 over the previous year. (Table 1.2/ Fig. 1.4).

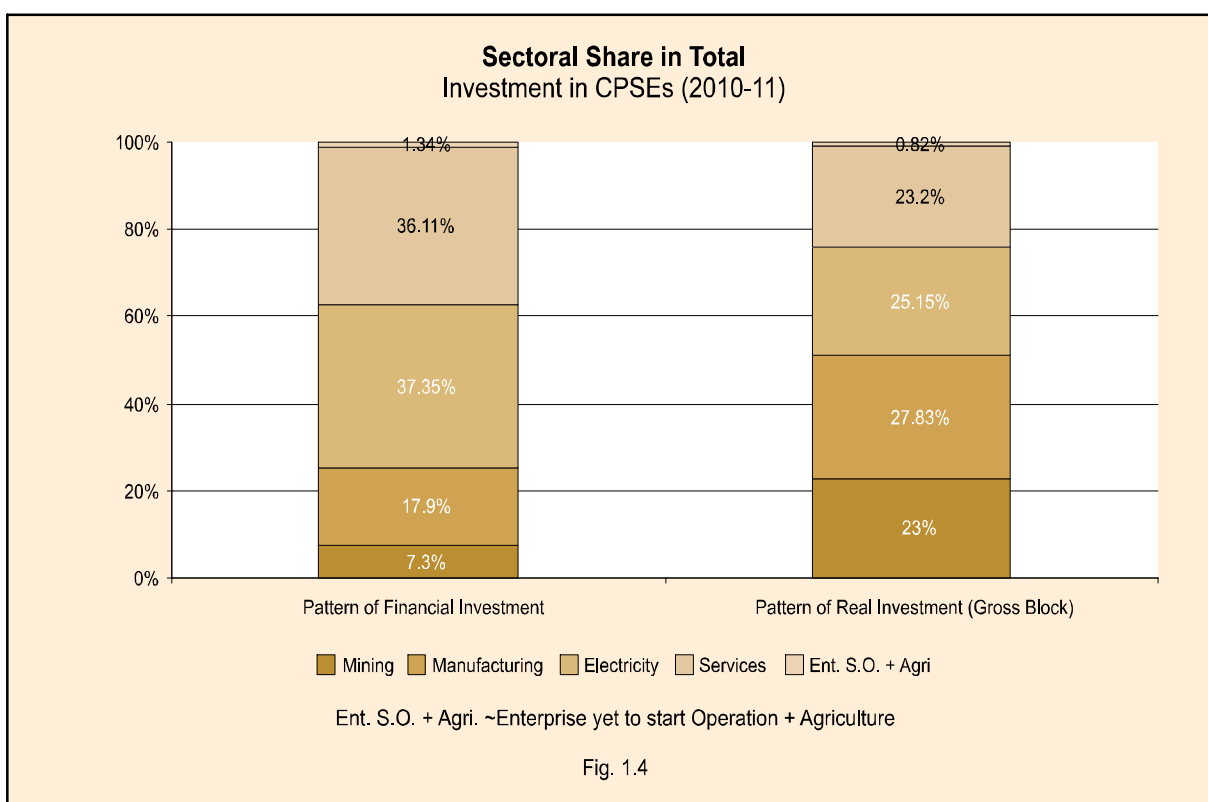


Table 1.2
Pattern of investment in terms of Gross Block
(2009-10 and 2010-11)

(₹ 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 31.3.11)
		31.3.2011	31.3.2010		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Agriculture	119	110	8.18	0.01
2.	Mining	290600	257173	13.00	23.00
3.	Manufacturing	351634	306297	14.80	27.83
4.	Electricity	317908	283060	12.31	25.15
5.	Services	293167	277352	5.70	23.20
6.	CPSEs yet to commence operations	10237	5991	70.87	0.81
	Total	1263665	1129983	11.83	100.00

1.4.1 Top Ten Enterprises in terms of Gross Block

Gross block in top ten enterprises amounted to ₹ 8,70,431 crore as on 31.3.2011. This was equal to 68.88 percent of the total gross block in all CPSEs. Oil &

Natural Gas Corporation Limited, Bharat Sanchar Nigam Ltd. and NTPC Ltd are the top three CPSEs amongst the top ten CPSEs in terms of gross block during the year 2010-11 (Table 1.3). The share of these 3 CPSEs alone was 37.91% of the total gross block of all the CPSEs as on 31.3.2011.

Table 1.3
Gross Block in Top Ten Enterprises, as on 31.3.2011

(₹ in crore)

Sl.	CPSEs	Investment in terms of Gross Block*	Share in total Gross Block %)
(1)	(2)	(3)	(4)
1.	Oil & Natural Gas Corporation Ltd.	195769.65	15.49
2.	Bharat Sanchar Nigam Ltd.	172338.10	13.64
3.	NTPC Ltd.	111025.78	8.79
4.	Indian Oil Corporation Ltd.	105785.29	8.37
5.	Power Grid Corporation of India Ltd.	76976.37	6.09
6.	Steel Authority of India Ltd.	60489.03	4.79
7.	NHPC Ltd.	39997.37	3.17
8.	Air India Ltd.	37337.31	2.95
9.	Nuclear Power Corporation of India Ltd.	37265.29	2.94
10.	Hindustan Petroleum Corpn. Ltd.	33447.09	2.65
	Total Top Ten (CPSEs)	870431.28	68.88
	Total Gross Block	1263664.85	-

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

1.4.2 Financial Investment in CPSEs

Financial investment (equity plus long term loans) in all 248 CPSEs as on 31.3.2011 stood ₹ 6,66,848 crore as compared to ₹ 5,80,784 crore in the previous year, showing an increase by ₹ 86,064 crore or a growth of 14.82 percent.

Table 1.4 below shows the sector-wise and cognate group-wise cumulative investment in CPSEs as on 31.3.2010 and 31.3.2011. In terms of share in total investment, the CPSEs in the electricity sector had the highest share in financial investment (37.35%) as on 31.3.2011 (Fig. 1.4). This was followed by 'service' sector (36.11%), 'manufacturing' sector (17.90) and 'mining' sector (7.30%).

Table 1.4
Group-wise Investment of CPSEs for three years

(₹ in crore)

Sl. No.	Sector/ Cognate Group	Financial Investment		
		31.3.2011	31.3.2010	31.3.2009
(1)	(2)	(3)	(4)	(5)
I. Agriculture				
1	Agro Based Industries	185.25	160.71	256.51
	Sub Total	185.25	160.71	256.51
II. Mining				
2	Coal & Lignite	17004.78	17194.41	18006.80
3	Crude Oil	26970.87	23119.55	19406.19
4	Other Minerals & Metals	4710.60	3863.74	3803.94
	Sub Total	48686.25	44177.70	41216.93
III. Manufacturing				
5	Steel	22364.31	19917.38	14886.51
6	Petroleum(Refinery & Marketing)	39945.03	36167.27	30567.29
7	Fertilizers	23849.95	13010.93	12448.13
8	Chemicals & Pharmaceuticals	5395.88	5808.04	5076.73
9	Heavy Engineering	3325.44	5302.24	4852.97
10	Medium & Light Engineering	7269.69	8225.34	7915.46
11	Transportation Equipment	1989.70	1834.26	1867.36
12	Consumer Goods	3921.19	3854.59	10020.34
13	Textiles	19897.0	1834.26	1867.36
	Sub Total	119348.64	101456.69	93923.88
IV. Electricity				
14	Generation	134368.88	125533.98	112412.73
15	Transmission	114678.91	91230.33	75124.01
	Sub Total	249047.79	216764.31	187536.74
V. Services				
16	Trading & Marketing	7193.77	8528.22	11582.54
17	Transport Services	31189.44	27002.75	21866.90
18	Contract & Construction Services	15520.07	17045.49	13266.16
19	Industrial Development & Tech. Consultancy Services	871.29	778.35	812.88
20	Tourist Services	162.99	167.66	212.80
21	Financial Services	167901.29	143518.20	122207.04
22	Telecommunication Services	17958.32	15071.52	17055.98
	Sub Total	240797.17	212112.19	187004.30
	Grand Total	666848.05	580784.02	513532.45

1.5 Turnover in CPSEs

Gross sales/ turnover of CPSEs has been robust during 2010-11. The turnover of CPSEs (at the aggregate level)

increased by 18.36 per cent in 2010-11 over 2009-10 against decline of 2.10 per cent in 2009-10 over 2008-09 (Table 1.5 & 1.6).

Table 1.5
Group-wise Turnover in CPSEs
(2008-09 to 2010-11)

(₹ in crore)

Sl. No.	Sector/ Cognate Group	Turnover		
		31.3.2011	31.3.2010	31.3.2009
(1)	(2)	(3)	(4)	(5)
I. Agriculture				
1	Agro Based Industries	938.11	762.52	456.03
Sub Total		938.11	762.52	456.03
II. Mining				
2	Coal & Lignite	55762.47	48556.04	42997.93
3	Crude Oil	80026.52	72946.10	77450.16
4	Other Minerals & Metals	23237.39	15991.69	17984.60
Sub Total		159026.38	137493.83	138432.69
III. Manufacturing				
5	Steel	59531.84	55521.87	60057.57
6	Petroleum(Refinery & Marketing)	776905.26	629876.95	703966.35
7	Fertilizers	15914.09	14495.58	17011.72
8	Chemicals & Pharmaceuticals	1581.00	1387.74	1498.06
9	Heavy Engineering	44539.56	35184.78	28855.72
10	Medium & Light Engineering	13753.39	15064.96	11114.62
11	Transportation Equipment	20734.69	21242.57	16394.37
12	Consumer Goods	5234.45	4919.83	4340.73
13	Textiles	638.97	490.28	415.40
Sub Total		938833.25	778184.56	843654.54
IV. Electricity				
14	Generation	74844.92	63836.23	55832.60
15	Transmission	16717.86	13782.97	10518.89
Sub Total		91562.78	77619.20	66351.49
V. Services				
16	Trading & Marketing	187387.01	161225.79	137268.02
17	Transport Services	29118.94	27329.93	27561.67
18	Contract & Construction Services	12319.08	11862.57	9769.82
19	Industrial Development & Tech. Consultancy Services	8185.59	6554.44	5543.49
20	Tourist Services	1174.11	1021.10	1025.87
21	Financial Services	19476.70	16539.32	13765.12
22	Telecommunication Services	25297.54	26212.09	27706.77
Sub Total		282958.97	250745.24	222640.76
Grand Total		1473319.49	1244805.35	1271535.51

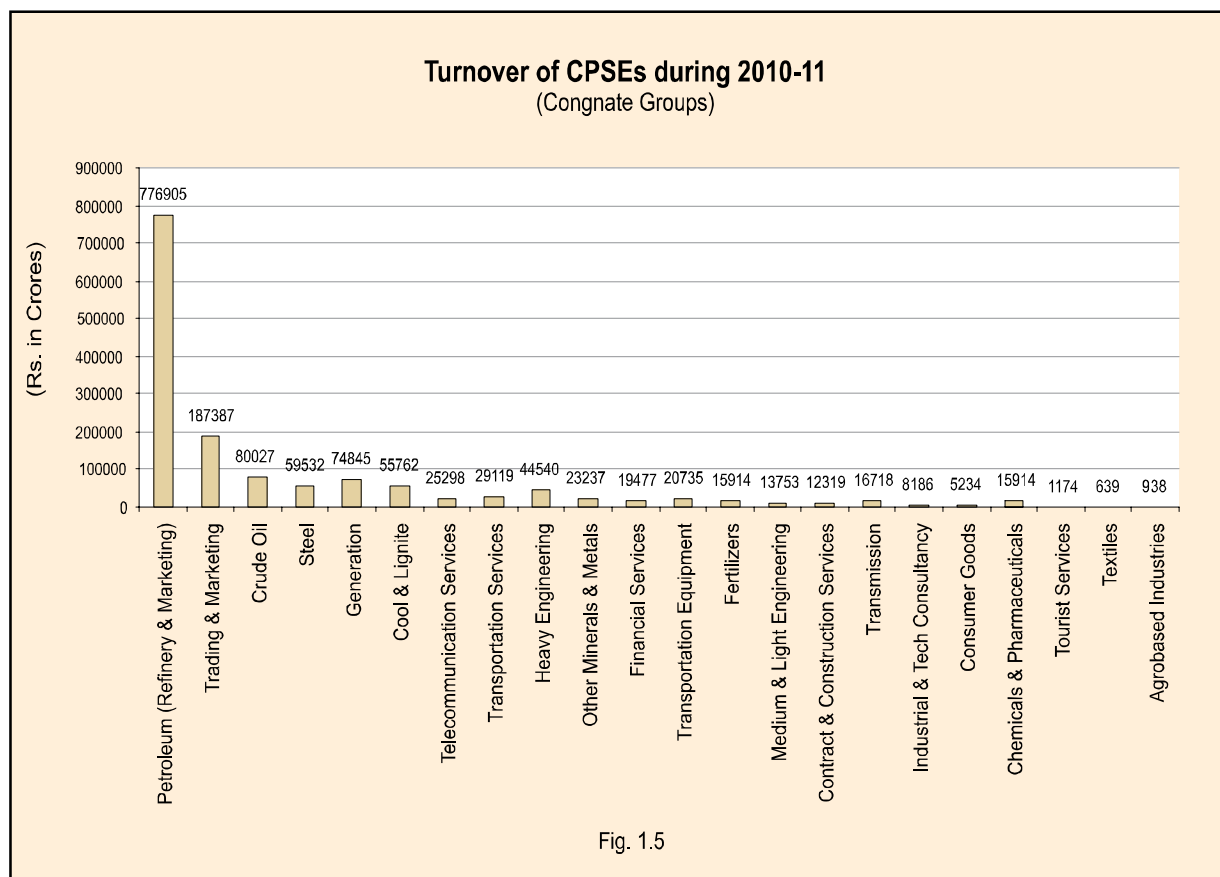


Table 1.6
Sector wise Growth in Turnover of CPSEs
(2008-09 to 2010-11)

Sector	(in % age)		
	2010-11	2009-10	2008-09
Agriculture	23.03	67.21	37.03
Mining	15.66	-0.68	10.09
Manufacturing	20.64	-7.76	17.02
Electricity	17.96	16.98	14.84
Services	12.85	12.62	16.27
All CPSEs	18.36	-2.10	15.98

The agriculture sector recorded the highest growth in turnover (23.03%) during 2010-11. This was followed by

‘manufacturing’ with a (20.64%) growth against a negative growth (-7.76%) in 2009-10. The ‘mining’ sector had 15.66 per cent growth in turnover during the year as against a negative growth of 0.68% during 2009-10. The turnover in ‘electricity’ and ‘service’ sector showed marginal improvement over the previous year with a growth of 17.96% and 12.85% respectively during 2010-11.

There was, moreover, much variation from industry to industry. There was significant decline in turnover of CPSEs belonging to industries like medium & light engineering, transportation equipment and telecommunications services.

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 (and industries) where they have a major share in domestic and national output (including imports) are coal, petroleum, telecommunication, power generation and fertilizers. In comparison to 1998-99, however, the share of CPSEs in these industries has been significantly coming down over the years (except power generation).

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	2010-11	1998-99	2010-11	1998-99	2010-11
1	Coal							
1.1	Hard Coal (Non-coking Coal)	Million Tonnes	253.326	483.543	223.474	390.219	88.216	80.70
1.2	Coking Coal	Million Tonnes	44.414	49.533	37.201	42.496	83.760	85.80
2	Petroleum Products[@]							
2.1	Crude Oil	MMT	32.7	37.68	29.7	27.90	90.8	74.0
2.2	Natural Gas	BCM	27.4	52.22	24.5	25.45	89.4	48.7
2.3	Refineries Throughput	MMT	68.5	196.5	68.5	115.1	100.0	58.5
3	Power Generation							
3.1	Thermal	GWh	353662	665008	135423	273775	38	41.2
3.2	Hydro	GWh	82690	114257	25339	46049	31	40.3
3.3	Nuclear	GWh	12015	26266	12015	26266	100	100.0
4	Telecommunication Services							
4.1	Wired lines	Nos. (in cr.)	1.78	3.47	1.78	2.87	100	82.70
4.2	Wire Less	Nos. (in cr.)	0.09	81.16	0.09	9.73	100	11.99
4.3	Total	Nos. (in cr.)	1.87	84.63	1.87	12.60	100	14.89
5	Fertilizers							
5.1	Nitrogenous	Lakh MT	100.86	121.57	31.76	31.67	31.49	26.05
5.2	Phosphoric	Lakh MT	29.76	43.23	7.26	2.27	24.40	5.37

Notes:

MMT: Million Metric Tonnes, MCM: Million Cubic Metres

@ Figures repeated for previous year.

1.6.1 Aggregate Profit and Loss of CPSEs

The profit of profit making CPSEs stood at ₹ 1,13,770 crore in 2010-11 compared to ₹ 1,08,434 crore in 2009-10. The loss of loss making CPSEs, on the other hand, was ₹ 21,693 crore in 2010-11 compared to ₹ 16,231 crore in 2009-10. At the aggregate level, the net profit of all CPSEs (aggregate net profit- aggregate net loss) stood at ₹ 92,077 crore in 2010-11 compared to ₹ 92,203 crore during 2009-10.

Cognate group-wise, the best results were achieved by the 'mining' sector with 22.32 per cent growth in profit over the previous year. This was followed by 12.97 per

cent growth in profits achieved by electricity sector. The 'services' sector suffered a loss of ₹ 7,639 crore during 2010-11, which was higher than the loss of ₹ 3,279 crore in 2009-10. This was mainly due to the loss suffered by Air India Ltd in both these years. In the other industry groups, CPSEs belonging to transport services, telecommunication services and consumer goods were equally under stress, and their losses increased during 2010-11. Under the manufacturing sector, steel, petroleum and textile showed a decline in profits. CPSEs belonging to medium and light engineering industries, suffered losses during the year in comparison to profit in the previous year. CPSEs in the chemicals & pharmaceuticals sectors, on the other hand, reduced their losses during 2010-11.

Table 1.8
Net Profit/Loss of CPSEs

(₹ in crore)

Sl. No.	Sector/ Cognate Group	31.3.2011	31.3.2010	31.3. 2009
I. Agriculture				
1	Agro Based Industries	40.23	49.79	19.48
Sub Total		40.23	49.79	19.48
II. Mining				
2	Coal & Lignite	15037.07	12907.91	5341.26
3	Crude Oil	23935.24	20513.40	19730.67
4	Other Minerals & Metals	8622.54	5488.78	6411.03
Sub Total		47594.85	38910.09	31482.96
III. Manufacturing				
5	Steel	5642.43	7616.25	7589.23
6	Petroleum(Refinery & Marketing)	16060.82	18143.15	8095.03
7	Fertilizers	-471.73	-686.00	10633.55
8	Chemicals & Pharmaceuticals	-635.87	-647.07	-526.88
9	Heavy Engineering	7140.71	4121.05	3022.93
10	Medium & Light Engineering	-414.31	77.97	-255.85
11	Transportation Equipment	3054.31	2818.52	2352.73
12	Consumer Goods	-710.78	-612.39	128.48
13	Textiles	1117.08	6837.92	3543.90
Sub Total		30782.66	37669.40	34583.12
IV. Electricity				
14	Generation	16013.69	14437.99	12483.96
15	Transmission	5283.76	4414.51	2981.17
Sub Total		21297.45	18852.50	15465.13
V. Services				
16	Trading & Marketing Services	560.83	34.73	966.62
17	Transport Services	-5020.66	-3935.52	-3565.51
18	Contract & Construction Services	544.67	440.90	290.14
19	Industrial Development & Tech. Consultancy Services	1071.93	826.58	635.72
20	Tourist Services	30.72	17.83	53.19
21	Financial Services	4265.14	3658.12	3047.46
22	Telecommunication Services	-9091.25	-4321.21	888.56
Sub Total		-7638.62	-3278.57	2316.18
Grand Total		92076.57	92203.21	83866.87

1.6.2 Top Ten Profit 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. Oil & Natural Gas Corporation Ltd., NTPC Ltd., and Indian Oil Corporation Ltd have ranked first, second and

third CPSEs respectively amongst the top ten profit making CPSEs. All the top ten profit making companies are, more or less same in 2010-11 as in 2009-10 (with ranking slightly changed) except for Power Grid Corporation that has replaced the Power Finance Corporation.

Table 1.9
Top Ten Profit Making CPSEs
2010-11

(₹ in crore)

SI	Name of the CPSEs	Net profit	% share of total Net profit
(1)	(2)	(3)	(3)
1.	Oil & Natural Gas Corporation Ltd.	18924.03	16.63
2.	NTPC Ltd.	9102.59	8.00
3.	Indian Oil Corporation Ltd.	7445.48	6.54
4.	NMDC Ltd.	6499.22	5.71
5.	Bharat Heavy Electricals Ltd.	6011.20	5.28
6.	Steel Authority of India Ltd.	4904.74	4.32
7.	Coal India Ltd.	4696.10	4.13
8.	GAIL (India) Ltd.	3561.13	3.13
9.	Oil India Ltd.	2887.73	2.54
10.	Power Grid Corporation of India Ltd.	2696.89	2.37
	Total Profit	66729.11	58.65
	Net Profit of profit making CPSEs.	113769.88	-

1.6.3 Top ten loss making CPSEs

Table 1.10 provides the list of top ten loss making CPSEs (exclusive of extra ordinary items and prior period adjustment). Amongst the loss making companies, Air India Ltd., Bharat Sanchar Nigam Ltd. and Mahanagar Telephone Nigam Ltd. were the top three loss making enterprises during 2010-11. The top ten loss making Companies covered nearly 92.55% of the total loss made by all the (62) CPSEs during the year. The top three CPSEs namely

Air India Ltd., BSNL and MTNL alone have incurred a loss equal to 74% of the total loss of all CPSEs in 2010-11. Intense price war and cut-throat competition from new entrants, increase in salary & wages and increase in operating cost as well as increase in interest cost contributed to greater losses during the year. While the loss of Air India and MTNL have gone up by 24% and 54% respectively, the loss of BSNL increased by 145% in 2010-11 over 2009-10.

Table 1.10
Top Ten Loss Making CPSEs
(2010-11)

(₹ in crore)

Sl. No.	Name of the CPSEs	Net Loss	(% share of total Net loss)
(1)	(2)	(3)	(4)
1.	Air India Ltd.	(-) 6865.17	31.65
2.	Bharat Sanchar Nigam Ltd.	(-) 6384.26	29.43
3.	Mahanagar Telephone Nigam Ltd.	(-) 2801.91	12.92
4.	Hindustan Photo Films Manufacturing Co. Ltd.	(-) 1156.65	5.33
5.	Indian Drugs & Pharmaceuticals Ltd.	(-) 621.83	2.87
6.	Hindustan Cables Ltd.	(-) 607.39	2.80
7.	Fertilizer Corporation of India Ltd.	(-) 508.51	2.34
8.	Air India Charters Ltd.	(-) 391.22	1.80
9.	Hindustan Fertilizer Corporation Ltd.	(-) 382.28	1.76
10.	ITI Ltd.	(-) 357.75	1.65
	Total Loss	(-) 20076.97	92.55
	Net Loss of loss making CPSEs.	(-) 21693.31	-

1.7 Contribution to GDP

1.7.1 Gross Value Addition by CPSEs

The share of 'gross value addition' in CPSEs (net value addition + depreciation) in Gross Domestic Product (at current market price) stood at 5.96 per cent in 2010-11 against a share of 6.44 per cent in 2009-10. If, however, the under-recoveries of oil marketing companies (amounting to ₹ 37,190 crore in 2010-11 and ₹ 29,951 crore in 2009-10) are included, then the share of all CPSEs in GDP goes up to 6.45 per cent in 2010-11 and 6.75 per cent in 2009-10.

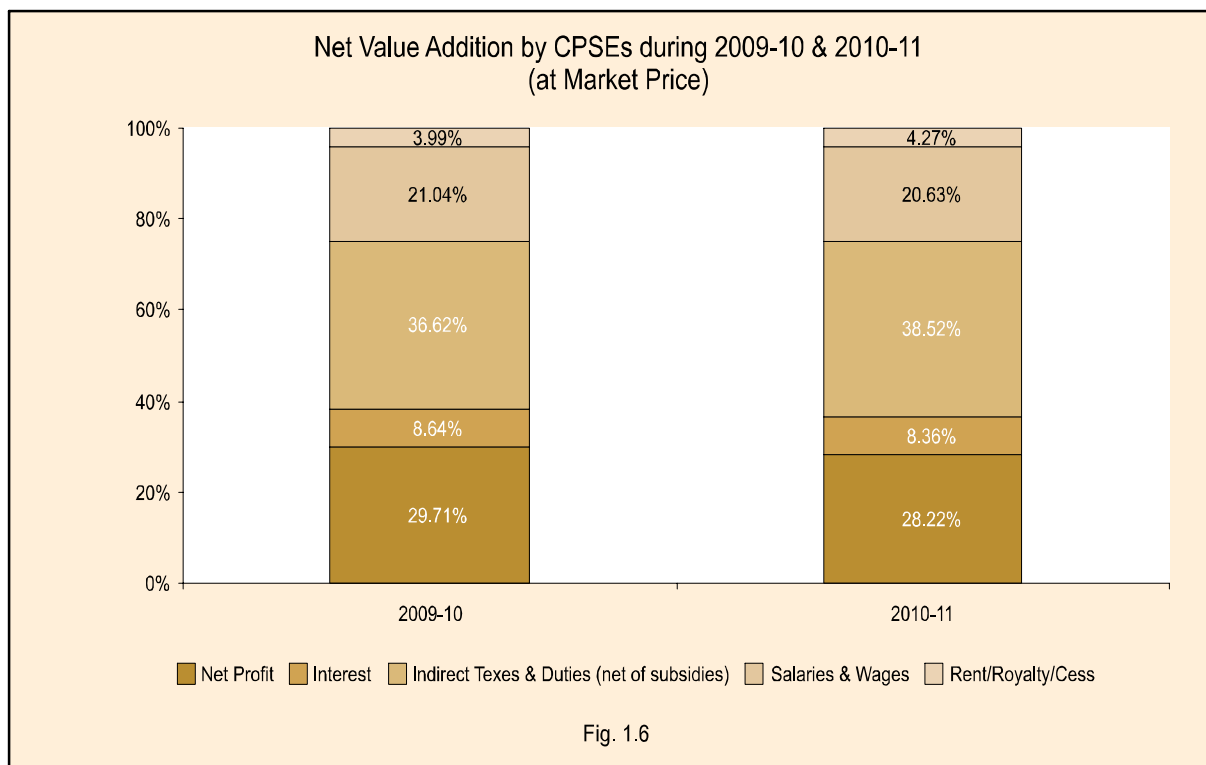
1.7.2 Components of Net Value Addition

In terms of 'net value addition' (excluding depreciation) generated by CPSEs in 2010-11, the share of profit (PBTEP) was the highest at 31.75 per cent followed by indirect tax and duties (30.84%), salary & wages (23.20%) and interest payment (9.41%) (Table 1.11). A comparison between the respective shares of each of these items during 2009-10 and 2010-11 shows a very little change during these two years (Fig.1.6).

Table 1.11
Components of Net Value Addition in CPSEs

(₹ in crore)

Sl. No.	Net Value Addition	2010-11	Share (%)	2009-10	Share(%)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Profit before Tax & EP (PBTEP)	131627	31.75	123951	33.12
2.	Interest	38997	9.41	36059	9.63
3.	Indirect Taxes & Duties (net of subsidies)	127861	30.84	109854	29.35
4.	Salaries & Wages	96210	23.20	87792	23.45
5.	Rent, royalty and cess	19919	4.80	16647	4.45
	Total	414614	100.00	374303	100.00



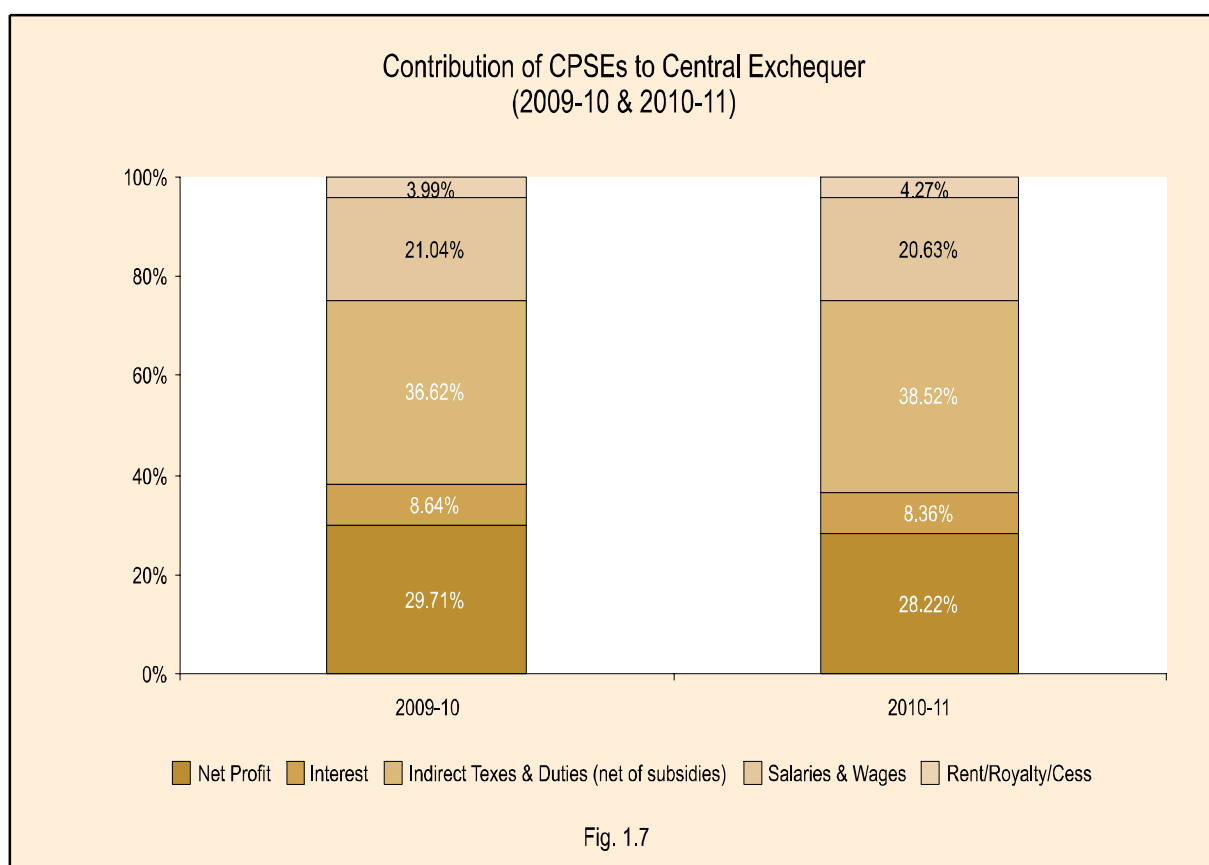
1.8 Contribution to the Central Exchequer

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 increase in the total contribution of CPSEs to the Central Exchequer during the year, which increased from ₹ 1,39,918 crore in 2009-10 to ₹ 1,56,124 crore in 2010-11. This was, furthermore, primarily due to increase in contribution towards 'customs duty' and 'excise duty' which increased from ₹ 6,896 crore and ₹ 52,627 crore in 2009-10 to ₹ 14,151 crore and ₹ 62,713 crore respectively in 2010-11. There was a significant increase in contribution from corporate taxes as well, which went up from ₹ 38,134 crore in 2009-10 to ₹ 43,369 crore in 2010-11. (Table 1.12). There was, however, a decline in 'other duties & taxes' and sales tax and dividend tax' during the year as compared to the previous year.

Table 1.12
Contribution to the Central Exchequer
for the last 3 years

(Rs in crore)

S.No	Particulars	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)
I.	Investment in CPSEs			
	1. Dividend	21900.70	19910.59	19387.36
	2. Interest	501.77	387.44	558.79
	Total (I)	22402.47	20298.03	19946.15
II.	Taxes and Duties (Central)			
	1. Excise Duty	62713.29	52627.02	63261.89
	2. Customs Duty	14151.23	6896.04	8704.53
	3. Corporate Tax	43369.31	38133.97	35338.55
	4. Dividend Tax	5140.02	9501.08	4211.67
	5. Sales Tax	2312.68	2665.58	2546.79
	6. Other Duties & Taxes	6035.49	9796.2	17533.62
	Total (II)	133722.02	119619.89	131597.05
	Grand Total (I+II)	156124.49	139917.92	151543.20



1.9 Government Disinvestment in CPSEs

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 was approved by the Government on 5th November, 2009. The objective of disinvestment policy was to develop people's ownership of CPSEs and to share in their wealth and prosperity while ensuring that government equity does not fall below 51% and Government retains the management control.

Keeping in view the policy on disinvestment, the following approach to disinvestment in CPSEs has been adopted:

- i) Already listed profitable CPSEs (not meeting the mandatory shareholding of 10%) are to be made compliant by Offer for sale by Government or by the CPSEs through issue of fresh or a combination of both.
- ii) Unlisted CPSEs with no accumulated losses and having earned net profit in three preceding consecutive years are to be listed.
- iii) Follow-on public offers would be considered in respect of profitable CPSEs having 10% or higher public ownership, taking into consideration the needs for capital investment of CPSE, on a case by case basis and Government could simultaneously or independently offer a portion of its equity shareholding in conjunction.
- iv) Disinvestment is to be considered on merit and on a case to case basis as each CPSE has a different equity structure; financial strength; fund requirement; sector of operation and factors that do not permit a uniform pattern of disinvestment. Thus, disinvestment is considered on merits and on a case-by-case basis.

1.10 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 64 in March 2011. 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 64 CPSEs registered with Board for Industrial and Financial Reconstruction (BIFR) till 30.6.2011, the BIFR has already disposed of 48 cases of CPSEs either through sanctioning revival schemes (15 cases), or declaring 'no longer sick' (2 cases) or dropping due to net worth becoming positive (5 cases) or dismissing the cases as non-maintainable (4 cases) or deregistered with BIFR/ others (2 cases) or recommending winding up (19

cases) or winding up notice issued (one case). The BIFR is yet to take further view on 16 cases of CPSEs.

The Government subsequently 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. Out of the 43 CPSEs, 24 CPSEs have posted profits. Out of these 24 CPSEs, 13 have been declared as turnaround companies as they have been in profits (profit before tax) continuously for three years and more.

Up to October 2011, cases of 67 sick CPSEs have been referred to BRPSE; out of which the Board has made recommendations in respect of 62 cases. Remaining 5 cases were remitted to the concerned administrative Ministries. Out of these 62 cases as on 31.10.2011, the Government has approved revival proposals in respect of 43 cases of CPSEs.

1.11 Board Structure of CPSEs

The CPSEs 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 of full time Functional Directors in CPSEs are determined as per the Schedule of the concerned CPSE. Proposals from various administrative Ministries/ Departments for initial categorization / up-gradation of CPSEs in appropriate schedule, personal up-gradation, creation of posts in CPSEs, etc. are considered in DPE in consultation with the Public Enterprises Selection Board (PESB).

There are 60 Schedule 'A', 71 Schedule 'B', 46 Schedule 'C', 4 Schedule 'D' and 67 uncategorised CPSEs as on 31.3.2011. One CPSE (THDC India Ltd.) has been upgraded from Schedule 'B' to Schedule 'A', one CPSE (Hindustan Prefab Ltd. has been upgraded from Schedule 'D' to 'C', one CPSE (Orissa Mineral Development Corporation) has been categorized as a Schedule 'B' CPSE and one CPSE (Bisra Stone Lime Company Ltd.) has been categorized as a Schedule 'C' CPSE.

1.11.1 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 DPE in 1992 provide for induction of outside professionals on the Boards of CPSEs as part-time non-official Directors. The revised guidelines provide that the number of functional Directors should not exceed 50% of the actual strength of the Board of Directors (BOD) and the number of Government nominee Directors on the BOD should not exceed two. In the case of listed CPSEs with an Executive Chairman, the guidelines provide that the number of non-official Directors shall be atleast 50% of the Board Members. In the case of CPSEs with a Non-executive Chairman, at least one-third of the

Board Members will have to be non-official Directors. The Functional Directors including the Chief Executive of the CPSEs are appointed by the concerned administrative Ministries on the recommendation of the Public Enterprises Selection Board (PESB). It has been decided that the candidates from State Level Public Enterprises (SLPEs) and the private sector will also be considered as non-internal candidates besides the candidates from CPSEs for selection to the post of Functional Directors in CPSEs subject to the eligibility criteria.

1.12 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 and executives 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 of scales of pay is followed in CPSEs.

1.12.1 Industrial Dearness Allowance (IDA)

The Government policy relating to pay scales and pay pattern is broadly that all employees of CPSEs should be on IDA pattern and related scales of pay. Instructions had been issued to all the administrative Ministries by 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*. DPE vide its O.M. dated 10.08.2009 has reiterated that 'appointments' including 'promotion' on or after 01.01.1989 in CDA scales of pay has to be in IDA scales of pay. There were all together 248 CPSEs (excluding Banks, Insurance Companies under the administrative control of the Central Government as on 31.3.2011). They employed 14.44 lakh workmen, clerical staff and executives as on 31.3.2011. 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 for the pay revision of Board level and below Board level executives (including non-unionized supervisors).

1.12.2 Central Dearness Allowance (CDA)

DPE vide its OM dated 14.10.2008 and 20.1.2009 has 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 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 DPE O.M. dated. 20.1.2009, guidelines on revised allowances for these employees have also been issued.

1.13 Employment

As on 31.3.2011, the 248 CPSEs employed over 14.44 lakh people (excluding casual workers). One-fourth of the manpower belong to managerial and supervisory cadres. The CPSEs have thus a highly skilled workforce, which is one of their basic strengths. The details of employment in CPSEs and per capita emoluments are shown in Table 1.13.

Table 1.13
Employment and Average Annual Emoluments

Year	Employees (in lakh) (Excl. casual & Daily rated workers)	Total Emoluments (₹ in crore)	Per Capita Emoluments (Rupees)
2006-07	16.14	52586	325869
2007-08	15.65	64306	410898
2008-09	15.33	83045	541716
2009-10	14.90	87792	589210
2010-11	14.44	96210	666276

1.14 Voluntary Retirement Scheme (VRS)

The CPSEs operate under dynamic market conditions; while, some of them may face shortage of staff, others may have excess manpower. The Government, therefore, initiated a Voluntary Retirement Scheme (VRS) to help rationalize their manpower. The basic parameters of the model Voluntary Retirement Scheme (VRS) which were notified by the Government vide Department of Public Enterprises' OM dated 5.10.1988 and 6.1.1989 were in force since 1988 till April 2000. The Government modified the scheme and introduced a new scheme of VRS on 5.5.2000 and again on 6.11.2001. As per the available information, about 3.57 lakh employees opted for Voluntary Retirement Scheme (VRS) during the period beginning with 1988 till 31.3.2011.

1.14.1 Counseling, Retraining and Redeployment (CRR)

Counseling, Retraining and Redeployment (CRR) is an attempt to enable the VRS optees in CPSEs to remain productive partners in the society. Accordingly, the National

Renewal Fund (NRF) that was established in February, 1992, aimed to cover both the expenses of VRS and the expenditure on retraining of retrenched workers in the organized sector. The main elements of CRR programme are Counseling, Retraining and Redeployment. Counseling helps the rationalized employees to absorb the shock 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. The selected training institute/nodal agencies imparts need-based training of 30 days/ 40 days / 60 day's modules. The training leads to redeployment mostly through self-employment. Presently, 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.

1.15 Memorandum of Understanding (MOU) system in CPSEs

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. 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. 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 -1.14 provides a summary of the performance of MoU signing CPSEs as reflected in their MoU rating during the last five years.

Table: 1.14

Summary of the performance of MoU signing CPSEs
(Numbers)

Rating	2006-07	2007-08	2008-09	2009-10	2010-11
Excellent	46	55	47	73	67
Very Good	37	34	34	31	42
Good	13	15	25	20	24
Fair	06	08	17	20	24
Poor	00	00	01	01	02
Total	102	112	124	145	159

1.16 Market Capitalisation of CPSEs Stocks

There were 48 CPSEs listed on the stock exchanges of India as on 31.03.2011; 3 CPSEs were, however, not being traded during 2010-11. Coal India Ltd. and Satluj Jal Vidyut Nigam Ltd. were listed during the year 2010-11. There are stocks of 45 CPSEs, which were being traded on the stock exchanges of India as on 31.3.2011. The total market capitalization of these 43 CPSEs based on stock prices on Mumbai Stock Exchange as on 31.03.2010 was ₹ 14,26,212 crore. Market capitalization of these 45 CPSEs as on 31.03.2011 (including Coal India Ltd. and Satluj Jal Vidhut Nigam Ltd.) stood at ₹ 15,06,698 crore. There was, therefore, increase in market capitalization of CPSEs by 5.64% (₹ 80,486 crore) on 31.03.2011 over 31.3.2010. During this period, the market capitalization of Mumbai Stock Exchange increased by 10.92% and Sensex increased by 10.94%. Market Capitalization (M_Cap) of all listed CPSEs as a percentage of BSE M_Cap, therefore, decreased from 23.13% as on 31.03.2010 to 22.03% as on 31.3.2011. Table 1.13 shows the closing price of listed CPSEs in BSE as on 31.3.2010 and 31.3.2011 (as well as M_Cap on these dates).

Table 1.15

Growth in Market Capitalisation of listed and traded CPSEs

S. No.	Company Name	BSE closing Market Price of stocks as on 31.3.2010	BSE closing Market Price of stocks as on 31.3.2011	Market Capitalization as on 31.3.2010	Market Capitalization as on 31.3.2011	% Change in Market Cap. (2011 over 2010)
		(in ₹)		(₹ in crore)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Andrew Yule & Co. Ltd.	43.55	25.40	1290.51	752.67	-41.68
2.	BEML Ltd.	1052.05	685.60	4381.21	2,855.15	-34.83
3.	Balmer Lawrie & Co. Ltd.	597.40	541.20	972.93	881.40	-9.41
4.	Balmer Lawrie Invsts. Ltd.	139.25	138.00	309.10	306.32	-0.9
5.	Bharat Electronics Ltd.	2190.45	1,678.75	17523.60	13,430.00	-23.36
6.	Bharat Heavy Electricals Ltd.	2385.45	2,060.85	116772.55	100,882.73	-13.61
7.	Bharat Immunologicals & Biologicals Corpn. Ltd.	18.45	13.48	79.67	58.21	-26.94

S. No.	Company Name	BSE closing Market Price of stocks as on 31.3.2010	BSE closing Market Price of stocks as on 31.3.2011	Market Capitalization as on 31.3.2010	Market Capitalization as on 31.3.2011	% Change in Market Cap. (2011 over 2010)
		(in ₹)		(₹ in crore)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
8.	Bharat Petroleum Corpn. Ltd.	516.70	611.30	18680.88	22,101.07	18.31
9.	Channi Petroleum Corpn. Ltd.	295.40	223.00	4398.84	3,320.72	-24.51
10.	Coal India Ltd.		347.10		219,241.01	
11.	Container Corpn. Of India Ltd.	1300.25	1,212.00	16901.01	15,753.91	-6.79
12.	Dredging Corpn. Of India Ltd.	607.30	345.05	1700.44	966.14	-43.18
13.	Engineers India Ltd.	2199.90	303.05	12353.78	10,220.97	-17.26
14.	Fertiliser & Chemicals, Travancore Ltd.	45.30	39.35	1607.12	1,396.03	-13.13
15.	GAIL (india)Ltd.	409.80	465.00	51982.20	58,984.20	13.47
16.	HMT Ltd.	78.25	59.30	5930.18	4,494.05	-24.22
17.	Hindustan Copper Ltd.	533.35	291.15	49346.50	26,937.72	-45.41
18.	Hindustan Organic Chemicals Ltd.	37.15	32.85	250.27	220.66	-11.83
19.	Hindustan Petroleum Corpn. Ltd.	318.45	356.95	10783.58	12,087.30	12.09
20.	ITI Ltd.	46.75	32.10	1346.40	924.48	-31.34
21.	India Tourism Devp. Corpn. Ltd.	104.55	104.55	896.72	896.72	
22.	Indian Oil Corpn. Ltd.	296.75	334.25	72049.49	81,154.31	12.64
23.	MMTC Ltd.	31395.70	926.50	156978.50	92,650.00	-40.98
24.	Madras Fertilizer Ltd.	14.35	22.6	232.67	364.11	56.49
25.	Mahanagar Telephone Nigam Ltd.	73.20	45.45	4611.60	2,863.35	-37.91
26.	Maharastra Elektros melt Ltd.	586.30	298.50	1407.12	716.40	-49.09
27.	Mangalore Refinery & Petrochemicals Ltd.	76.10	64.35	13339.59	11,277.97	-15.45
28.	NMDC Ltd.	294.15	283.45	116622.12	112,379.88	-3.64
29.	NTPC Ltd.	207.00	193.00	170681.11	159,137.46	-6.76
30.	National Aluminium Co. Ltd.	406.35	95.65	26181.52	24,651.29	-5.84
31.	National fertilizer Ltd.	98.35	104.55	4824.84	5,129.00	6.3
32.	Neyveli Lignite Corpn. Ltd.	144.85	103.95	24301.62	17,439.79	-28.24
33.	Oil & natural Gas Corpn. Ltd.	1098.50	290.10	234955.15	248,194.77	5.63
34.	Power Finance Corpn. Ltd.	258.25	250.25	29641.08	28,722.86	-3.1
35.	Power Grid Corpn. Of India Ltd.	107.15	101.80	45097.73	47,130.60	4.51
36.	Rashtriya Chemicals & Fertilizer Ltd.	79.50	79.50	4,385.92	4,385.92	0
37.	Rural Electrification Corpn. Ltd.	249.90	254.15	24676.60	25,096.27	1.7
38.	Scooters India Ltd.	25.10	37.50	107.91	161.22	49.4
39.	Shipping Corpn. Of India Ltd.	156.40	107.90	662.82	5,025.97	-24.11
40.	State Trading Corpn. Of India Ltd.	460.30	245.00	2761.80	1,470.00	-46.77
41.	Steel Authority Of India Ltd.	251.80	169.75	104003.49	70,113.55	-32.59
42.	NHPC	30.50	25.35	37517.27	31,182.38	-16.89
43.	Oil India Ltd.	1150.55	1,312.85	27665.48	31,568.05	14.11
44.	Hindustan Fluorocarbons Ltd.	19.90	15	39.20	29.55	-24.62
45.	Satluj Jal Vidhyut Nigam Ltd.		22.10		9,141.94	
I	Total Market Capitalization of CPSEs			1426212	1,506,698.10	5.64
II	Total Market Capitalization of BSE			6165619.00	6,839,082.89	10.92
III	BSE Sensex			17527.77	19,445.22	10.94
IV	Market Capitalization of CPSEs as % of BSE Cap			23.13	22.03	-4.76

Note:

- i) Hindustan Photofilm Corporation Ltd., ii. IRCON international,
 ii) KIOCL has no trading.
 iii) Satluj Jal Nigam Ltd. was listed on 20.5.2010 and Coal India Ltd. was listed on 04.11.2010.

Central Pubic Sector Enterprises under various Five Year Plans

Sl. No.	Ministry / Deptt. / CPSE	Year of Incorporation	Holding/ Subsidiary Company
Prior to Five Year Plan (1919-50)			
1	BIECCO LAWRIE & CO. LTD. *	1919	H
2	BALMER LAWRIE & CO. LTD. *	1924	S
3	MAZAGON DOCK LTD.	1934	H
4	FERTILIZERS & CHEMICALS (TRAVANCORE) LTD.	1943	H
5	NEPA LTD.	1947	H
6	I T I LTD.	1950	H
7	INDIAN RARE EARTHS LTD.	1950	H
First Five Year Plan (1951-55)			
1	HINDUSTAN SHIPYARD LTD.	1952	H
2	HMT LTD.	1953	H
3	HINDUSTAN PREFAB LTD.	1953	H
4	NATIONAL RESEARCH DEVELOPMENT CORPN.	1953	H
5	BHARAT ELECTRONICS LTD.	1954	H
6	HINDUSTAN ANTIBIOTICS LTD.	1954	H
7	HINDUSTAN INSECTICIDES LTD.	1954	H
8	NATIONAL SMALL INDUSTRIES CORPN. LTD.	1955	H
Second Five Year Plan (1956-60)			
1	NEYVELI LIGNITE CORPN. LTD.	1956	H
2	STATE TRADING CORPN. OF INDIA LTD.	1956	H
3	OIL & NATURAL GAS CORPORATION LTD.	1956	H
4	EXPORT CREDIT GUARANTEE CORPN. OF INDIA LTD.	1957	H
5	CENTRAL WAREHOUSING CORPN.	1957	H
6	NATIONAL PROJECTS CONSTRUCTION CORPN. LTD.	1957	H
7	HEAVY ENGINEERING CORPN. LTD.	1958	H
8	NMDC Ltd.	1958	H
9	HINDUSTAN SALTS LTD.	1959	H
10	HINDUSTAN ORGANIC CHEMICALS LTD.	1960	H
11	GARDEN REACH SHIPBUILDERS & ENGINEERS LTD.	1960	H
12	HINDUSTAN PHOTO FILMS MANUFACTURING CO. LTD.	1960	H
13	TUNGABHADRA STEEL PRODUCTS LTD.	1960	H
14	NATIONAL BLDG. CONSTN. CORPN. LTD.	1960	H
Third Five Year Plan (1960-65)			
1	FERTILIZER CORPN. OF INDIA LTD.	1961	H
2	INDIAN DRUGS & PHARMACEUTICALS LTD.	1961	H
3	SHIPPING CORPORATION OF INDIA LTD.	1961	H
4	HANDICRAFTS & HANDLOOM EXPORTS CORP. OF INDIA LTD.	1962	H
5	NATIONAL SEEDS CORPN. LTD.	1963	H
6	M M T C LTD.	1963	H
7	BEML LTD.	1964	H
8	HINDUSTAN AERONAUTICS LTD.	1964	H
9	BHARAT HEAVY ELECTRICALS LTD.	1964	H
10	INSTRUMENTATION LTD.	1964	H
11	SAMBHAR SALTS LTD.	1964	S
12	INDIAN OIL CORPORATION LTD.	1964	H
13	HINDUSTAN STEELWORKS COSTN. LTD.	1964	H
14	M S T C LTD.	1964	H
15	FOOD CORPN. OF INDIA	1965	H
16	CEMENT CORPN. OF INDIA LTD.	1965	H
17	TRIVENI STRUCTURALS LTD.	1965	H
18	CHENNAI PETROLEUM CORPORATION LTD.	1965	S
19	ENGINEERS INDIA LTD.	1965	H
20	ONGC VIDESH LTD.	1965	S

Sl. No.	Ministry / Deptt. / CPSE	Year of Incorporation	Holding/ Subsidiary Company
Annual Plan (1966-68)			
1	MADRAS FERTILIZERS LTD.	1966	H
2	HLL LIFECARE LTD.	1966	H
3	BHARAT HEAVY PLATE & VESSELS LTD.	1966	S
4	INDIA TOURISM DEV. CORPN. LTD.	1966	H
5	GOA SHIPYARD LTD.	1967	H
6	HINDUSTAN COPPER LTD.	1967	H
7	CENTRAL INLAND WATER TRANSPORT CORPN. LTD. *	1967	H
8	ELECTRONICS CORPN. OF INDIA LTD.	1967	H
9	URANIUM CORPORATION OF INDIA LTD.	1967	H
10	NATIONAL TEXTILE CORPN. LTD. *	1968	H
Fourth Five Year Plan (1969-73)			
1	RURAL ELECTRIFICATION CORPN. LTD.	1969	H
2	STATE FARMS CORPORATION OF INDIA LTD.	1969	H
3	WAPCOS LTD.	1969	H
4	BHARAT DYNAMICS LTD.	1970	H
5	BHARAT PUMPS & COMPRESSORS LTD.	1970	H
6	ENGINEERING PROJECTS (INDIA) LTD.	1970	H
7	HINDUSTAN PAPER CORPORATION LTD.	1970	H
8	HOUSING & URBAN DEV. CORPN. LTD.	1970	H
9	COTTON CORPN. OF INDIA LTD.	1970	H
10	HOTEL CORPN. OF INDIA LTD.	1971	S
11	JUTE CORPN. OF INDIA LTD.	1971	H
12	NAGALAND PULP & PAPER COMPANY LTD.	1971	S
13	P E C LTD.	1971	H
14	AIR INDIA CHARTERS LTD.	1972	S
15	BHARAT COKING COAL LTD.	1972	S
16	BRIDGE & ROOF CO.(INDIA) LTD. *	1972	H
17	COCHIN SHIPYARD LTD.	1972	H
18	HINDUSTAN CABLES LTD.	1972	H
19	MINERAL EXPLORATION CORPN. LTD.	1972	H
20	RICHARDSON & CRUDDAS(1972) LTD. *	1972	H
21	SCOOTERS INDIA LTD.	1972	H
22	ARTIFICIAL LIMBS MFG. CORPN. OF INDIA	1973 \$	H
23	COAL INDIA LTD.	1973	H
24	MECON LTD.	1973	H
25	MISHRA DHATU NIGAM LTD.	1973	H
26	STEEL AUTHORITY OF INDIA LTD.	1973	H
Fifth Five Year Plan (1974-78)			
1	NATIONAL FERTILIZERS LTD.	1974	H
2	rites LTD.	1974	H
3	CENTRAL ELECTRONICS LTD.	1974	H
4	MAHARASHTRA ELEKTROSMELT LTD.	1974	S
5	CENTRAL COALFIELDS LTD.	1975	S
6	CENTRAL MINE PLANNING & DESIGN INSTITUTE LTD.	1975	S
7	EASTERN COALFIELDS LTD.	1975	S
8	WESTERN COALFIELDS LTD.	1975	S
9	HMT (INTERNATIONAL) LTD.	1975	S
10	NATIONAL FILM DEV. CORPN. LTD.	1975	H
11	NHPC LTD.	1975	H
12	NTPC LTD.	1975	H
13	INDIA TRADE PROMOTION ORGANISATION	1976	H
14	BRAITHWAITE & CO. LTD. *	1976	S
15	BURN STANDARD COMPANY LTD. *	1976	S
16	BHARAT PETROLEUM CORPN. LTD.	1976	H
17	HINDUSTAN PETROLEUM CORPN. LTD.	1976	H

Sl. No.	Ministry / Deptt. / CPSE	Year of Incorporation	Holding/ Subsidiary Company
18	NORTH EASTERN ELECTRIC POWER CORPORATION LTD.	1976	H
19	IRCON INTERNATIONAL LTD.	1976	H
20	KIOCL LTD.	1976	H
21	CENTRAL COTTAGE INDUSTRIES CORPN. OF INDIA LTD.	1976	H
22	NORTH EASTERN HANDICRAFTS & HANDLOOM DEV.CORPN. LTD.	1977	H
23	ANDAMAN & NICOBAR ISL. FOREST & PLANT.DEV.CORP.LTD	1977	H
24	DREDGING CORPN. OF INDIA LTD.	1977	H
25	MANGANESE ORE(INDIA) LTD.	1977	H
26	HINDUSTAN FERTILIZER CORPN. LTD.	1978	H
27	PROJECTS & DEVELOPMENT INDIA LTD.	1978	H
28	RASHTRIYA CHEMICALS AND FERTILIZERS LTD.	1978	H
29	RAJASTHAN DRUGS & PHARMACEUTICALS LTD.	1978	S
30	TELECOMMUNICATIONS CONSULTANTS (INDIA) LTD.	1978	H
31	BHARAT WAGON & ENGG. CO. LTD. *	1978	H
Annual Plan (1979-80)			
1	ORISSA DRUGS & CHEMICALS LTD.	1979	S
2	INDIAN MEDICINES & PHARMACEUTICAL CORPN. LTD.	1979	H
3	ANDREW YULE & COMPANY LTD. *	1979	H
4	HOOGHLY PRINTING COMPANY LTD. *	1979	S
5	FERRO SCRAP NIGAM LTD.	1979	S
6	NATIONAL JUTE MANUFACTURES CORPORATION LTD.	1980	H
Sixth Five Year Plan (1980-84)			
1	BENGAL CHEMICALS & PHARMACEUTICALS LTD. *	1981	H
2	KARNATAKA ANTIBIOTICS & PHARMACEUTICALS LTD.	1981	H
3	HMT BEARINGS LTD.	1981	S
4	RAJASTHAN ELECTRONICS AND INSTRUMENTS LTD.	1981	H
5	EdCIL(India) Ltd.	1981	H
6	NATIONAL ALUMINIUM COMPANY LTD.	1981	H
7	OIL INDIA LTD.	1981	H
8	BRITISH INDIA CORPORATION LTD. *	1981	H
9	STCL LTD.	1982	S
10	NORTH EASTERN REGIONAL AGRI. MARKETING CORP.LTD.	1982	H
11	HINDUSTAN NEWSPRINT LTD.	1982	S
12	RASHTRIYA ISPAT NIGAM LTD.	1982	H
13	HINDUSTAN FLUOROCARBONS LIMITED	1983	S
14	AIRLINE ALLIED SERVICES LTD.	1983	S
15	HSCC (INDIA) LTD.	1983	H
16	NATIONAL HANDLOOM DEVELOPMENT CORPORATION LTD.	1983	H
17	RANCHI ASHOK BIHAR HOTEL CORPN. LTD.	1983	S
18	UTKAL ASHOK HOTEL CORPN. LTD.	1983	S
19	HINDUSTAN VEGETABLE OILS CORPN. LTD. *	1984	H
20	VIGNYAN INDUSTRIES LTD.	1984	S
21	BBJ CONSTRUCTION COMPANY LTD.	1984	S
22	TYRE CORPORATION OF INDIA LTD. *	1984	H
23	GAIL (INDIA) LTD.	1984	H
24	HOOGHLY DOCK AND PORT ENGINEERS LTD. *	1984	H
Seventh Five Year Plan (1985-89)			
1	PAWAN HANS HELICOPTERS LTD.	1985	H
2	NORTHERN COALFIELDS LTD.	1985	S
3	SOUTH EASTERN COALFIELDS LTD.	1985	S
4	ASSAM ASHOK HOTEL CORPN. LTD.	1985	S
5	DONYI POLO ASHOK HOTEL LTD.	1985	S
6	MADHYA PRADESH ASHOK HOTEL CORPN. LTD.	1985	S
7	MAHANAGAR TELEPHONE NIGAM LTD.	1986	H
8	BHARAT BHARI UDYOG NIGAM LTD.	1986	H

Sl. No.	Ministry / Deptt. / CPSE	Year of Incorporation	Holding/ Subsidiary Company
9	POWER FINANCE CORPORATION	1986	H
10	INDIAN RAILWAY FINANCE CORPORATION LTD.	1986	H
11	PONDICHERRY ASHOK HOTEL CORPN. LTD.	1986	S
12	INDIAN RENEWABLE ENERGY DEVT.AGENCY LTD.	1987	H
13	BIRDS JUTE & EXPORTS LTD. *	1987	S
14	NUCLEAR POWER CORPN. OF INDIA LTD.	1987	H
15	MANGALORE REFINERY & PETROCHEMICALS LTD.	1988	S
16	SATLUJ JAL VIDYUT NIGAM LTD.	1988	H
17	TEHRI HYDRO DEVELOPMENT CORP. LTD.	1988	H
18	CONTAINER CORPORATION OF INDIA LTD.	1988	H
19	INDIAN VACCINE CORP. LTD.	1988	H
20	POWER GRID CORPORATION OF INDIA LTD.	1989	H
21	BHARAT IMMUNOLOGICALS & BIOLOGICALS CORP. LTD.	1989	H
22	NATIONAL SCHEDULED CASTES FINANCE & DEVP. CORPN.	1989	H
23	J & K MINERAL DEVELOPMENT CORPN. LTD.	1989	S
Annual Plan (1990-91)			
1	BEL OPTRONICS DEVICES LTD.	1990	S
2	KONKAN RAILWAY CORPORATION LTD.	1990	H
Eighth Five Year Plan (1992-96)			
1	NATIONAL BACKWARD CLASSES FINANCE & DEVP.CO.	1992	H
2	MAHANADI COALFIELDLS LTD.	1993	S
3	NUMALIGARH REFINARY LTD.	1993	S
4	ANTRIX CORPORATION LTD.	1993	H
5	BIHAR DRUGS & ORGANIC CHEMICALS LTD.	1994	S
6	IDPL (TAMILNADU) LTD.	1994	S
7	NATIONAL MINORITIES DEVP. & FINANCE CORPN.	1994	H
8	CERTIFICATION ENGINEERS INTERNATIONAL LTD.	1994	S
9	NATIONAL INFORMATICS CENTRE SERVICES INCORPORATED	1995	H
10	BROADCAST ENGG. CONSULTANTS INDIA LTD.	1995	H
11	AIRPORTS AUTHORITY OF INDIA LTD.	1996	H
Ninth Five Year Plan (1997-2001)			
1	NATIONAL HANDICAPPED FINANCE & DEVPT. CORPN.	1997	H
2	NATIONAL SAFAI KARAMCHARIS FINANCE & DEVPT. CORPN	1997	H
3	PUNJAB ASHOK HOTEL COMPANY LTD.	1998	S
4	HMT CHINAR WATCHES LTD.	1999	S
5	HMT MACHINE TOOLS LTD.	1999	S
6	HMT WATCHES LTD.	1999	S
7	INDIAN RAILWAY CATERING AND TOURISM CORPN. LTD.	1999	H
8	MUMBAI RAILWAY VIKAS CORPORATION LTD.	1999	H
9	ENNORE PORT LTD.	1999	H
10	KARNATAKA TRADE PROMOTION ORGANISATION	2000	S
11	TAMIL NADU TRADE PROMOTION ORGANISATION	2000	S
12	BHARAT SANCHAR NIGAM LTD.	2000	H
13	MILLENNIUM TELECOM LTD.	2000	S
14	NARMADA HYDROELECTRIC DEVELOPMENT CORPN. LTD.	2000	S
15	RAILTEL CORPORATION INDIA LTD.	2000	H
16	BALMER LAWRIE INVESTMENTS LTD.	2001	H
17	KUMARAKRUPPA FRONTIER HOTELS LTD.	2001	S
18	NATIONAL SCHEDULED TRIBES FINANCE & DEVP. CORPN.	2001	H
Tenth Five Year Plan (2002-2006)			
1	BRAHMAPUTRA VALLEY FERTILIZER CORPN. LTD.	2002	H
2	FCI ARAVALI GYPSUM & MINERALS (INDIA) LTD.	2003	H
3	AIR INDIA AIR TRANSPORT SERVICES LTD.	2003	S
4	NTPC ELECTRIC SUPPLY COMPANY LTD.	2003	S
5	NTPC HYDRO LTD.	2003	S
6	NTPC VIDYUT VYAPAR NIGAM LTD.	2003	S

Sl. No.	Ministry / Deptt. / CPSE	Year of Incorporation	Holding/ Subsidiary Company
7	RAIL VIKAS NIGAM LTD.	2003	H
8	BHARATIYA NABHIKIYA VIDYUT NIGAM LTD.	2003	H
9	SETHUSAMUDRAM CORPN. LTD.	2004	H
10	AIR INDIA ENGINEERING SERVICES LTD.	2006	S
11	NLC TAMIL NADU POWER LTD.	2006	S
12	INDIA INFRASTRUCTURE FINANCE CO. LTD.	2006	H
13	CHHATTISHGARH SURGUJA POWER LTD.	2006	S
14	SECURITY PRINTING & MINTING CORPN. INDIA LTD.	2006	H
15	BHARAT PETRO RESOURCES JPDA	2006	S
16	BHARAT PETRO RESOURCES LTD.	2006	S
17	BRAHAMPUTRA CRACKERS & POLYMER LTD.	2006	S
18	COASTAL KARNATAKA POWER LTD.	2006	S
19	COASTAL MAHARASHTRA MEGA POWER LTD.	2006	S
20	KANTI BIJLEE UTPADAN NIGAM LTD.	2006	S
21	ORISSA INTEGRATED POWER LTD.	2006	S
22	REC TRANSMISSION PROJECT CO. LTD.	2006	S
23	FRESH & HEALTHY ENTERPRISES LTD.	2006	S
Eleventh Five Year Plan (2007-2012)			
1	Air India Ltd.	2007	H
2	CENTRAL RAILSIDE WAREHOUSING CO. LTD.	2007	S
3	BHARTIYA RAIL BIJLEE CO. LTD.	2007	S
4	COASTAL TAMIL NADU POWER LTD.	2007	S
5	REC POWER DISTRIBUTION CO. LTD.	2007	S
6	DEDICATED FRIGHT CORRIDOR CORP. OF INDIA LTD.	2007	H
7	JAGDISHPUR PAPER MILLS LTD.	2008	S
8	CREDA HPCL BIOFUEL LTD.	2008	S
9	GAIL GAS LTD.	2008	S
10	PFC CONSULTING LTD.	2008	S
11	MJSJ COAL LTD.	2009	S
12	MNH SHAKTI LTD.	2009	S
13	GHOARPALLI INTEGRATED POWER COMPANY LTD.	2009	S
14	LOKTAK DOWNSTREAM HYDROELECTRIC CORPORATION LTD.	2009	S
15	SAKHIGOPAL INTEGRATED POWER COMPANY LTD.	2009	S
16	BISRA STONE LIME COMPANY LTD.	2010	S
17	EASTERN INVESTMENT LTD.	2010	S
18	HPCL BIOFUELS LTD.	2010	S
19	IRCON INFRASTRUCTURE & SERVICES LTD.	2010	S
20	ORISSA MINERAL DEVELOPMENT COMPANY LTD.	2010	S
21	POWER SYSTEM OPERATION CORPORATION LTD.	2010	S
22	TATTIYA ANDHRA MEGA POWER LTD.	2010	S
23	BHEL ELECTRICAL MACHINE LTD.	2011	S
24	NMDC-CMD LTD.	2008	S
25	BITES INFRASTRUCTURE SERVICES LTD.	2011	S

Note: * ~ These enterprises were originally in the private sector, and were taken over by the Government on their falling sick.

~ SAIL was originally Hindustan Steel Ltd (HSL), which was set up in 1954.

\$ ~ Coal India Ltd. was originally National Coal Development Corporation (NCDC), which was set up in 1956.

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 ₹ 11,29,983 crore in 2009-10 to ₹ 12,63,665 crore in 2010-11, showing an increase of ₹ 1,33,682 crore or a growth of 11.83 per cent over the previous

year. In terms of share in 'gross fixed capital formation' (GFCF) of the country, however, the share of gross block in CPSEs declined over the previous year, which came down from 7.53 per cent in 2009-10 to 5.76 per cent in 2010-11 (Table 2.1).

Table 2.1
Growth in real investment / Gross Block

Year	Accumulated Gross Block @ in CPSEs (₹ crore)	Gross Block during the year (₹ crore)	Growth over the previous year (in%)	GFCF [^] , in the economy during the year* (₹ crore)	Gross Block in CPSEs, as % of GFCF (3)/(5)*100
(1)	(2)	(3)	(4)	(5)	(6)
2002-03	525301	34903	7.12	584366	5.97
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	862240	79572	10.17	1630513	4.88
2008-09	978167	115927	13.44	1838499	6.31
2009-10	1129983	151816	15.52	2016186	7.53
2010-11	1263665	133682	11.83	2322097	5.76

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

* Source Central Statistical Organisation.

2.2 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

₹ 29 crore in 5 enterprises in 1951 to ₹ 6,66,848 crore in 248 enterprises as on 31.3.2011 (Table 2.2). The financial investment during 2010-11 over 2009-10, moreover, increased by ₹ 86,064 crore or by 14.8 percent.

Table 2.2
Growth in (Financial) Investment #

Particulars	Total investment (₹ in crore)	Number of Enterprises
(1)	(2)	(3)
At the commencement of the 1st Five Year Plan (1.4.1951)	29	5
At the commencement of the 2 nd Five Year Plan (1.4.1956)	81	21
At the commencement of the 3 rd Five Year Plan (1.4.1961)	948	47
At the end of 3 rd Five Year Plan (31.3.1966)	2410	73
At the commencement of the 4 th Five Year Plan (1.4.1969)	3897	84
At the commencement of the 5 th Five Year Plan (1.4.1974)	6237	122
At the end of 5 th Five Year Plan (31.3.1979)	15534	169
At the commencement of the 6 th Five Year Plan (1.4.1980)	18150	179
At the commencement of the 7 th 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	247

Particulars	Total investment (₹ in crore)	Number of Enterprises
(1)	(2)	(3)
At the end of first year of Eleventh Five Year Plan (31.3.2008)	455554	242
At the end of second year of Eleventh Five Year Plan (31.3.2009)	513532	246
At the end of third year of Eleventh Five Year Plan (31.3.2010)	580784	249
At the end of fourth year of Eleventh Five Year Plan (31.3.2011)	666848	248

Note: # As in the Balance Sheet (i.e. paid up capital +pending Share application money +long term loan)

2.3 Changing structure 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

was 32.57 percent during 2002-03, it declined to 23.31 percent in 2010-11. The share of 'long-term loans', on the other hand, went up from 66.56 percent in 2002-03 to 76.40 percent in 2010-11 (Table 2.3). The total investment has increased significantly in CPSEs over the years.

Table 2.3
Components of Financial Investment

(₹ in crore)

Year ending	Paid-up Capital	Pending 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 (29.80)	6306 (1.50)	288847 (68.70)	420476 (100)
As on 31.3.2008	131232 (34.71)	3090 (6.78)	321232 (70.51)	455554 (100)
As on 31.3.2009	138734 (27.02)	3222 (0.62)	371576 (72.36)	513532 (100)
As on 31.3.2010	148367 (25.55)	1748 (0.30)	430669 (74.15)	580784 (100)
As on 31.3.2011	155433 (23.31)	1963 (0.29)	509452 (76.40)	666848 (100)

2.3.1 Sources of Financial Investment

While the Central Government continues to have majority equity holding in CPSEs (78.84%), investment both in terms of equity and long terms 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', over the years, moreover shows a significant change in the investment pattern of CPSEs during 2004-05 to 2010-11 (Table 2.4). Whereas the share of the Central Government in total

(financial) investment (both equity and long term loans) stood at 37.78 per cent in 2004-05, it declined to 25.16 per cent in 2010-11. 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 59.93 per cent in 2010-11. 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 shown marginal increase from 8.37 per cent in 2004-05 to 8.73 per cent in 2010-11. The share of 'State governments' in total financial investment has shown a decline from 0.94 percent in 2004-05 to 0.57 percent in 2010-11, which is given below (Table 2.4).

Table 2.4
Sources of Investment

(₹ in crore)

Items	Central	State	Holding	Foreign	FI/Banks	Share	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)	51535	230	16409	32935	220123	-	
E+L	162005	3774	27622	34562	224501	3090	455554
% of Total (E+L)	35.56	0.83	6.06	7.59	49.28	0.68 (100.00)	
As on 31.3.2009							
Equity (E)	117319	3441	11701	1332	4941		-
Loan (L)	40563	92	20782	43710	266429		
(E+L)	157882	3533	32483	45042	271370	3222	513532
%of total (E+L)	30.74	0.69	6.33	8.77	52.84	0.63 (100.00)	
As on 31.3.2010							
Equity (E)	122201	3657	13487	1416	7606		-
Loan (L)	34803	92	21588	40515	333671	-	
(E+L)	157004	3749	35075	41931	341277	1748	580784
%of total (E+L)	27.03	0.65	6.04	7.22	58.76	0.30	(100.00)
As on 31.3.2011							
Equity (E)	122547	3705	14387	2699	12095		-
Loan (L)	45213	96	21095	55493	387556	-	
(E+L)	167760	3801	35482	58192	399651	1963	666848
%of total (E+L)	25.16	0.57	5.32	8.73	59.93	0.29	(100.00)

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. Plan outlay in CPSEs has accordingly gone up from ₹ 59189.79 crore in 2002-03 to ₹ 167494.58 crore in 2010-11 (Table 2.5). The

respective shares of IR, EBR (extra budgetary support) and Budgetary Support have, nevertheless, undergone a change. The share of IR has increased from 55.51 per cent of plan outlay in 2002-03 to 64.00 per cent in 2010-11 and the share of Budgetary Support has come down from 8.98 percent in 2002-03 to 2.46 percent in 2010-11. The share of extra budgetary resources decreased marginally from 35.51 percent in 2002-03 to 33.54 percent in 2010-11 (Table 2.5).

Table.2.5
Plan Investment in CPSEs
(2002-03 to 2010-11)

(₹ in crore)

Year	Internal Resources	Extra Budgetary 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 (60.86)	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)
2008-09	72815.68 (55.06)	75807.99 (43.71)	1629.64 (1.23)	132253.31 (100)
2009-10	84980.15 (54.80)	65633.85 (42.32)	4458.75 (2.88)	155072.75 (100)
2010-11	107199.31 (64.00)	56174.62 (33.54)	4120.65 (2.46)	167494.58 (100)

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 ₹ 27176.50 crores in 2002-03 to ₹ 72695.20 crore in 2010-11 (Table 2.6). In terms of respective shares of the different components of IR, namely, 'depreciation', 'retained profit'

and 'deferred revenue expenses'/DRE, there has been a significant change. Whereas the share of 'depreciation' in IR declined from 48.79 per cent in 2002-03 to 25.52 per cent in 2010-11, the share of 'retained profit' in IR went up from 50.07 per cent in 2002-03 to 62.46 per cent in 2010-11. The 'DRE' in IR increased from 1.14 per cent in 2002-03 to 12.02 per cent in 2010-11. (Table 2.6).

Table 2.6
Internal Resources of CPSEs
(2002-03 to 2010-11)

(₹ in crore)

Year	No. of CPSEs which generated IR	Depreciation	DRE written off	Retained Profit	Total
2002-03	119	26477.41 (48.79)	619.18 (1.14)	27176.50 (50.07)	54273.09 (100.00)
2003-04	139	30526.72 (40.48)	769.15 (1.02)	44116.90 (58.50)	75412.77 (100.00)
2004-05	143	32477.42 (38.73)	537.60 (0.64)	50847.60 (60.63)	83862.62 (100.00)
2005-06	160	34540.93 (40.36)	797.93 (0.93)	50248.20 (58.71)	85587.06 (100)
2006-07	154	32013.20 (33.28)	5475.33 (6.69)	58713.84 (61.03)	96202.27 (100.00)
2007-08	160	35436.51 (35.51)	5653.54 (5.65)	58731.80 (58.84)	99821.85 (100.00)
2008-09	158	34432.79 (31.08)	7516.89 (6.78)	68854.43 (62.14)	110804.11 (100)
2009-10	157	28745.82 (26.52)	9575.56 (8.84)	70061.06 (64.64)	108382.44 (100.00)
2010-11	158	29703.65 (25.52)	13996.18 (12.02)	72695.20 (62.46)	116395.03 (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 measured in terms of gross block. The share of 'manufacturing' CPSEs in gross block, was the highest at 27.83 percent followed by 'electricity' (25.16%), 'services' (23.20%) and 'mining' (22.99%). In terms of growth in

investment over the previous year, the highest growth (other than CPSEs under construction) was registered by 'manufacturing' sector (14.80%), followed by 'mining' (13.00%), 'electricity' (12.31%) and 'agriculture' (8.18%). The overall growth in investment in CPSEs, in terms of 'gross block', stood at 11.83 per cent in 2010-11 over the previous year. (Table 2.7)

Table 2.7
Pattern of investment in terms of Gross Block
(2009-10 and 2010-11)

(₹ 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 31.3.2011)
		31.3.2011	31.3.2010		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Agriculture	119110	8.18	0.01	0.01
2.	Mining	290600	257173	13.00	13.00
3.	Manufacturing	351634	306297	14.80	27.83
4.	Electricity	317908	283059	12.31	25.16
5.	Services	293167	277352	5.70	23.20
6.	CPSEs yet to Commence Operations	10237	5992	70.88	0.81
	Total	1263665	1129983	11.83	100.00

1.5.1 Top Ten Enterprises in terms of Gross Block

Gross block in top ten enterprises amounted to ₹ 8,70,431 crore as on 31.3.2011. This was equal to 68.88 percent of the total gross block in all CPSEs. Oil &

Natural Gas Corporation Limited, Bharat Sanchar Nigam Ltd. and NTPC Ltd are the top three CPSEs amongst the top ten CPSEs in terms of gross block during the year 2010-11 (Table 2.8). The share of these 3 CPSEs alone was 37.92% of the total gross block of all the CPSEs as on 31.3.2011.

Table 2.8
Gross Block in Top Ten Enterprises, as on 31.3.2011

(₹ in crore)

Sl.	CPSEs	Investment in terms of Gross Block*	Share in total Gross Block(%)
(1)	(2)	(3)	(4)
1.	Oil & Natural Gas Corporation Ltd.	195770	15.49
2.	Bharat Sanchar Nigam Ltd.	172338	13.64
3.	NTPC Ltd.	111026	8.79
4.	Indian Oil Corporation Ltd.	105785	8.37
5.	Power Grid Corporation of India Ltd.	76976	6.09
6.	Steel Authority of India Ltd.	60489	4.79
7.	NHPC Ltd.	39997	3.17
8.	Air India Ltd.	37337	2.95
9.	Nuclear Power Corporation Ltd.	37265	2.94
10.	Hindustan Petroleum Corporation Ltd.	33447	2.65
	Total Top Ten (CPSEs)	870431	68.88
	Total Gross Block	1263665	100.00

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

2.6 State-wise distribution of gross block

The state wise distribution of 'gross block' shows a significant change over the years (Table 2.9). A comparison of percentage share of different states over the years shows that 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 states of Maharashtra (17.00 percent), A.P. (7.23 percent), TamilNadu (7.06 percent) and U.P (6.62 percent) that rank 1st, 2nd, 3rd and 4th states in terms of investment. These changes, in good measure,

have occurred mainly on account of higher investments in oil exploration (e.g. Mumbai High), power projects and telecommunications in recent years 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 Uttaranchal 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. The 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 crore)				% share in Total Gross Block			
		1977	1987	1997	2011	1977	1987	1997	2011
1.	Andhra Pradesh	390.70	6761.52	19486.16	91305.35	3.41	9.94	6.85	7.23
2.	Arunachal Pradesh	-	-	1489.20	3804.98	0.00	0.00	0.52	0.30
3.	Assam	312.90	3808.72	12448.89	59863.46	2.73	5.60	4.38	4.74
4.	Bihar	2509.10	6969.2	19982.51	33512.74	21.91	10.24	7.03	2.65
5.	Chhattisgarh	-	-	-	54933.65	-	-	-	4.35
6.	Delhi	400.70	1928.48	15014.81	40117.66	3.50	2.83	5.28	3.17
7.	Goa	3.30	35.27	144.57	1463.52	0.03	0.05	0.05	0.12
8.	Gujarat	523.40	3197.79	20092.87	66511.70	4.57	4.70	7.07	5.26
9.	Haryana	142.70	649.69	4352.25	41455.21	1.25	0.95	1.53	3.28
10.	Himachal Pradesh	11.80	527.43	4720.54	30131.07	0.10	0.78	1.66	2.38
11.	Jammu & Kashmir	5.70	117.84	6413.36	18688.63	0.05	0.17	2.26	1.48
12.	Jharkhand	-	-	-	33578.12	-	-	-	2.66
13.	Karnataka	268.20	1721.52	6439.48	46889.25	2.34	2.53	2.26	3.71
14.	Kerala	274.10	1074.44	3991.76	28455.29	2.39	1.58	1.40	2.26
15.	Madhya Pradesh	1492.70	8571.69	21503.52	50799.51	13.04	12.60	7.56	4.02
16.	Maharashtra	630.30	10905.09	54854.07	214831.50	5.50	16.02	19.29	17.00
17.	Manipur	-	139.68	148.31	406.94	0.00	0.21	0.05	0.03
18.	Meghalaya	-	4.27	53.43	1592.85	0.00	0.01	0.02	0.13
19.	Mizoram	-	-	30.03	412.36	-	-	0.01	0.04
20.	Nagaland	-	78.17	465.36	1165.57	0.00	0.11	0.16	0.09
21.	Orissa	646.50	4637.65	17101.40	41642.08	5.65	6.81	6.01	3.30
22.	Punjab	197.80	641.02	2077.85	13770.54	1.73	0.94	0.73	1.09
23.	Rajasthan	227.10	780.95	6065.94	27318.92	1.98	1.15	2.13	2.16
24.	Sikkim	-	0.55	241.13	5791.78	0.00	0.00	0.08	0.46
25.	Tamilnadu	466.90	3018.82	13539.28	89254.98	4.08	4.44	4.76	7.06
26.	Tripura	-	160.83	830.54	3075.85	0.00	0.24	0.29	0.24
27.	Uttar Pradesh	376.20	3913.96	20767.92	83676.53	3.29	5.75	7.30	6.62
28.	Uttaranchal	-	-	-	22034.96	-	-	-	1.74
29.	West Bengal	768.30	4524.94	18677.33	64958.06	6.71	6.65	6.57	5.14
30.	Andaman & Nicobar Islands	-	9.89	27.10	682.45	0.00	0.01	0.01	0.05
31.	Chandigarh	-	4.06	289.30	278.70	0.00	0.01	0.10	0.02
32.	Pondicherry	-	8.53	30.40	385.11	0.00	0.01	0.01	0.03
33.	Others and unallocated	1802.80	3859.87	13082.21	90875.53	15.74	5.67	4.60	7.19
	Total :	11451.20	68051.87	284361.52	1263664.85	100.00	100.00	100.00	100.00

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

Pricing Policy in CPSEs

Price is one of the most important elements of a commercial enterprise. It determines the company's positioning, profitability and the market share. Pricing strategy, in turn, involves estimation of cost, analysis of competitor's price, determination of demand and finally selection of the appropriate price.

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. A good many Central Public Sector Enterprises (CPSEs) in India are charging prices below average/marginal cost, and the Government has been subsidizing these prices in the interest of consumers. CPSEs, in the (crude) oil sector, in this respect have been an important vehicle of Government of India in keeping the prices low in the domestic market.

In general, the governments fix/administer the price of goods and services produced by public sector enterprises based on the following principles:

- (a) true costs (fixed and variable cost) 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 giving incentive to encourage consumption (e.g. fertilizer consumption) and higher price as disincentive to discourage consumption (e.g. petroleum products),
- (f) different prices/multi-tariffs to include discounts on purchases of larger volumes.

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 based on the cost of production (plus a reasonable return on investment). The Government obtained the cost estimates either from 'the management' of the company or from 'an expert body'. In the case of 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 (fair) prices

of goods and services of these enterprises. Other than the Tariff Commission, there have been other agencies like the office of Chief Adviser (Cost), Department of Economic Affairs, Ministry of Finance and the Central Negotiation Committee, Ministry of Defence, which have been fixing the price of select goods and services.

In the wake of post-1991 economic liberalization, furthermore, 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 competition in the market both from private players (within the country) and from imports. APM has been gradually dismantled in these sectors, and the CPSEs have been given the independence to fix the 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 and grant of subsidies etc.

Since the late 1990s, moreover, 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 price regulatory commissions have been prescribing 'the tariff ceiling', which provides scope for competition. Prices are reviewed, from time to time, and are revised in the light of new technological possibilities and higher / lower input costs. The CPSEs have often played an eminent role in giving competition to the private players, and have brought down prices.

3.1 Market Structures and Pricing Strategy of CPSEs

Prices of 'manufactured products' and 'services' are observed to be determined 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 and the elasticity of demand and brand value in the market. Given the elasticity of demand for the product, a monopolist is able to charge a higher mark-up (10 to 40%) compared to a competitive market scenario; the mark-up being the difference between the average revenue and the marginal cost per unit of output. The prices of 'primary commodities' like agricultural products and minerals, on the other hand, is determined by the market forces of demand and supply.

Table 3.1
Market Structure, CPSEs, and Pricing Policy

S.No.	Market structure	CPSEs	Pricing Policy Strategy
(1)	(2)	(3)	(4)
1.	Monopsony	HAL, Mezagon Dock Ltd., Goa Shipyard Ltd., BHEL, BEML, BEL, Electronics Corporation of India Ltd.	Cost Plus Pricing*
2.	(2.1) Monopoly	Coal India Ltd. (for core sectors), Indian Oil, ONGC, HPCL (for refined oil), Central Warehousing Corporation, NPCI Ltd.	A.P.M. / Notified Price **
	(2.2) Monopolistic Competition	ALIMCO, Hindustan Insecticides Ltd., IDPL (for scheduled drugs)	
3.	Monopolistic Competition	BEML, WAPCOS Ltd., EIL, MECON, HSCL, NBCC, Tyre Corporation of India Ltd.	Negotiated Price
4.	4.1 Oligopoly (in the domestic market)	Air India, BSNL, HLL Life Care, ITDC.	Competition Based Price
	4.2 Monopolistic Competition	National Textile Corporation, HMT, Hindustan Salts Ltd., CCI, MIDHANI	
5.	5.1 Monopoly	FCI, ONGC, Indian Oil, HPCL, CWC, HIL, NSIFDC, IFDC, NMDFC, NSE, FACT	Subsidised Price **
	5.2 Monopolistic Competition	EIL, MECON, HSCL, NBCC	
6.	Perfect Competition (in international market)	Coal India Ltd. (the buyers other than core sectors), Indian Oil (for imported crude oil), SAIL, NMDC, NALCO, Hindustan Copper Ltd.	Demand & Supply

Note: * This is mostly in response to Request for Price (RFP) issued, for defence/power sector procurements, to CPSEs selected on nomination basis.

** Prices in, such cases, are often below the average cost.

Table 3.1 above provides an illustration of CPSEs operating under different market structures:

A combination of factors comes into play in the determination of prices in CPSEs. Exponential growth in certain markets have brought down the costs due to 'economies of scale'. The paragraphs below briefly discuss the pricing system in respect of products in sectors where CPSEs are major players, and which touch the lives of a large majority of people.

3.2 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 five revisions in coal prices since the deregulation in year 2000, the last being on 27th February, 2011. The highlights of pricing policy in coal sector are mentioned below:

- i. Central Government was earlier fixing the price of coal under the provision of the colliery Control Order 1945 & Essential Commodities Act 1955. After complete de control of prices w.e.f. 01.01.2011, Coal companies have been fixing

prices of different grades of coal produced by them and duly notifying the same.

- ii. There is no Price Regulatory Authority for coal sector yet. However, efforts are being made by the Ministry of Coal to set up Coal Regulatory Authority.
- iii. Coal India Limited (CIL) has the mandate to sell around 10% of its production through E-auction only. The floor price for spot (short term supply) and forward e-auction (for supply over a longer period; one year) are fixed at 130% and 160% respectively for the notified price. The last coal price revision was w.e.f. 27.02.2011.
- iv. Floor price for the purpose of spot and forward E- Auction for Grade A and Grade B of coal have been kept at the Notified price. Rest 90% of coal is supplied under the Fuel Supply Agreement (FSA).
- v. For the purpose of FSA the base price of Coal shall be notified by CIL from time to time.
- vi. In the last coal price revision of CIL (w.e.f. 27.02.11) for fixation of notified price the concept of dual pricing has been introduced; (one for the consumers in the regulated sectors and another for the consumers in non-regulated sectors).
- vii. The price for Coal in the non-regulated sector is kept 30% higher than the regulated sector.
- viii. Prices of Grade A and Grade B non-cooking coal are fixed on import parity basis after providing for the discount.

- ix. The Integrated Energy Policy of GoI provides for the sale of high quality of non-cooking coal at 15% discount on the import parity price.
- x. The steel sector is also a deregulated sector but the prices of washed coking coal supplied to integrated steel plants are negotiated on import parity basis.

3.3 Petroleum and Gas

With the changeover from price being determined based on Administered Price Mechanism (APM) 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 (except Diesel, Domestic LPG and PDS Kerosene). About 83% of crude oil processed by the domestic refineries is imported. 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.

3.3.1 Trend of International oil prices

International oil prices have been rising continuously since 2004. The Indian basket of crude oil that averaged about \$ 23/bbl at the time of dismantling of APM in March 2002 went up to \$79.25/bbl during 2007–08. It touched an all-time high of \$142.04/bbl on 3.7.2008; while averaging out at \$83.57 for the full year of 2007–08. The average price of Indian basket of crude oil during the current year of 2011-12 (upto 15.11.2011) stood at \$ 110.41 bbl.

The trend of the international prices of crude oil and petroleum products during the period 2005–06 to September 2011 is given in Fig. 3.2 below:

3.3.2 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 and will be met from the Union Budget under two

schemes i.e. Fiscal Subsidy and Freight Subsidy Scheme. The subsidy admissible for 2004-05, 2005-06 and 2006-07 was to be at one third (1/3rd) level of the rates of subsidy for 2002-03. The Government has extended both the schemes till 31.03.2014.

3.3.2.1 Fiscal subsidy

The details of the fiscal subsidy paid on PDS Kerosene and Domestic LPG under the PDS Kerosene and Domestic LPG Subsidy Scheme, 2002 during the last four years are shown in Table 3.3

3.3.2.2 Freight Subsidy (for far flung areas)

For supplies and sales of products (i.e. PDS Kerosene and Domestic LPG) in the notified far flung areas, freight subsidy is being provided to the Oil Marketing Companies (OMCs). The actual payments released by the Government under this scheme since 2007-08 are shown in Table 3.3.

Table 3.3
PDS Kerosene & Domestic LPG

(₹ crore)

Sl. No.	Year	Fiscal subsidy	Freight Subsidy
1	2007-08	2641	28.27
2	2008-09	2688	22.22
3	2009-10	2770	21.95
4	2010-11	2904	22.33

3.3.3 Under recoveries of OMCs

Despite the increase in the international prices since 2004–05, the selling prices of petrol and diesel were not revised in the domestic market in line with the increase in international prices. The Government directed the oil PSEs to moderate the price increase in petrol and diesel, besides maintaining prices of subsidized petroleum products (i.e. PDS Kerosene & Domestic LPG) 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 when worked out and the actual retail prices resulted in huge under-recoveries, which touched ₹ 78,190 crore in 2010-11 (Table 3.4).

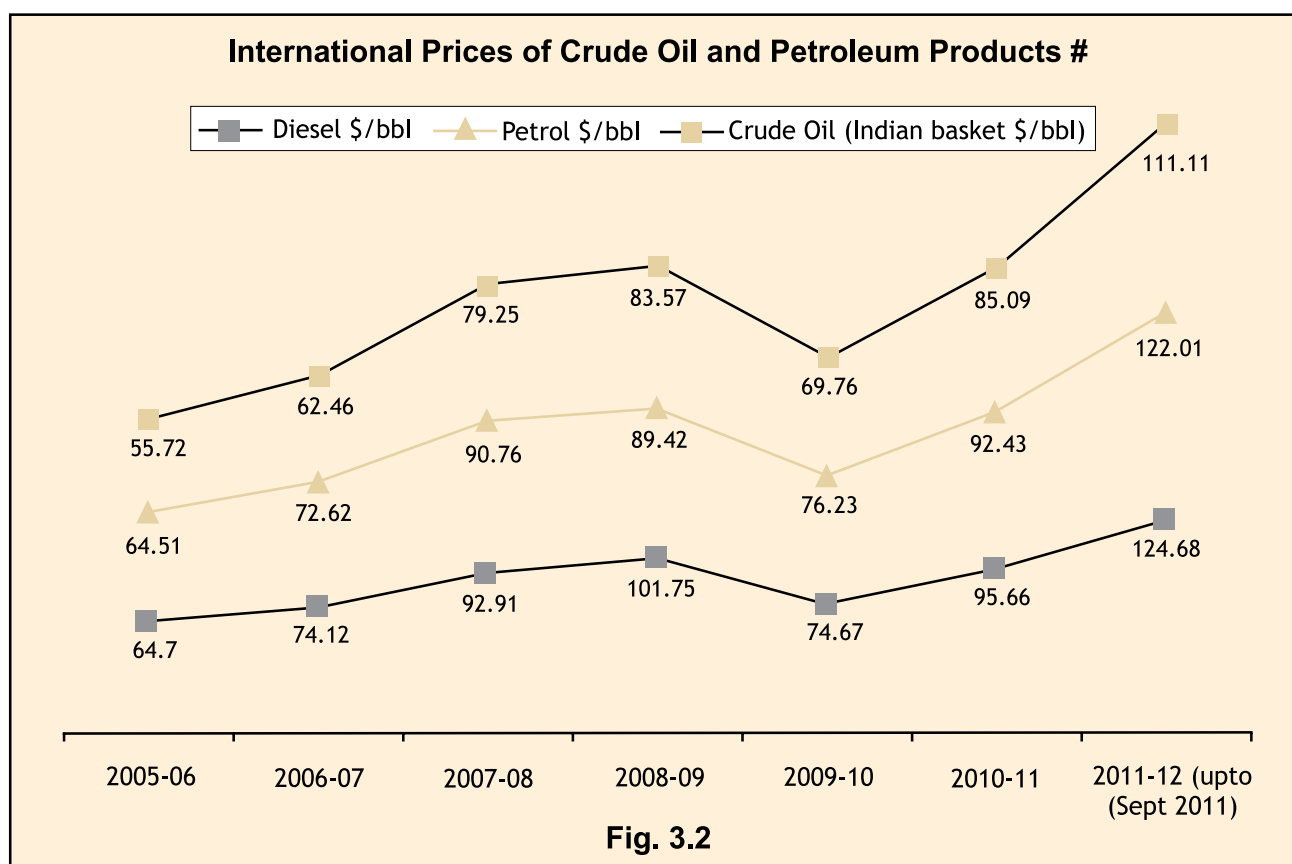
Table 3.4
Under recoveries of OMCs on sensitive Petroleum Products

(₹ crore)

Under- Recovery*	2006-07	2007-08	2008-09	2009-10	2010-11
Petrol	2,027	7,332	5,181	5,151	2,227**
Diesel	18,776	35,166	52,286	9,279	34,706
PDS Kerosene	17,883	19,102	28,225	17,364	19,484
Domestic LPG	10,701	15,523	17,600	14,257	21,772
Total	49,387	77,123	1,03,292	46,051	78,190

* Gross under recoveries without considering oil bonds and upstream assistance.

**Under- recovery on Petrol only up to 25.06.2010.



Source: Ministry of Petroleum & Natural Gas

Composition of Indian Basket of Crude represents average of Oman & Dubai for sour grades and Brent (Dated) for sweet grade. The ratio for 2010-11 is 65.2:34.8

3.3.4 Burden sharing mechanism

As 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, it was, decided that the burden of increase in international price of oil be shared by all the stakeholders, namely, the Government, the upstream oil companies, the oil marketing companies (OMC's) and the consumers through a burden sharing mechanism in the following manner:

- (i) Government through issue of Oil Bonds/Cash subsidy

- (ii) Domestic upstream oil companies through price discounts to OMCs
- (iii) OMCs to bear a portion of under recoveries; and
- (iv) Consumer to bear minimal price increase.

The details of under-recoveries arising from higher prices of international crude oil and the burden sharing between the different stakeholders since 2006-07 are shown in Table 3.5 below.

Table 3.5
Under Recovery and its Burden Sharing

(₹ crore)

Sl. No	Items	2006-07	2007-08	2008-09	2009-10	2010-11
(i)	Oil Bonds/ cash assistance paid by Government to OMC's	24,121	35,290	71,292	26,000	41,000
(ii)	Assistance provided by Upstream oil producing companies (i.e. ONGC, OIL& GAIL)	20,507	25,708	32,000	14,430	30,297
(iii)	Under recoveries borne by OMCs	4,759	16,125	Nil	5,621	6,893
	Total	49,387	77,123	1,03,292	46,051	78,190

The Government shared its burden through issue of Oil Bonds/Cash Assistance to OMCs, which amounted to ₹41,000 in 2010-11. Despite this sharing of the financial burden by the Government (through issue of oil bonds) and the upstream oil companies (viz. ONGC, OIL & GAIL sharing the burden equal to ₹30,237 crore), there still remained a gap (of under recoveries), equal to ₹6,893 crore which had to be absorbed by the public sector OMCs.

3.4 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 (new) 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, furthermore, 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 the development of the 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 by CPSEs, is therefore, determined by the CERC based on the CERC

(Terms and Conditions of Tariff) Regulations, 2004. The tariff for electricity consists of the following elements:

- (a) Capacity charges comprising the following:
 - (i) Return on Equity – presently 14% post-tax return is allowed,
 - (ii) Interest on loans – interest including foreign exchange variation on interest and loan repayment is allowed,
 - (iii) Depreciation – 90% recovery of cost spread over asset life,
 - (iv) Advance against depreciation – allowed for the purpose of loan repayment,
 - (v) 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 @ ₹0.25 /unit is allowed.

- (b) Energy charges are levied on scheduled energy based on actual landed cost of fuel with normative operating parameters.
- (c) Payment of taxes, duties, and other levies,
 - 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, e t c) 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.

3.5 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 through the automatic route,
- (e) Technology imports were made easier, and
- (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.

3.6 Fertilizers

Urea is the main nitrogenous fertilizer constituting about 60% of the total fertilizer consumption in the country. The market share of CPSEs in the area of fertilizer sector is a little more than 20%. Fertilizer 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.

3.6.1 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.

3.6.2 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 was 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. Though the tenure of NPS stage III was up to 31.3.2010, the same is extended beyond March, 2010 as no policy is finalized.

The important features of the Stage-III Policy are:

- (a) Resumption of production by units under shutdown,
- (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. RCF Trombay resumed urea operations from May, 2009 on special dispensation of weighted average fixed cost of gas based units and pre set energy norm as was applicable to the unit before its closure of urea operations. Similarly, other closed units are also being allowed to resume urea production on existing feedstock and convert to gas within stipulated time limit.

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, the Government will not subsidize the high cost urea produced by the non-gas based urea units. However, in view of absence of any pipe-line connectivity in the peninsular region, the units are allowed to continue production provisionally.

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 in accordance with the scheme notified for this purpose. 85% of capital cost for conversion would be considered for special fixed cost to be paid for five years after conversion to gas. Units of National Fertilizers Ltd., at Panipat, Nangal and Bathinda and Gujrat Narmada Valley Fertilizers and Chemicals Ltd., are under conversion.

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. However, except revamp projects of existing units new investment has not materialized under this policy.

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 prices 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.

Policy for existing urea units and new investment policy are in advanced stage and likely to be finalized in near future.

3.7 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 ₹ 2.40 per minute in April 2005 for landline phones in the case of MTNL came down to ₹ 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 ₹ 2.88 per minute). Around June 2010 due to Intense competition, it has compelled telecom operators to offer local and STD calls rates at rock bottom prices, to as low as 1 paisa per second. Now, with this, ISD calls have come down to the ₹ 1 per minute.

3.8 Civil Aviation

The ‘fares’ offered by Air India are competitive and market driven and are based on market considerations, such as, fares offered by competitors, seasonality, extent of competition and product features like frequency, timings, direct/ indirect operations etc.

Apart from the normal sector fare, Air India offers multiple levels of lower fares on the domestic network. The availability of a particular fare on the sector may vary from flight to flight and sector to sector as it is dependent on the demand and supply and consequent availability of seat in a particular fare level at the timing of booking.

The fares are reviewed/ revised/rationalized from time to time, depending on the market scenario/seasonality/ demand etc. Fares of the competitors are tracked on regular basis and are compared with the prevalent Air India fares to ensure they are competitively placed.

Fare revision/computation is not governed by any rigid stipulation. It may not be necessary to simultaneously revise fares in all classes on a given sector nor is it necessary to revise the fares of all sectors at the same time. Dependent on the prevailing market conditions, there can be both upward/ downward movement of the fare or the fare may remain unaltered on the particular sector at the time of any fare revision.

The Airport Economic Regulatory Authority of India (AERA) has been ‘furthermore’ established for economic regulations of major airports. Various Directions/ notifications issued by AERA are available at their office and the same are also available at AERA website i.e. <http://aera.gov.in>. AAI is in service sector, price of various services offered by it to aircraft operators i.e. Airport Charges are decided by AERA in respect of its major airports. The Ministry of Civil Aviation is the regulatory authority for non-major airports. The guidelines issued by AERA mandate that price of various services are to be decided on cost plus basis.

3.9 Pharmaceuticals

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

3.9.1 Prices of Scheduled Pharmaceutical Products

The Maximum Retail Prices (MRP) of Scheduled Formulations are fixed and revised by the National Pharmaceutical Pricing Authority (NPPA), the price regulatory authority of Government of India.

3.9.2 Prices of Non-scheduled Pharmaceutical Products

The prices of non-scheduled formulations are fixed by the Board of Directors of CPSEs based on DPCO guidelines, their cost and prevailing market trend. In case

of pharmaceuticals CPSEs the pricing policy for various market segment, product wise are as under:

Prices of 102 products reserved under Preferential Purchase Policy (PPP) of Government of India (GOI) for pharma CPSEs:

3.9.2.1-A Pricing of 102 products reserved under PPP of GOI for pharma CPSEs for supply to Central Government & State Government institutions funded by GOI:

Preferential Purchase Policy for 102 drugs manufactured by 5 CPSEs was introduced by Deptt. of Chemicals & Petrochemicals (Deptt. of Pharmaceuticals) valid for 5 years i.e. upto 6 August, 2011. The drugs were categorized into Scheduled & Non Scheduled drugs.

A1: For scheduled drugs discount varying upto 35% were offered on the ceiling price fixed by NPPA.

A2: For Non scheduled drugs discount varying upto 35% was fixed on retail price (Notional ceiling price was worked by NPPA for the purpose of PPP policy).

3.9.2.1-B Price of 102 products reserved under PPP policy for CPSEs for supply to institutions not funded by GoI:

The benefits of reduced prices fixed under PPP policy as mentioned above was also extended to such supplies.

3.9.2.2 Prices of products other than 102 Products:

These prices for non PPP products are worked on the basis of (a) cost parameter of respective CPSEs. (b) Competitors pricing pattern. (c) Ceiling prices fixed by NPPA.

3.9.2.2-A **Price of products being sold in open market:**

The prices for open market sale are fixed based on (a) The prevailing price of the competitor brand, (b) Cost parameter of the respective CPSE. (c) Ceiling prices fixed by NPPA, (d) Guidelines given by DPCO in case of Non scheduled drugs.

3.9.2.2-B **Prices of products under Janaushadhi Programme :**

The prices of products sold by CPSEs under the Janaushadhi Programme of Department Of Pharmaceuticals, GOI are fixed by BPPI (Bureau of Pharma Public Sector Companies of India based on (a) 50% of the average MRP of the reputed manufacturer and, (b) cost parameters of CPSEs.

3.10 Agriculture Products

3.10.1 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 (CACP) 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 food grains 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 food grains (wheat and rice) for Below the Poverty Level (BPL) population, Above the Poverty Level (APL) population and for Antyodaya Anna Yojana (AAY) since July 1, 2002.

3.10.2 Inputs: HYV Seeds

National Seeds Corporation Ltd. (NSC) and State Farms Corporation of India Ltd. (SFCI) are the two CPSEs engaged in production of quality high- yield variety (HYV) seeds. The Government has not issued any direction to

these CPSEs on fixation of prices of seeds, which are generally determined by market forces. NSC and SFCI 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.

Seed pricing comprise 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,
- (c) 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

Productivity in Public Enterprises

The Central Public Sector Enterprises (CPSEs) are technologically complex identities involving large scale production and economies of scale. CPSEs in the industrial sector (manufacturing, mining and electricity), in particular, are capital intensive and are characterized by higher productivity per unit of input/hour. Productivity is, however, influenced by both endogenous and exogenous factors. While endogenous factors constitute of higher technology, better quality of labour, scale of output and good management practice, the exogenous factors 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, highlights if 'productivity' is high or low and whether there is improvement/ deterioration in condition during the period under consideration. Some of the important parameters used for measuring 'productivity' are capacity utilization, inventory in relation to sales and energy use in the enterprise. The paragraphs below discuss each of these measurements of productivity in relation to CPSEs.

4.1 Capacity Utilization

Capacity utilization in this report has been measured based on the installed/rated capacity. Wherever installed/rated capacity is not available for various reasons, the assessment of the management vis-à-vis capacity utilization in the enterprises has been accepted. In the case of multiple-

product units, moreover, capacity utilizations have been worked out with reference to major products.

Table 4.1 shows the capacity utilization in CPSEs during the last three years. As many as 48 CPSEs out of 67 units recorded capacity utilization of 75% and more in 2010-11 as compared to 50 out of 75 units in 2009-10.

Table 4.1
Capacity utilization in CPSEs

Sl. No.		2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)
1	Units which have recorded 75% or more capacity utilization	48(72)	50(67)	41(55)
2	Units which have recorded 50% or more but less than 75%	9(13)	9(12)	17(23)
3	Units which have recorded less than 50% capacity utilization	10(15)	16(21)	16(22)
	Total	67(100)	75(100)	74(100)

(Figures in brackets show percentages)

The detailed enterprises-wise statement, indicating the unit-wise capacity utilization for major products during the last three years is given in the section on Statements & Appendices at the end of this Volume (Statement No. 18). The paragraphs below discuss enterprise-wise rated capacity and extent of utilization, under the various cognate groups.

4.1.1 Iron And Steel

The capacity utilization in the cognate group of Iron & Steel in respect of five CPSEs, during the last 3 years, is shown below:-

Table 4.1.1

Sl. No.	CPSE	Product	Installed Capacity	Capacity Utilization (%)		
			(2010-11)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Mishra Dhatu Nigam Ltd.	Super Alloys	2729 (MT)	110	89	70
2	Maharashtra Electros melt Limited (Now merged with SAIL)	High Carbon Ferro Manganese	50000 MT	125.51	131.19	117.92
		Silico Manganese	32765 MT	113.98	140.33	130.53
		Medium Carbon Ferro Manganese	1800 MT	89.33	89.17	97.94
3	Steel Authority of India Limited	Saleable Steel	11.07 ML.t	116	114	113
4	Ferro Scrap Nigam Ltd.	Recovery of scrap	11.50 Lakh MT	109.40	100.43	93.42
5.	Rashtriya Ispat Nigam Ltd.	Hot metal	3.4 ML.t	113	115	104
		Liq. steel	3.0 ML.t	114	113	105
		Bars	0.71 ML.t	122	123	116
		Wire rods	0.85 ML.t	119	119	114
		Saleable steel	2.66 ML.t	116	119	102

(MT – Metric Tonne; TPA – Tonne per annum; ML.t – Million Tonne)

- The Mishra Dhatu Nigam Ltd. produced 3014 MT of alloys during 2010-11 as against 2429 MT produced in the previous year.
- Maharashtra Electros melt Limited produced 112296 MT of Ferro Alloys during the year 2010-11 as compared to 114816 MT during the previous year.
- Steel Authority of India Limited produced 12.89 million tonne of saleable steel during the year 2010-11 as compared to 12.63 million tonne during the previous year.
- Ferro Scrap Nigam Limited made 12.80 lakh MT of Recovery & processing of scrap from slag & handling of slag during the year 2010-11 as compared to 11.75 lakh MT in the previous year.
- The Rashtriya Ispat Nigam Ltd. produced 3.83 million tonne of hot metal, 3.42 million tonne of liquid steel, 0.87 million tonne of bars, 1.02 million tonne of wire rods and 3.08 million tonne of saleable steel during 2010-11 as against a production of 3.90 million tonne of hot metal, 3.40 million tonne of liquid steel, 0.87 million tonne of bars, 1.02 million tonne of wire rods and 3.17 million tonne of saleable steel during the previous year.

4.1.2 Minerals and Metals

The capacity utilization in respect of six CPSEs in the cognate group of Minerals and Metals during the last 3 years, is shown below:-

Table 4.1.2

Sl.No.	CPSE	Product	Installed Capacity	Capacity Utilisation (%)		
			(2010-11)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	FCI Aravali Gypsum & Minerals (India) Ltd.	Gypsum	905000 MT	98	80	101
2	Hindustan Copper Ltd.	Wire Rod	60,000 MT	38	70	86
		Cathodes	49,500 MT	48	35	61
3	Indian Rare Earths Ltd.	Ilmenite	5,10,000 MT	64	70	70
		Rutile	22300 MT	59	59	62
		Zircon	32500 MT	52	57	60
4	KIOCL Limited	Iron Ore Pellets	3.5 Million Tonne	61	36	38
		Pig Iron	0.216 Million Tonne	-	29	55
5	MOIL Limited [formerly Manganese Ore (India) Ltd.]	Elect. Mangan. Dioxide	1000 Tonnes	80.5	115	124
		Ferro Mangan.	10000 Tonnes	90.81	95.55	101.20
6	National Aluminium Company Ltd.	Bauxite	48 lakh MT	100.50	101.64	97.92
		Alumina	15.75 lakh MT	98.79	101.05	100.10
		Aluminium	4.60 lakh MT	96.43	99.88	103.4

(MT – Metric Tonne)

- FCI Aravali Gypsum and Minerals India Limited excavated 883441 MT of Gypsum during the year 2010-11 as compared to 723354 MT in the previous year.
- The Hindustan Copper Ltd. produced 24001 MT of cathode and 22993 MT of wire rods during 2010-11 as compared to 17516 MT of cathode and 41999 MT of wire rods during the previous year respectively.
- The Indian Rare Earths Ltd. produced 323681 MT ilmenite, 13228 MT rutile and 17042 MT zircon during the year 2010-11. The corresponding figures for the previous year were 355105, 13138 and 18553 MT respectively.
- KIOCL Limited produced 2.124 million tonne of iron ore pellets during 2010-11 as compared to 1.273 million tonne of iron ore pellets in 2009-10. Pig Iron plant was closed in the third quarter of 2008-09 and again from 5.8.2009 onwards and not resumed operation during 2010-11.
- MOIL Limited produced 805 tonnes of Electrolytic Manganese Dioxide and 9081 tonnes of Ferro Manganese during the year 2010-11 as against 1150 tonnes and 9555 tonnes during the previous year.
- National Aluminium Company Limited produced 48.24 lakh MT of Bauxite, 15.56 lakh MT of Alumina and 4.44 lakh MT of Aluminium during the year 2010-11. The corresponding figures for the previous year were 48.79 lakh, 15.92 lakh and 4.32 lakh MT respectively.

4.1.3 Coal And Lignite

The capacity utilization in the cognate group of *Coal & Lignite* in respect of eight CPSEs, during the last 3 years, is shown below:-

Table 4.1.3

Sl.No.	Name of Enterprises	Product	Installed Capacity	Capacity Utilisation (%)		
			(2010-11)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Central Coalfields Ltd.	OC Coal	91.69 M. Cum.	96.0	92.8	87.4
2	Eastern Coalfields Ltd.	Raw Coal	28.578 MT	107.66	105.18	95.78
3	Mahanadi Coalfields Ltd.	Coal	114.592 M.Te	87.5	90.6	96.5
4	Neyveli Lignite Corpn. Ltd.	Lignite	306 LT	75.62	73.01	88.35
5	Northern Coalfields Ltd.	Coal	60.67 MT	75.21	77.30	81.02
6	Western Coalfields Ltd.	Coal	146.403 MT	97.13	111.43	111.68
7	Coal India Limited	Coal	460.44MT	93.68	95.92	97.96
8	Bharat Coking Coal Ltd.	Coal	32.88 MT	88.22	88.58	83.09
		Washed Coal	11.63 MT	29.76	23.58	31.93

- Central Coalfields Limited produced 91.979 M.cum of OC Coal during the year 2010-11 as compared to 85.100 M.cum during the previous year.
- Eastern Coalfields Limited produced 30.80 MT of Raw Coal during the year 2010-11 as compared to 30.06 MT in the previous year.
- Mahanadi Coalfields Limited produced 100.28 MT of Coal during the year 2010-11 as compared 104.08 MT during the previous year.
- The Neyveli Lignite Corporation Ltd. produced 231.44 LT of lignite during 2010-11 as compared to 223.383 LT during the previous year.
- Northern Coalfields Limited produced 66.25 MT of Coal during the year 2009-10 as compared to 67.67 MT in the previous year.
- Western Coalfields Limited produced 43.654 MT of Coal during the year 2010-11 as compared 45.735 MT during the previous year.
- The Coal India Limited produced 431.32 MT of Coal in 2010-11 as compared to 431.27 MT in 2009-10.
- Bharat Coking Coal Limited produced 29.00 MT of Coal and 1549 thousand tonne of washed coal during the year 2010-11 as compared to 27.51 MT and 1326 thousand tone respectively in the previous year.

4.1.4 Electricity

The capacity utilization in the cognate group of *Electricity* in respect of seven CPSEs, during the last 3 years, is shown below:-

Table 4.1.4

Sl.No.	CPSE	Product	Installed Capacity	Capacity Utilisation (%)		
			(2010-11)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	NTPC Limited	Electricity	30830 MU	88.29	90.81	91.14
2	NHDC Limited	Electrical Energy	1520 MW	92.40	94.66	98.12
3	NHPC Limited	Electricity	3749.2 MW	85.3	84.1	93.6
4	Neyveli Lignite Corporation Ltd.	Power Gross (MU)	2490 MW	80.75	80.94	72.28
5	North Eastern Electric Power Corporation Ltd.	Electricity	1130 MW	91.97	82.15	97.61
6	Power Grid Corporation of India	Transmis-sion	75,290 MVA	99.80	99.77	99.55
7	THDC India Ltd.	Electricity	1000 MW	74.41	83.97	100.00

(MU – Million Units; MW – Million Watts; MVA – Million Volts per annum)

- NTPC Limited generated 220537 Million Units of Electricity during 2010-11 as against 218840 Million Units during the previous year.
- NHDC Limited generated 3196.65 Million Units of Electrical Energy during 2010-11 as against 3071.22 Million Units during the previous year.
- NHPC Limited generated 18606 Million Units of Electricity during 2010-11 as against 16960 Million Units during the previous year.
- Neyveli Lignite Corporation produced 17881 Million Units of power during 2010-11 as compared to 17656 Million Units during the previous year.
- North Eastern Electric Power Corporation Ltd. generated 5093 Million Units of Electricity during 2010-11 as compared to 4549 Million Units in the previous year.
- THDC Limited generated 3116 Million Units of Energy during 2010-11 as against 2117 Million Units during the previous year.

4.1.5 Petroleum

The capacity utilization in the cognate group of *Petroleum* in respect of five CPSEs, during the last 3 years, is shown below:-

Table 4.1.5

SINo	CPSE	Product	Installed Capacity	Capacity Utilisation (%)		
			(2010-11)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Bharat Petroleum Corporation Ltd.	Crude	21.5 MMT	101.4	104.6	102.3
2	Chennai Petroleum Corporation Ltd.	Crude	11.5 MMT	93.5	95.8	96.4
3	Indian Oil Corporation Ltd.	Crude Oil	49700 TMT	102.0	102.0	103.3
4	GAIL (India) Limited	LPG	1112376 MT	96.01	98.89	97.81
		Pentane	82450 MT	41.87	71.01	70.82
		Naptha/SBPS	110747 MT	100.36	92.54	91.65
		Polymers	410000 MT	102.53	101.74	102.47
5	Mangalore Refinery Petrochemicals Limited	Crude	11820000 MT	106.93	105.73	129.89

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

- Bharat Petroleum Corporation Ltd. produced 21.8 MMT of Crude Processed during the year 2010-11 as compared to 20.4 MMT during the previous year.
- Chennai Petroleum Corporation Ltd. achieved 11.5 MMTPA of Crude thruput during 2010-11 as against 10.05 MMTPA in the previous year.
- The combined throughput by the seven refineries of the Indian Oil Corporation Ltd. during the year 2010-11 was 52963.9 TMT as against the previous year's throughput of 50695.6 TMT.
- The GAIL (India) Ltd. produced 10.68 lakh MT of LPG during 2010-11 as against a production of 11.00 lakh MT during the previous year. It also produced 420358 MT polymers as compared to 417147 MT in previous year.
- MRPL has processed 126.4 lakh MT of crude in 2010-11 as compared to 125.0 lakh MT in 2009-10.

4.1.6 Fertilizers

The capacity utilization in the cognate group of *Fertilizers* in respect of three CPSEs, during the last 3 years, is shown below:-

Table 4.1.6

Sl.No.	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilisation (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Brahmaputra Valley Fertilizer Corporation Ltd.	Urea-Namrup II	240000 MT	35.89	32.98	25.77
		Urea-Namrup III	270000 MT	73.71	85.34	47.66
2	Madras Fertilizers Ltd.	Ammonia	346500 MT	80.9	74.5	67.0
		Urea	486750 MT	98.4	89.6	83.4
		NPK	840000 MT	-	-	-
		Bio-fertilizer	250 MT	174.6	174.7	183.3
3	Rashtriya Chemicals and Fertilizers Ltd.	Thal – Urea	1706800 MT	104	105	112
		Thal – Ammonia	990000 MT	115	114	111
4		Trombay – Urea	330000 MT	103	93	-
		Trombay – Suphala	300000 MT	149	163	157
		Trombay – Ammonia-V	297000 MT	108	111	94

(MT – Metric Tonne)

- The Brahmaputra Valley Fertilizer Corporation Ltd. produced 2.85 lakh MT of urea during 2010-11 as against the production of 3.10 lakh MT during the previous year.
- The Madras Fertilizers Ltd. produced 2.80 lakh MT ammonia, 4.79 lakh MT urea during 2010-11. The corresponding production figures for the previous year were 2.58 lakh MT ammonia, 4.36 lakh MT urea.
- The Rashtriya Chemicals and Fertilizers Ltd. produced 17.83 lakh MT Urea, 11.35 lakh MT Ammonia and 4.47 lakh tonne Suphala during the year 2009-10 as against 17.90 lakh MT Urea, 11.28 lakh MT Ammonia and 4.90 lakh tonne Suphala during the previous year.

4.1.7 Chemicals and Pharmaceuticals

The capacity utilization in the cognate group of *Chemicals and Pharmaceuticals* in respect of six CPSEs, during the last 3 years, is shown below:-

Table 4.1.7

Sl.No.	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilisation (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Bengal Chemicals & Pharmaceuticals Ltd.	Tablet	10 CR	85	182	126
		Capsule	500 lakh	87.2	80.4	48.0
		Ointment	60 MT	101	116.0	144.0
		Pheneol	3000 KL	90.8	56.0	92.2
		Alum	3000 MT	156.4	129.0	84.0
		Disinfectant	1200 KL	53	52	40
2	Hindustan Fluorocarbons Ltd.	CFM-22	1265 MT	100	74	70
		Monomer	575 MT	67	46	8
3	Hindustan Insecticides Ltd.	DDT Tech.	6344 MT	50	57	52
		DDT Form.	12688 MT	46	53	54
		Endosulfan Technical	1600 MT	108	94	79
		Endosulfan Formulation	1910 MT	75	46	60
4	Hindustan Organic Chemicals Ltd.	Acetone	24640 MT	109	94	108
		Phenol	40000 MT	107	92	107
		Formaldehyde	33000 MT	97	99	95
		Acids	63000 MT	38	42	43
5	Karnataka Antibiotics & Pharmaceuticals Ltd.	Dry Powder Vials	617.50 nos.	100	74	87
		Liquid Parenterals	396 nos.	145	123	85
		Tablets	3600 nos.	178	192	141
		Capsules	450 nos.	205	177	129
6	Projects & Development India Ltd.	Catalyst	1260 MT	35	6	15

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

- Bengal Chemicals & Pharmaceuticals Ltd. produced 8.5 crore tablets, 436 lakh capsules, 60.7 MT of Ointment, 2724 Kilo litres of Pheneol, 4691.5 MT of Alum and 636 Kilo litres of Disinfectant during 2010-11. The comparative figures for the previous year were 27.27 crore, 402 lakh, 69.5 MT, 1680.6 Kilo litres, 3858 MT and 620.7 Kilo litres respectively.
- Hindustan Fluorocarbons Ltd. produced 1265 MT CFM-22 and 389 MT Monomer during 2010-11 as against the production of 940.5 MT and 265 MT respectively during the previous year.
- Hindustan Insecticides Ltd. produced 3192 MT of DDT Technical, 5875 MT of DDT Formulation, 1729 MT of Endosulfan Technical and 1430 Kilo Litres of Endosulfan Formulation during the year 2010-11. The comparative figures during the previous year were 3610 MT, 6706 MT, 1506 MT and 872 Kilo Litres respectively.
- Hindustan Organic Chemicals Ltd. produced 23942 MT acids, 32038 MT Formaldehyde, 42933 MT Phenol and 26959 MT Acetone during the year 2010-11 as compared to 26151 MT acids, 32784 MT formaldehyde, 36751 MT Phenol and 23084 MT acetone during the previous year.
- Karnataka Antibiotics & Pharmaceuticals Ltd. produced 615.35 lakh dry power vials, 573.86 lakh liquid parenterals, 6405.00 lakh tablets and 923.79 lakh capsules during 2010-11. The comparative figures for the previous year were 457.20 lakh, 485.33 lakh, 4801.52 lakh and 794.59 lakh respectively.
- Projects & Development India Ltd. produced 436 MT Catalyst during the year 2010-11 compared to 73 MT during the previous year. The production in 2010-11 was higher compared to earlier years, as there was higher order booking during 2010-11.

4.1.8 Heavy Engineering

The capacity utilization in the cognate group of Heavy Engineering in respect of six CPSEs, during the last 3 years, is shown below:-

Table 4.1.8

Sl. No.	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilisation (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Bharat Heavy Electricals Limited	Turbine	10000 MW		106	76
		Generator	10000 MW		98	72
		Boilers, Valves & Boilers Aux.	417014 MT		190	153
		Power Transformers	20500 MVA		94	106
		Electrical Machines	1340 Nos.		112	101
2	Bharat Wagon & Engg. Co. Ltd.	Wagons	880 VUs	22	29	20
3	Burn Standard Co. Ltd.	Wagon	2100 Nos.	50	29	38
		Bogie	2400 Nos.	46	42	32
		Coupler	2400 Nos.	4.5	8	18
		Steel Castings	6000 MT	11	20	29
4	Heavy Engineering Corporation Ltd.	5 cum Rope shovel	6120 tons	26.03	60.92	48.79
		24/96 Dragline	2000 tons	82.50	0.00	0.00
		EOT Cranes	3400 tons	99.97	95.04	60.50
		Machine tools & Accessories	3200 tons	12.98	11.66	10.41
		Steel & Mining spares	1360	75.81	101.71	94.56
		Forging & Forged Rolls	9600 tons	23.03	23.82	30.76
		Steel castings	29088 tons	15.05	15.04	13.17
5	Triveni Structurals Ltd.	Building structures	13600 MT	—	0.8	2.0
		Miscellaneous	400 MT	16	11	7

(MT – Metric Tonne; MW – Million Watt; MVA - Million Volts per annum; VUs -)

- Bharat Heavy Electricals Ltd. produced 10595 MW of turbine, 9760 MW of generator and 7.9 Lakh MT of boilers, valves & boiler auxiliaries during 2009-10 as compared to 7572 MW turbine, 7239 MW generator and 6.4 Lakh MT boilers, valves & boiler auxiliaries during the previous year.
- Bharat Wagon & Engineering Company Ltd. produced 197 VUs of Railway Wagons during the year 2010-11 as compared to 254 VUs during the previous year.
- Burn Standard Co. Ltd. produced 1051 Wagons; 1095 Bogies; 106 Couplers and 653 MT Steel Castings during the year 2010-11. The corresponding figures during the previous year were 610 VUs, 997 nos., 176 nos. and 1175 MT respectively.
- Heavy Engineering Corporation Ltd. produced 1592.90 tons of 5 Cum Rope Shovel, 1650 tons of 24/96 Dragline, 3398.90 tons of EOT Cranes, 415.20 tons of Machine Tools & Accessories, 1031 tons of Steel & Mining Spares, 2211 tons of Forging & Forged Rolls and 4379 tons of Steel Castings during the year 2010-11. The corresponding figures during the previous year were 3728.20 tons 5 Cum Rope Shovel, 3231.40 tons EOT Cranes, 373 tons Machine Tools & Accessories, 1383.20 tons Steel & Mining Spares, 2287 tons Forging & Forged Rolls and 4374 tons Steel Castings.

4.1.9 Medium and Light Engineering

The capacity utilization in the cognate group of Medium and Light Engineering in respect of eight CPSEs, during the last 3 years, is shown below:-

Table 4.1.9

Sl.No	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilisation (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andrew Yule & Co. Ltd.	Black Tea	112 lakh Kgs.	96.85	94.22	81.58
		Transformers	500000 KVA	112.79	64.40	121.15
		Regulators/ Rectifiers	235000 KVA	31.72	32.72	26.12
2	Balmer Lawrie & Co. Ltd.	Barrels & Drums	42 nos./ lakhs	86	100	78
		Greases & Lubricants	0.580 MT/ lakhs	78	74	48
		Leather Chemicals	3498 MT	200	153	156
3	Biecco Lawrie Limited	Control & Switchgear	1375 nos.	89	85	102
		Lube oil blending	10000 KL	20	17	17
4	Bharat Pumps and Compressors Ltd.	Pumps	283 nos.	45	46	58
		Compressors	23 nos.	109	192	91
		Gas Cylinders	48000 nos.	75	46	27
5	Central Electronics Limited	Solar PV Modules	10000 KW	32	20	29
6	Electronics Corporation of India Ltd.	Electronic Fuzes	4 lakh nos.	0	87	13
		Energy Meters	10 lakh nos.	33	30	22
		Hybrid Micro Circuits	10 lakh nos.	15	19	19
		Electronic Voting Machines	2 lakh nos.	6	25	39
		M7 Radios (New product)	150 systems	109	33	0
7	Rajasthan Electronics & Instruments Ltd.	Electronic Milk Analyser	4500 nos.	140.58	189.29	173.82
		SPV Modules	2000 Kwp	142.75	111.15	68.45
		Wind Power	20 lakh Kwh	58.56	77.33	75.05
8	Richardson and Cruddas (1972) Ltd.	Fabrications	28300 MT	70	71	58
		Plant equip.	2960 MT	164	145	188
		Hand Pump	20000 nos.	1	2	3

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

- The Tea Division of Andrew Yule and Co. Ltd. produced 108.46 lakh Kg of tea during the year with a capacity utilization of 96.85% as against a production and capacity utilization of 105.52 lakh Kg and 94.22% during the previous year. It produced 5,63,950 KVA transformers and 76,193 KVA regulators in 2010-11 as compared to 3,22,000 KVA transformers and 70,300 KVA regulators in 2009-10.
- Balmer Lawrie & Co. Ltd. produced 36.09 nos./ lakhs of barrels & drums; 0.45 MT/lakhs of greases & lubricants and 6994 MT of leather chemicals in 2010-11. The corresponding production in the previous year was 39.2 nos./lakhs, 0.43 MT/lakhs and 5964 MT respectively.
- Biecco Lawrie & Co. Limited produced 1223 switchgear panels and 1979 KL of lube oil in 2010-11 as compared to 1167 nos. and 1687 KL in the previous year.
- Bharat Pumps and Compressors Ltd. produced 74 pumps and 18 compressors as against its installed capacity of 283 and 23 respectively in 2010-11.
- The corresponding production in the previous year was 84 and 25. It produced 34240 gas cylinders in 2010-11 as against 23464 in 2009-10.
- Central Electronics Ltd. produced 3196 KW Solar PV modules during the year 2010-11 as compared to 2002 KW during the previous year.
- Electronics Corporation of India Ltd. produced 972 electronic fuzes; 3.25 lakh energy meters; 1.52 lakh hybrid micro circuits and 12,250 electronic voting machines in 2010-11. The corresponding production in the previous year was 3.49 lakh, 3 lakh, 1.88 lakh and 50,000 respectively.
- Rajasthan Electronics & Instruments Ltd. produced 6326 Electronic Milk Analysers; 2855 Kwp Solar PV modules and 11.71 lakh Kwh Wind Power during the year 2010-11 as compared to 8518 electronic milk analysers; 2223 Kwp SPV and 15.47 lakh Kwh Wind Power during the previous year.
- Richardson and Cruddas has produced 19708 MT fabrications during 2010-11 against 20039 MT in the previous year.

4.1.10 Transportation Equipment

The capacity utilization in the cognate group of Transportation Equipment in respect of seven CPSEs, during the last 3 years, is shown below:-

Table 4.1.10

Sl.No	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilisation (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	BEML Ltd.	Mining & Construction, Railway & Metro and Defence products	71.82 lakh SMH	114	114	114
2	Cochin Shipyard Ltd.	Ship Building	1.50 lakh DWT	94	81	82
3	Garden Reach Shipbuilders & Engineers Ltd.	Ship Building	Eqvt. MT	168	204	166
		General Engg.	MT	126	130	125
		Pump	Nos.	7	3	2
		Diesel Engine	Nos.	39	36	31
4	Goa Shipyard Ltd.	Shipbuilding	5.85 SSU	109.57	102.24	100.77
5	Hindustan Aeronautics Ltd.	Standard Man Hours	Lakh SMH	112	106	104
6	Hindustan Shipyard Ltd.	Shipbuilding	75250 DWT	82	90	85
7	Mazagon Dock Ltd.	Ship	0.97 EFU	108.81	96.38	96.42

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

- BEML Limited made combined achievement in Mining & Construction, Railway & Metro and Defence products of 81.54 lakh hours during 2010 as compared to 86.69 lakh hours in the previous year.
- Cochin Shipyard Ltd. built 140251 DWT of ships during the year 2010-11 as compared to 121035 DWT in the previous year.
- Garden Reach Shipbuilders & Engineers Ltd. Produced 5419 MT of Ship building (fabrication) and 3148 MT of general engineering (fabrication) during the year 2010-11 as compared to 6594 MT and 3259 MT respectively in the previous year. It has produced 49 pumps and 14 diesel engines during the year as compared to 19 pumps and 13 diesel engines in the previous year.
- The Goa Shipyard Limited produced 6.41 standard ship units in 2010-11 as compared to 5.98 Standard ship units in the previous year.
- Since the product-wise information in Hindustan Aeronautics Limited is of classified nature, the annual production is represented in terms of Standard Man Hours (SMH) in lakhs. The production during 2010-11 was 323.28 lakhs as compared to 310.32 lakhs in the previous year.
- Hindustan Shipyard Ltd. built 61,853 DWT of ships during the year 2010-11 as compared to 67,572 DWT in the previous year.

4.1.11 Consumer Goods

The capacity utilization in the cognate group of Consumer Goods in respect of eight CPSEs, during the last 3 years, is shown below:-

Table 4.1.11

SINo	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilization (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Artificial Limbs Manufacturing Corporation of India	Mech. Hand	6300 nos.	69.49	58.43	95.76
		Axilla Crutch	62400 nos.	42.95	98.27	97.04
		Wheel Chair	30000 nos.	73.07	87.09	88.18
		Tricycle	78000 nos.	46.85	77.24	88.10
		Hearing Aid	25200 nos.	104.38	92.80	91.25
2	Cement Corporation of India Ltd.	Cement	14.46 lakh M.T.	62.27	66.96	68.50
3	HLL Lifecare Ltd. (formerly, Hindustan Latex Ltd.)	Condoms	1316 M.Pcs	101	100	97
		Blood Bags	9.63 M.Pcs	56	85	71
		Copper T	5.50 M.Pcs	82	74	69
4	Hindustan Newsprint Ltd.	Newsprint	100000 MT	105	101	108
5	Hindustan Paper Corporation Ltd.	Newsprint	2 lakh MT	77.39	83.32	87.51
6	Hindustan Salts Ltd.	Liquid Bromine	900 TPA	16.8	36	35
9	NEPA Ltd	Newsprint	88,000 TPA	53.89	32.30	50.81
8	Security Printing and Minting Corpn. of India Ltd.	Coins	3840 M.Pcs	158.08	151.90	174.06
		Bank Notes	3950 M.Pcs	138.53	179.32	155.54

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

- Artificial Limbs Manufacturing Corporation of India produced 4378 nos. Mechanical Hands, 26800 nos. Axilla Crutch, 21921 nos. Wheel Chairs, 36540 nos. Tricycles and 26305 nos. Hearing Aids in 2010-11. The corresponding figures for the previous year were 3681, 61319, 26126, 60250 and 23386 respectively.
- The Cement Corporation of India Ltd. produced 9.00 lakh MT cement during the year 2010-11 as compared to a production of 9.68 lakh MT during the previous year.
- HLL Lifecare Ltd. (formerly Hindustan Latex Ltd.) produced 1328 million pieces of condoms during the year 2010-11 as compared to 1320 million pieces in the previous year.
- The Hindustan Newsprint Ltd. produced 104911 MT of newsprint during 2010-11 as against 100546 MT during the previous year.
- The production of writing & printing paper by Hindustan Paper Corporation Ltd. during the year 2010-11 was 154783 MT as compared to 166639 MT during the previous year.
- The NEPA Ltd. produced 47425 MT of newsprint during 2010-11 as against 28425 MT during the previous year.
- Security Printing and Minting Corporation of India Ltd. produced 6070.15 Million pieces of Coins and 5472 Million pieces of Bank Notes during the year 2010-11 as compared to 5832.88 Million pieces of Coins and 7083 Million pieces of Bank Notes during the previous year.

4.1.12 Crude Oil

The capacity utilization in the cognate group of Crude Oil in respect of two CPSEs, during the last 3 years, is shown below:-

Table 4.1.12

Sl.No	CPSE	Product	Unit	Production		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Oil and Natural Gas Corporation Ltd.	Crude Oil	MMT	27.28	26.46	27.13
		Natural Gas	BCM	25.32	25.59	25.44
2	Oil India Ltd.	Crude Oil	000KL	3586	3572	3930
		Natural Gas	MSCM	2352	2415	2269
		LPG	MT	45010	44950	47610

(MMT – Million Metric Tonne; BCM – Billion Cubic Metre; KL – Kilo Litre; MSCM – Million Standard Cubic Metre; MT – Metric Tonne)

4.1.13 TEXTILES

The capacity utilization in the cognate group of Textiles in respect of one CPSE, during the last 3 years, is shown below:-

Table 4.1.13

Sl. No.	CPSE	Product	Installed Capacity (2010-11)	Capacity Utilization (%)		
				2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	National Textile Corporation Ltd.	Yarn	692240 Spindles	78.28	79.39	73.62
		Cloth	430 Looms	79.88	78.81	75.36

During the year 2010-11, National Textiles Corporation Ltd. has produced 346.03 lakh kilograms of yarn and 89.91 lakh meters of cloth as compared to 298.75 lakh kilograms of yarn and 127.32 lakh meters of cloth during the previous year.

4.2 Inventory Management

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 adequate importance in the present context in view of the thrust on performance improvement. An attempt has been made in the paragraphs below to present an overview,

cognate group-wise and company-wise, of inventory position in CPSEs.

4.2.1 Overall Analysis

Materials management in public enterprises has improved over the years. The level of inventory, which was 72 days cost of production (or value of turnover) as on 31.3.1997 declined to 55 days cost of production as on 31.3.2011. The overall position vis-a-vis inventory level, during the last 15 years, is shown in Table 4.2.1 below:

Table 4.2.1

Year ending	Value of Inventory (₹ in crore)	Cost of Production/ Turnover Value (₹ in crore)	Level of Inventory (in no. of days Cost of Production)
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	126327	1147734	40
31.3.2010	161798	1087601	54
31.3.2011	196023	1303354	55

Note : Level of Inventory = (Value of Inventory / (Cost of Product/Turnover Value)) X 365 days

The above figures do not include inventory held by the Food Corporation of India, Cotton Corporation of India Ltd. and Jute Corporation of India Ltd. as these Corporations, given the nature of service, make large scale purchases and maintain stocks. Further, the public sector enterprises operating in Industrial Development and Technical Consultancy Services, Tourist Services, Financial Services as well as Section 25 Companies have also been excluded from the review in this chapter.

4.2.2 Group-Wise Analysis

The CPSEs have been grouped into various cognate groups depending upon the nature of their activities. The analysis of inventory management is based on these groupings. The inventory position in each of the cognate group during the last two years is shown in the Table 4.2.2 below:

Table 4.2.2

Cognate Group	Inventory as on 31.3.2010		Inventory as on 31.3.2011	
	Value (₹ in crore)	Level of Inventory (in no. of days cost of production)	Value (₹ in crore)	Level of Inventory (in no. of days cost of production)
(a) Agriculture Sector				
1. Agro-based Industries	122.81	59	151.75	59
Total	122.81	59	151.75	59
(b) Electricity Sector				
1. Electricity Generation	4476.20	26	4717.62	23
2. Electricity Transmission	344.90	9	381.51	8
Total	4821.10	23	5099.13	20
(c) Manufacturing Sector				
1. Chemicals & Pharmaceuticals	259.40	47	519.54	88
2. Consumer Goods	1413.29	93	1562.02	94
3. Fertilizers	1550.94	37	1768.06	39
4. Heavy Engineering	9495.29	115	11307.34	116
5. Medium & Light Engineering	4023.80	92	3779.48	98
6. Petroleum (Refinery & Mktg.)	70686.62	41	92984.26	44
7. Steel	11868.04	104	15044.71	108
8. Textiles	118.06	52	278.21	83
9. Transportation Equipment	27800.69	451	34785.03	486
Total	127216.13	61	162028.65	63

(d) Mining Sector				
1. Coal & Lignite	4395.48	43	5578.85	50
2. Crude Oil	5323.90	41	4777.24	33
3. Other Minerals & Metals	1938.66	72	2298.77	70
Total	11658.04	45	12654.86	44
(e) Services Sector				
1. Contract & Construction Services	7883.19	243	7353.87	218
2. Telecommunication Services	5217.99	73	4074.37	59
3. Trading & Marketing Services	3631.52	15	3503.99	12
4. Transport Services	1248.12	17	1156.60	14
Total	17980.82	43	16088.83	33

In the Agriculture Sector, the level of inventory in terms of the number of days cost of production/turnover value remained unchanged at 59 days as on 31.3.2011. In the Electricity Sector, the level of inventory which was 23 days as on 31.3.2010 has come down to 20 days as on 31.3.2011. In the Manufacturing Group, there is an increase in the level of inventory from 61 days as on 31.3.2010 to 63 days as on 31.3.2011. In the case of the Mining Sector, the level of inventory which was 45 days as on 31.3.2010 has slightly come down to 44 days as on 31.3.2011. However, in the case of Services Sector, the level of inventory, which was 43 days cost of production/turnover value as on 31.3.2010 has come down to 33 days as on 31.3.2011.

It is observed that there is reduction in the level of inventory in terms of number of days cost of production/turnover value in sectors viz. Electricity Generation, Electricity Transmission, Medium & Light Engineering, Crude Oil, Other Minerals & Metals, Contract & Constructions Services, Telecommunication Services, Trading & Marketing Services and Transport Services. The level of inventory has gone up in sectors like Chemicals & Pharmaceuticals, Consumer Goods, Fertilizers, Heavy Engineering, Petroleum (Refinery & Marketing), Steel, Textiles and Transport Equipment. It remained unchanged in Agro based Industries sector. Overall, the level of inventory which was 54 days cost of production during 2009-10 has slightly gone up to 55 days cost of production/turnover during 2010-11.

4.2.3 Heavy Engineering

The value of inventory held by the nine public enterprises belonging to this group was ₹ 11307.34 crore representing 116 days cost of production as on 31.3.2011 as against a total inventory valued at ₹ 9495.29 crore representing 115 days cost of production as on 31.3.2010.

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 5.2.3 below:

Table 4.2.3

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Bhart Bhari Udyog Nigam Ltd	0.92	0.27	24	01
2.	Bharat Heavy Electricals Ltd.	10963.03	9235.46	116	117
3.	Bharat Heavy Plate & Vessels Ltd.	52.84	45.69	149	167
4.	Bharat Wagon & Engg. Co. Ltd.	9.19	7.84	72	73
5.	Braithwaite & Co. Ltd.	19.65	19.10	43	54
6.	Burn Standard Company Ltd.	22.52	22.13	49	23
7.	Heavy Engineering Corpn. Ltd.	234.55	159.31	125	109
8.	Triveni Structurals Ltd.	4.07	4.68	27	29
9.	Tungabhadra Steel Products Ltd.	0.57	0.81	7	10
10.	Total	11307.34	9495.29	116	115

Of the nine CPSEs, six CPSEs could reduce the level of inventory during 2010-11 as compared to the previous year, while in the case of three CPSEs, there has been increase in the level of inventory.

4.2.4 Medium & Light Engineering

The value of inventory held by 21 enterprises of this group as on 31.3.2011 was ₹ 3779.48 crore representing 98 days cost of production as compared to ₹ 4023.80 crore representing 92 days cost of production held by them as on 31.3.2010. The company-wise inventory position for the last two years is shown in the Table 5.2.4 below:

Table 4.2.4

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1	Andrew Yule & Co. Ltd.	37.12	30.70	54	49
2	Balmer Lawrie & Co. Ltd.	119.32	91.70	23	22
3	Bharat Dynamics Ltd.	502.19	570.26	188	283

4	Bharat Electronics Ltd.	2460.77	2448.71	191	198
5	BEL Optronics Ltd.	5.48	9.75	48	58
6	Bharat Pumps & Compressors Ltd.	51.76	67.13	100	104
7	Biecco Lawrie Ltd.	12.14	10.70	56	62
8	Central Electronics Ltd.	48.50	44.10	116	133
9	Electronics Corpn. of India Ltd.	156.60	194.68	43	60
10	Hindustan Cables Ltd.	27.61	27.64	17	20
11	HMT Bearings Ltd.	3.24	3.21	49	61
12	HMT Chinar Watches Ltd.	6.80	6.83	54	59
13	HMT Ltd.	28.35	29.00	35	44
14	HMT Machine Tools Ltd.	78.16	95.76	103	140
15	HMT Watches Ltd.	32.74	32.31	59	63
16	ITI Ltd.	117.89	284.22	17	19
17	IDPL (Tamilnadu) Ltd.	2.05	2.05	69	69
18	Instru-mentation Ltd.	61.17	55.59	78	56
19	Rajasthan Electronics & Instruments Ltd.	16.08	8.77	44	34
20	Richardson & Cruddas (1972) Ltd.	2.56	3.31	08	11
21	Vignyan Industries Ltd.	8.95	7.38	95	85
	Total	3779.48	4023.80	98	92

Of the 21 public enterprises, 15 could reduce the level of inventory during 2010-11 as compared to the previous year while in the case of 5 companies there has been increase in the level of inventory. It remained, unchanged in the case of IDPL (Tamil Nadu) Ltd.

4.2.5 Other Minerals & Metals

There were 12 companies operating in this group. The value of inventory held by these companies during the year 2010-11 was ₹ 2298.77 crore representing 70 days cost of production. At the end of 2009-10, the value of inventory was ₹ 1938.66 crore representing 72 days cost of production. The company-wise details are presented in the Table 5.2.5 below:

Table 4.2.5

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Bisra Stone Lime Company Ltd	7.09	6.40	40	44
2.	F&I Aravali Gypsum & Minerals (I) Ltd.	1.67	0.56	12	6
3.	Hindustan Copper Ltd.	322.66	253.26	123	78
4.	Indian Rare Earths Ltd.	45.73	65.73	47	71
5.	J&K Mineral Dev. Corpn. Ltd.	0.00	0.00	0	0
6.	Kudremukh Iron Ore Co. Ltd.	235.85	224.85	52	75
7.	Manganese Ore (India) Ltd.	97.43	47.54	78	46
8.	National Aluminum Co. Ltd.	1058.47	944.92	79	79
9.	National Mineral Dev. Corpn. Ltd.	415.42	298.75	51	58
10.	Eastern Investment Ltd	0.00	0.00	0	0
11.	Uranium Corporation of India Ltd.	86.69	69.08	53	54
12.	Orissa Mineral Development Co. Ltd	27.76	27.57	122	185
	Total	2298.77	1938.66	70	72

Of the 12 public enterprises, 6 could reduce the level of inventory during 2010-11 as compared to the previous year, while in case of 3 companies there has been increase in the level of inventory. It remained unchanged in the case of 3 companies.

4.2.6 Fertilizers

There were 7 companies engaged in the production of fertilizers. The value of inventory held by them as on 31.3.2011 was ₹1768.06 crore representing 39 days cost of production as compared to an inventory value of ₹1550.94 crore representing 37 days cost of production at the end of previous year. Company-wise analysis of inventory is given in Table 5.2.6 below:

Table 4.2.6

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2010-11	2009-10	2010-11	2009-10
1.	Brahmaputra Valley Fertilizer Corpn.	36.52	39.72	27	44
2.	Fertilizers & Chem. (Travancore) Ltd.	613.74	575.85	87	89

3.	Fertilizer Corpn. of India Ltd.	15.56	15.56	10	10
4.	Hindustan Fertilizer Corpn. Ltd.	2.13	2.14	2	2
5.	Madras Fertilizers Ltd.	202.22	160.96	45	44
6.	National Fertilizers Ltd.	363.14	347.12	23	26
7.	Rashtriya Chemicals & Fertilizers Ltd.	534.75	409.59	37	28
	Total	1768.06	1550.94	39	37

The level of inventory has decreased in 3 public enterprises during 2010-11 and increased in case of 2 public enterprises. It remained unchanged in the case of 2 public enterprises.

4.2.7 Chemicals & Pharmaceuticals

The value of inventory held by 11 enterprises belonging to this group as on 31.3.2011 was ₹519.54 crore representing 88 days cost of production as compared to ₹259.40 crore representing 47 days cost of production held by them as on 31.3.2010. The company wise inventory position for last two years is given in Table 5.2.6 below:-

Table 4.2.7

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2010-11	2009-10	2010-11	2009-10
1.	Bengal Chem. & Pharmaceuticals Ltd.	25.63	25.51	120	110
2.	Bharat Immunologicals & Biologicals Ltd.	1.49	2.11	73	94
3.	Hindustan Antibiotics Ltd.	33.55	38.67	91	76
4.	Hindustan Insecticides Ltd.	61.84	58.26	86	91
5.	Hindustan Fluorocarbons Ltd.	20.81	18.44	214	295
6.	Hindustan Organic Chemicals Ltd.	110.17	76.26	59	48
7.	Indian Drugs & Pharmaceuticals Ltd.	219.10	6.80	121	4
8.	Indian Medicines & Pharmaceuticals Corp. Ltd.	7.79	6.81	116	120
9.	Karnataka Antibiotics & Pharma. Ltd.	27.17	18.20	51	36
10.	Orissa Drugs & Chemicals Ltd.	0.66	0.96	40	67
11.	Rajasthan Drugs & Pharm. Ltd.	11.33	7.38	52	33
	Total	519.54	259.40	88	47

Of the 11 public enterprises, 5 could reduce the level of inventory during 2010-11 as compared to the previous year while in case of 6 enterprises there has been increase in the level of inventory.

4.2.8 Steel

The value of inventory held by five companies was ₹15044.71. crore at the end of 2010-11 as compared to ₹11868.04 crore held by them at the end of 2009-10. The level of inventory has gone up from 104 days cost of production at the end of the previous year to 108 days cost of production at the end of 2010-11. The company-wise position is shown in the Table 5.2.8 below:

Table 5.2.8

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Ferro Scrap Nigam Ltd.	8.86	10.41	19	25
2.	Maharashtra Elektrosmet Ltd.	86.09	58.19	95	75
3.	Mishra Dhatu Nigam Ltd.	392.26	320.46	342	370
4.	Rashtriya Ispat Nigam Ltd.	3254.71	2451.52	112	100
5.	Steel Authority of India Ltd.	11302.79	9027.46	105	103
	Total	15044.71	11868.04	108	104

The value of inventory has decreased in two enterprises during 2010-11 as compared to the previous year, and increased in 3 enterprises.

4.2.9 Transportation Equipment

Nine CPSEs are engaged in the production of transportation equipment. The value of inventory held by these companies was ₹34785.03 crore during the year 2010-11 as against ₹27800.69 crore during 2009-10. The inventory level, which was 451 days cost of production at the end of previous year, has gone up to 486 days cost of production at the end of 2010-11. The company-wise details are given in the Table 5.2.9 below:

Table 5.2.9

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Bharat Earth Movers Ltd.	1888.91	1653.00	191	178
2.	Cochin Shipyard Ltd.	234.77	339.28	68	105

3.	Garden Reach Shipbuilders & Engrs. Ltd.	2306.95	1531.55	853	669
4.	Goa Shipyard Ltd.	299.93	363.07	144	175
5.	Hindustan Aeronautics Ltd.	17427.18	13660.03	400	391
6.	Hindustan Shipyard Ltd.	331.66	478.90	135	263
7.	Hooghly Dock & Port Engineers Ltd.	93.79	73.21	529	408
8.	Mazagon Dock Ltd.	12166.29	9674.82	1805	1309
9.	Scooters India Ltd.	35.55	26.83	70	59
	Total	34785.03	27800.69	486	451

Of the nine CPSEs, three could reduce the level of inventory during 2010-11 as compared to the previous year. It increased in the case of 6 enterprises during the year 2010-11.

4.2.10 Consumer Goods

Fourteen CPSEs belonging to the consumer goods group held an inventory valued at ₹1562.02 crore representing 94 days cost of production during the year 2010-11, as against an inventory valued at ₹1413.29 crore held by them during the previous year representing 93 days cost of production. The company-wise position is given in Table 5.2.7 below:

Table 4.2.10

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Artificial Lims Mfg. Co. of India.	21.23	17.55	150	117
2.	Cement Corpn. of India Ltd.	130.03	123.53	142	144
3.	HLL Lifecare Ltd .	57.39	53.12	41	46
4.	Hindustan Newsprint Ltd.	69.09	61.06	81	74
5.	Hindustan Paper Corpn. Ltd.	117.71	186.11	60	90
6.	Hindustan Photo Films Manfg. Co. Ltd.	15.42	14.18	05	5
7.	Hindustan Salts Ltd	0.70	0.51	15	8
8.	Hindustan Vegetable Oils Corpn. Ltd.	1.53	1.66	23	24
9.	Hooghly Printing Co. Ltd.	0.19	0.40	06	16
10.	Nagaland Pulp & Paper Mills Ltd.	0.27	0.32	07	8
11.	NEPA Ltd.	14.73	15.76	28	42
12.	Sambhar Salts Ltd	4.38	4.57	108	124

13.	Security Printing & Minting Corpn. of India	1127.64	931.09	157	141
14.	Tyre Corpn. of India Ltd.	1.71	3.43	16	54
	Total	1562.02	1413.29	94	93

The level of inventory has decreased in nine CPSEs during 2010-11 and increased in four enterprises. In the case of Hindustan Photo Films Manufacturing Ltd, the level of inventory remained unchanged.

4.2.11 Petroleum (Refinery & Marketing)

There are eight CPSEs operating in THE Petroleum (Refinery & Marketing) sector as on 31.3.2011. These companies had inventory valued at ₹92984.26 crore as on 31.3.2011 as compared to ₹70686.62 crore at the end of previous year. The level of inventory was 41 days of turnover value as on 31.3.2010 as against 44 days of turnover value as on 31.3.2011. The company-wise details of inventory are presented in the Table 5.2.11 below:

Table 4.2.11

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days (Turnover Value))	
		2010-11	2009-10	2010-11	2009-10
1	Bharat Petroleum Copn. Ltd.	15375.08	12028.86	34	33
2	Chennai Petroleum Corpn. Ltd.	5112.98	4378.24	49	55
3	GAIL (India) Ltd.	855.11	631.70	9	9
4	GAIL Gas Ltd	4.72	0.00	58	0
5	Hindustan Petroleum Corpn. Ltd.	16622.28	12579.22	46	42
6	Indian Oil Corpn. Ltd.	49284.52	36404.08	50	46
7	Mangalore Refinery & Petrochemicals Ltd.	4097.38	3114.36	34	31
8	Numaligarh Refinery Ltd.	1632.19	1550.16	66	72
	Total	92984.26	70686.62	44	41

The value of inventory has increased in 5 public enterprises during 2010-11 as compared to the previous year and decreased in 2 enterprises. It remain unchanged in the case of GAIL (India) Ltd.

4,2,12 Crude Oil

There are four CPSEs operating in the Crude Oil sector as on 31.3.2011. These CPSEs had inventory valued at ₹4777.24. crore as on 31.3.2011 as compared to ₹5323.90 crore at the end of previous year. The level of inventory was 41 days cost of production as on 31.3.2010 as against 33 days cost of production as on 31.3.2011.

The company-wise details of inventory are presented in the Table 5.2.12 below:

Table 4.2.12

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Bharat Petro Recourses Ltd.	0.00	0.00	0	0
2.	Oil & Natural Gas Corpn. Ltd.	4118.98	4678.58	34	43
3.	Oil India Ltd.	500.36	453.38	35	33
4.	ONGC Videsh Ltd.	157.90	191.94	18	23
	Total	4777.24	5323.90	33	41

The value of inventory has increased in the case of one CPSE during 2010-11 as compared to the previous year, and decreased in THE case of two CPSEs. Bharat Petro Resources Ltd did not hold any inventory during 2010-11.

4.2.13 Agro-Based Industries

The value of inventory held by three companies belonging to this group was ₹151.75 crore at the end of 2010-11 as compared to ₹122.81 crore at the end of the previous year. The level of inventory remained unchanged at the level of 59 days cost of turnover at the end of 2010-11. Details of inventory held by these enterprises are given in the Table 5.2.13 below:

Table 4.2.13

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/ Cost of Turnover (No. of days)	
		2010-11	2009-10	2010-11	2009-10
1.	Andaman & Nicobar Island. Forest & Plantation	1.72	0.69	203	49
2.	National Seeds Corpn. Ltd.	63.08	50.55	37	40
3.	State Farms Corpn. of India Ltd	86.95	71.57	103	89
	Total	151.75	122.81	59	59

Of the three CPSEs under this group, one enterprise could reduce the level of inventory during 2010-11 as compared to the previous year and the level of inventory increased in the case of two enterprises.

4.2.14 Coal & Lignite

The value of inventory held by eight public enterprises belonging to this group as on 31.3.2011 was ₹5578.85 crore as compared to ₹4395.48 crore at the end of previous year. The level of inventory was 50 days cost of production as on 31.3.2011 as compared to 43 days cost of production

at the end of previous year. Company-wise details are given in Table 5.2.14 below:

Table 4.2.14

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1	Bharat Coking Coal Ltd.	1112.36	938.90	73	73
2	Central Coalfields Ltd.	1446.99	1177.18	106	93
3	Coal India Ltd.	35.70	26.59	17	12
4	Eastern Coalfields Ltd.	568.72	453.36	33	31
5	Mahanadi Coalfields Ltd.	591.07	452.72	46	37
6	Northern Coalfields Ltd.	493.97	407.55	39	34
7	South Eastern Coalfields Ltd.	892.95	645.01	41	32
8	Western Coalfields Ltd.	437.09	294.17	29	20
	Total	5578.85	4395.48	50	43

The value of inventory has increased in the case of seven CPSEs during 2010-11 as compared to the previous year, and remained unchanged in the case of Bharat Coking Coal Ltd,

4.2.15 Textiles

There are four companies in the Textiles Sector as on 31.3.2011. The value of inventory held by companies belonging to this group was ₹278.21 crore at the end of 2010-11 as compared to an inventory of ₹118.06 crore at the end of previous year. The level of inventory was 83 days cost of production during the year 2010-11 and 52 days at the end of previous year. The company wise details are given in the Table 4.2.15 below:

Table 4.2.15

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Production)	
		2010-11	2009-10	2010-11	2009-10
1.	Birds, Jute & Exports Ltd.	0.00	0.00	0	0
2.	British India Corpn. Ltd.	7.76	9.37	56	71
3.	National Jute Manufacturers Corpn. Ltd.	20.80	0.00	135	0
4.	National Textile Corpn. Ltd.	249.65	108.69	82	53
	Total	278.21	118.06	83	52

Of the four CPSEs, the level of inventory increased in the case of National Jute Manufacturers Corpn. Ltd. and National Textile Corporation Ltd as compared to previous year. Birds Jute & Exports Ltd did not hold any inventory

during 2010-11. It decreased in the case of British India Corporation Ltd.

4.2.16 Electricity Generation

The value of inventory held by 10 electricity generating companies as on 31.3.2011 was ₹4717.62 crore as compared to ₹4476.20 crore at the end of previous year. The level of inventory was 23 days of turnover value as on 31.3.2011 as against 26 days of turnover value as on 31.3.2010. The company wise break-up of inventory is given in the Table 5.2.16 below:

Table 5.2.16

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Turnover Value)	
		2010-11	2009-10	2010-11	2009-10
1.	Kanti Bijlee Utpadan Nigam Ltd	2.42	0.97	18	0
2.	Neyveli Lignite Corpn Ltd	491.71	502.96	45	45
3.	Narmada Hydro Electric Development Corpn.	5.50	4.02	02	02
4.	National Hydroelectric Power Corpn. Ltd.	53.65	71.15	05	6
5.	North Eastern Electric Power Corpn. Ltd.	91.42	84.93	28	30
6.	National Thermal Power Corpn. Ltd.	3639.12	3347.71	24	26
7.	Nuclear Power Corpn. of India	392.44	388.77	24	37
8.	REC Power Distribution Co. Ltd.	0.00	0.00	0	0
9.	Satluj Jal Vidyut Nigam Ltd.	23.68	58.67	5	12
10.	Tehri Hydro Development Corpn. Ltd.	17.68	17.02	4	4
	Total	4717.62	4476.20	23	26

Of the 10 public enterprises under this group, 5 could reduce the level of inventory during 2010-11 as compared to the previous year while in the case of one enterprise there has been increase in the level of inventory. REC Power Distribution Co. Ltd. did not hold any inventory during 2010-11. The level of Inventory remained unchanged in the case of three CPSEs.

4.2.17 Transport Services

There are 12 CPSEs operating in the transportation services sector. Of the 12 companies, Air India Air Transport Services Ltd. did not hold any inventory. The value of inventory held by the remaining 11 companies was ₹1156.60 crore as on 31.3.2011 as compared to an inventory valued at ₹1248.12 crore at the end of previous year. The company-wise details are given in the Table 4.2.17 below:

Table 4.2.17

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Turnover)	
		2010-11	2009-10	2010-11	2009-10
1.	Air India Air Transport Services Ltd.	0.00	0.00	0	0
2.	Air India Charters Ltd.	43.54	38.44	12	10
3.	Airline Allied Services Ltd.	13.60	13.20	17	15
4.	Airports Authority of India	92.63	65.42	7	6
5.	Container Corp. of India Ltd.	6.26	6.99	01	1
6.	Dredging Corp. of India Ltd.	91.87	89.45	73	51
7.	Ennore Port Ltd.	4.79	4.79	09	11
8.	Fresh & Healthy Enterprises Ltd.	6.22	8.77	35	128
9.	National Aviation Co. of India Ltd.	675.96	867.78	18	24
10.	Pawan Hans Helicopters Ltd.	74.26	68.69	70	68
11.	Shipping Corp. of India Ltd.	146.50	83.21	15	9
12.	Central Inland Water Transport Corp Ltd	0.97	1.38	236	201
	Total	1156.60	1248.12	14	17

In the Transport Services Sector, out of 12 public enterprises, 3 could reduce the level of inventory during 2010-11 as compared to the previous year while in the case of seven CPSEs there has been increase in the level of inventory. The level of inventory remained unchanged in the case one CPSEs. No inventory was held by Air India Air Transport Services Ltd.

4.2.18 Trading & Marketing Services

There were 21 companies in the Trading & Marketing Services group during the year 2010-11. Three CPSEs namely, Food Corp. of India, Cotton Corp. of India and Jute Corp. of India have been excluded for the purpose of analysis as these corporations keep stocks as a deliberate policy. As such, the analysis covers the remaining 18 companies only. These 18 companies held inventory valued at ₹ 3503.99 crore representing 12 days of turnover value at the end of 2010-11 as compared to an inventory of ₹ 3631.52 crore representing 15 days of turnover value at the end of previous year. The company-

wise details are given in the Table 4.218 below:

Table 4.2.18

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Turnover)	
		2010-11	2009-10	2010-11	2009-10
1	Antrix Corporation Ltd	0.00	0.00	0	0
2	Central Cottage Industries Corp.	5.45	5.39	31	29
3	Central Railside Warehousing Co. Ltd.	0	0.04	0	0
4	Central Warehousing Corp.	7.23	6.23	3	3
5	Handicrafts & Handlooms Exports Corp.	35.35	23.98	3	6
6	H.M.T. (International) Ltd.	0	0.52	0	6
7	India Trade Promotion Organization	0	0.08	0	0
8	Karnataka Trade Promotion Organization	0	0.00	0	0
9	MMTC Ltd.	647.97	2134.83	3	17
10	MSTC Ltd.	16.18	0.00	3	0
11	National Handloom Development Corp. Ltd.	1.77	3.81	1	1
12	North Eastern Handicrafts & Handlooms Corp. Ltd.	1.44	1.32	30	33
13	North Eastern Regional Agriculture Marketing Development Corporation	0.40	0.86	1	3
14	NTPC Vidyut Vyapar Nigam Ltd.	0.02	0.06	0	1
15	PEC Ltd.	1474.29	887.37	54	29
16	STCL Ltd.	0.06	0.10	0	0
17	State Trading Corp. Ltd.	1313.75	567.01	24	10
18	Tamilnadu Trade Promotion Organization	0	0.00	0	0
	Total	3503.99	3631.52	12	15

Of the 18 CPSEs in this group, six CPSEs could reduce the level of inventory during 2010-11 as compared to the previous year while in 4 enterprises there has been increase in the level of inventory. No inventory was held by Antrix Corporation Ltd, Central Railside Warehousing Co., Tamilnadu Trade Promotion Organization, Karnataka Trade Promotion Organization, STCL Ltd and India Trade Promotion Organization. It remained unchanged in the case of two CPSEs.

4.2.19 Contract & Construction Services

There were 13 public sector enterprises operating in the Contract & Construction Services group. Of the 13 companies, Mumbai Railway Vikas Corpn. Ltd and IRCON Infrastructure Services Ltd. did not hold any inventory. The value of inventory held by the remaining 11 companies in this group was ₹7353.87 crore as on 31.3.2011 as compared to ₹7883.19 crore held by them at the end of previous year. The level of inventory has decreased from 243 days of turnover value to 218 days of turnover value. The company-wise details are given in the Table 4.2.19 below:

Table 4.2.19

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Cost of Turnover)	
		2010-11	2009-10	2010-11	2009-10
1	BBJ Construction Co. Ltd.	34.44	23.88	82	112
2	Bridge & Roof Co. (India) Ltd.	584.52	471.15	161	148
3	Hindustan Prefab Ltd.	0.34	0.50	1	1
4	Hindustan Steelworks Constn. Ltd.	2.95	5.88	1	3
5	IRCON Infrastructure & Services Ltd	0.00	0.00	0	0
6	IRCON (International) Ltd.	300.46	373.36	35	43
7	Konkan Railway Corpn. Ltd.	24.33	14.04	15	9
8	Mineral Exploration Corpn. Ltd.	6.96	5.81	20	17
9	Mumbai Railway Vikas Corpn. Ltd.	0	0.00	0	0
10	National Bldg. Constn. Corpn. Ltd.	409.48	266.64	48	33
11	National Projects Constn. Corpn. Ltd.	3.27	3.54	1	1
12	Projects & Development India Ltd	4.72	2.42	17	12
13	Rail Vikas Nigam Ltd.	5982.40	6715.97	1511	1401
	Total	7353.87	7883.19	218	243

Of the 13 public enterprises, 3 could reduce the level of inventory during 2010-11 as compared to the previous year, while in the case of six enterprises, there has been increase in the level of inventory. It remained unchanged in case of Hindustan Prefab Ltd. and National Projects Constn. Corpn. Ltd. No inventory was held by Mumbai Railway Vikas Corporation Ltd. and IRCON Infrastructure & Services Ltd during 2010-11.

4.2.20 Telecommunication 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., belonging to this group held an inventory valued at ₹4074.37 crore as on 31.3.2011 as compared to ₹5217.99 crore held by them at the end of the previous year. Level of inventory has come down from 73 days of turnover value during 2009-10 to 59 days of turnover value in 2010-11. The company-wise details are given in the Table 4.2.20 below:

Table 4.2.20

Sl. No.	Name of the Company	Inventory (₹ in crore)		Level of Inventory (in no. of days Turnover Value)	
		2010-11	2009-10	2010-11	2009-10
1.	Bharat Sanchar Nigam Ltd.	3948.24	5058.33	68	83
2.	Mahanagar Telephone Nigam Ltd.	125.48	158.51	12	16
3.	Railtel Corporation India Ltd.	0.65	1.15	01	1
4.	Millennium Telecom Ltd.	0	0.00	0	0
	Total	4074.37	5217.99	59	73

Of the four CPSEs in the Telecommunication Services group, the level of inventory decreased in the case of two enterprises during 2010-11 as compared to the previous year. It remained unchanged in the case of Railtel Corporation India Ltd. No inventory was held by Millennium Telecom Ltd.

4.2.21 Electricity Transmission

The value of inventory held by 4 electricity transmission companies as on 31.3.2011 was ₹381.51 crore as compared to ₹344.90 crore at the end of previous year. The level of inventory was nine days of turnover value as on 31.3.2010 as against eight days of turnover value as on 31.3.2011. The company-wise breakup of inventory is given in the Table 4.2.21 below:-

Table 4.2.21

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Turnover (No. of days)	
		2010-11	2009-10	2010-11	2009-10
1.	Power Grid Corporation of India	381.51	344.90	17	18
2.	NTPC Electric Supply Co. Ltd.	0	0	0	0
3.	REC Transmission Project Co. Ltd	0	0	0	0
4.	Rural Electrification Corpn Ltd	0	0	0	0
	Total	381.51	344.90	8	9

Of the four CPSEs, the level of inventory decreased in the case of Power Grid Corporation of India Ltd. during the year 2010-11 while in the case of NTPC Electric Supply Co. Ltd., REC Transmission Project Co. Ltd and Rural Electrification Corpn. Ltd. did not hold any inventory.

4.3 Energy Conservation in CPSEs

Rapid increase in energy demand and consumption in all the economic sectors of the economy, consequent to high economic growth, has led to overall shortage of both peak and normal energy requirements. In this perspective, the issue of energy conservation has assumed great importance. There is a greater merit in energy conservation to-day as creating or building additional capacity is not only capital intensive but also time consuming. Additional investment for energy conservation measures, if necessary, is more cost effective and yields results within a short period. Since CPSEs form a significant component of the Indian economy, they have a major role to play in the area of energy conservation.

The cognate group-wise pattern of energy consumption is given in Annex. 4.1. Energy cost as percentage of total cost is, moreover, higher in the case of power generation, Transportation, Fertilizer and Other metals & Minerals (Annex 4.1). In absolute terms, Petroleum, Steel and telecom sectors are also high energy consuming sectors. Although in absolute terms, the total cost of energy is increasing in almost all the sectors, the energy cost as a percentage of total cost has shown a significant decline in Power Generation Sector. Energy conservation measures taken by some of the CPSEs during the year 2010-11 are discussed in the paragraphs below.

4.3.1 Bharat Coking Coal Limited (BCCL)

The details of energy consumption of the company are as under:

Electrical Consumption per unit of output of Coal			
Energy input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Kwh/Te	32.02	34.20	37.20
Diesel consumption for HEMM			
Liter/Cum	0.81 (prov)	0.79	0.83

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) Specific electrical energy per ton coal output (KWH/Te) has reduced by 6% at 32.02KWH/Te in 2009-10 from 34.2KWH/Te in 2009-10.
- 2) High tension supply voltage at 3.3KV has been introduced in different underground mines of Bastacolla, PB, Gobindpur, Sijua, Lodna, Kustore, Katras & Barora Area. This has reduced transmission losses in the power system in these underground mines.

- 3) Stage pumping has been eliminated by providing high head pumps and pumping of water through borehole in Choitudih mine, Lodna mine, Murlidih 20/21 mine, Sendra-Bansjora mine, Alkusa mine and Simlabahal mine has been done.
- 4) Strata bunker in 16 bottom seam in Moonidih mine has been completed. This will restrict operation of conveyors.
- 5) Pipes of suitable size for delivery/ suction has been provided and used in pumps with undersize pipes. This has eliminated friction losses occurring in the pumping system.
- 6) Idle running of belt conveyors has been stopped by providing sequence control in belt conveyors working in random.
- 7) All auxiliary fans procured during the year are provided with fiber blades. This has reduced the power consumption of these fans by about 8-10%.
- 8) Main pumping operation during the peak load hours is stopped in the mines wherever there is possibility to do so.
- 9) Power factor at all the consuming points is around 95% and it is being constantly monitored. BCCL is getting rebate from DVC for maintaining the power factor within permissible limit.
- 10) BCCL has stopped procurement of GLS lamps, instead CFL lamps are used in offices and street lights.

4.3.2 Neyveli Lignite Corporation (NLC)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) One no. of Feed Pump and Circulating Water Pump has been replaced in Unit-3 and 9 respectively in TPS-1.
- 2) Modification in the BMS scanner cooling air system in 9 boilers were carried out in TPS-1
- 3) Centralized Energy Monitoring System is installed to monitor energy consumption of 6.6/0.4 KV Unit Station & Auxiliary equipment in TPS-1 Expansion.
- 4) Modification was done in slag conveyor system to reduce down time of the equipment in TPS-I Expansion
- 5) One stage of Condensate Extraction Pump in three units of Stage-II has been reduced which resulted in energy saving in TPS-II

- 6) Replacing Labyrinth seal with Mechanical seal in boiler feed pumps and optimization by speed adaptation in Hydro-coupling of boiler feed pumps.
- 7) In all in new machines and drive heads for the Mine-II Expn. Programmable Logic Control Systems are used instead of the conventional contactors. Control circuits and Variable Voltage and Variable Frequency systems speed control techniques for all main motor loads are introduced in Mine-II.
- 8) In Vulcanizing division in Mines conveyor belt joints are being carried out using ceramic heater plates instead of conventional heater plates which consume only 50% energy.
- 9) Installation of timer switches, energy efficient T5 series tube lights, replacement of conventional Sodium Vapour Lamps with Compact Fluorescent Lamps, introducing LED based Aviation Lamps in Drive Heads, Annunciation lamps etc., are being done in plants and Township which save a lot of energy.
- 10) The recommendations based on energy audit carried out earlier in Thermal Power Station-I, Thermal Power Station-I Expansion and Mine-II are being implemented and there is significant savings of energy on that account.

4.3.3 THDC India Limited (THDCIL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) National Productivity Council (NPC), New Delhi was retained to conduct energy efficiency studies in plant areas. The recommendations of NPC are being implemented.
- 2) All the office buildings and plants have been provided with Compact Fluorescent Lamp (CFL).
- 3) Street light fittings are being replaced by CFL and other initiatives for improvement of Power Factor (PF) are being taken.
- 4) Similar exercise is being done for the energy efficiency in Rishikesh Township. Energy audit of some residential and office complex was got conducted through M/s Petroleum Conservation Research Association. Recommendations of energy auditor are being implemented in a phased manner.
- 5) In new construction/renovation of buildings, energy efficient fixtures are being used.

- 6) Installation of solar water heater in Hostels and Guest Houses in THDC complex Rishikesh have already been completed resulting in saving of electrical energy.
- 7) With the stabilization of the irrigation in the Command Area in U.P. from the regulated flow of river water from Tehri & Koteshwar Dam there is substantial reduction in the use of energy requirement for pumping water for irrigation.
- 8) In all business set ups, THDCIL endeavors to promote efficient use of energy on continual basis.

4.3.4 Heavy Engineering Corporation Limited (HEC)

The details of energy consumption of the company are as under:

Energy Consumption as % of production			
Energy Input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Electricity	5.01	4.89	5.60
Coal	3.65	3.23	4.19
Fuel oil	0.24	0.26	0.30

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) Switching off Power transformers located in Plant on Sundays and holidays.
- 2) Switching off unloaded transformers to save power.
- 3) Replacement of MG Sets by use of Static Transformers and Rectifiers.
- 4) The use of energy efficient high pressure sodium vapor lamps/Tube lights.
- 5) Campaign to Switching off unwanted lights, fans and idle machines.
- 6) Reduction in heat cycle time for melting furnaces etc.
- 7) Use of ceramic lining in Furnaces and by installing programmable controller in electric pit furnace.
- 8) Synchronization of the operation of compressor units for optimum utilization of compressor air. Old centralized compressor unit is being replaced with energy efficient decentralized compressors at user end.

4.3.5 Rashtriya Ispat Nigam Limited (RINL)

The details of energy consumption of the company are as under:

Energy Consumption per unit of output			
Energy input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Coking coal (wet) – (Kg/tLS)	1090	1120	1033
Boiler coal (wet) – (Kg/tLS)	390	423	434
Imported Power – (KWh)	998	84	64

The reasons for deviation are mentioned below:

- 1) Coking coal consumption depends on the intermediate products like Pig iron production, coke production
- 2) Imported power depends on internal captive power generation
- 3) Boiler coal consumption depends on the availability of coal and power generation
- 4) Fuel consumption includes energy consumed for stocks like coke, sinter etc at various stages.

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

Project description	Electricity	Fuels*
	(Lakhs kWh)	Coal (T)
Increasing power generation by improving vacuum from 0.65 to 0.82 kg/cm ² by Chemical cleaning of TG-2, TG-3 condensers	233.02	-
Increasing power generation by improving vacuum from 0.65 to 0.82 kg/cm ² by Chemical cleaning of TB-1, TB2 & TB-3 condensers	203.30	-
Replacement of Air Recuperator in WRM reheating furnace-2	-	766.1
Replacement of Gas Recuperators in LMMM reheating furnace (2 nos.)	-	1206.0
Replacement of Air and Gas Recuperators in F/C-2 at MMSM	-	912.0
Replacement of Gas Recuperators in F/C-2 at MMSM	-	219.0
Improvement in Tar yield from 3.04 to 3.19 %	-	7395.0
Improvement in Hot blast temperature from 985 to 998 °C at blast furnace-1	-	4099.7
Improvement in Hot blast temperature from 1001 to 1011 °C at blast furnace-2	-	3154.0
Recycling of LD slag at Sinter plant	-	20531.6
Recirculation of Tar sludge, Benzol muck, ASP sludge and MBC sludge	-	1076.0

* Coal equivalent for thermal energy savings.

4.3.6 Central Electronics Limited (CEL)

The details of energy consumption of the company are as under:

Energy Consumption per unit of output*			
Energy Input (Power)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Solar PV Modules (Kwh)	1948343	1410279	1735734
Axle counters (Kwh)	449617	325449	400554

* Information is given in respect of total units of power consumed for major products/ Groups.

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) Copper ballasts are being replaced by electronic ballasts.
- 2) 40-watt tube-lights are being replaced by 28 watt T-5 tube light.
- 3) Power factor is being improved by improving performance of capacitor bank.
- 4) Street light bulbs are being replaced by LED lights.

4.3.7 NEPA Limited (NEPA)

The details of energy consumption of the company are as under:

Energy Consumption in manufacturing CPSEs			
Energy Input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Power (KWH/MT)	1349	1471	1443
Coal (MT/MT)	2.14	2.30M	2.20
Steam (MT/MT)	8.90	10.00	9.40

4.3.10 Bharat Pumps and Compressors Limited (BPCL)

The details of energy consumption of the company are as under:

Energy Consumption per unit of output			
Energy Input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Electricity of (Per Rupee Production)	0.0123	0.0078	0.0085
Furnace Oil of (Per Rupee Production)	0.0106	0.0065	0.0035
Coal	Nil	Nil	Nil

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) Energy Audit was conducted in the year 2007 by Academy of Conservation of Energy, Vadodara. As per recommendation of Energy Auditor, steps were undertaken and with a capital outlay of ₹ 10 lacs (approx.), various types of Apparatus/ instruments were purchased and installed. Various other in-house works were also undertaken.
- 2) In addition to above, capacitor banks installed and in turn, we have achieved Power Factor averaging above 0.95.

Due to above implementation, company has been able to save energy to the tune of ₹ 17.28 lacs which is of recurring nature.

4.3.9 KIOCL Limited

The details of energy consumption of the company are as under:

Energy Consumption per unit of output			
Energy Input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Kwh per tons of Pellet production	71.02	66.92	86.91

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) The specific electricity consumption per ton of Pellet production in kWh was higher during the year as compared to the previous year. Increase in consumption of electricity is on account of increased power consumption for grinding the Hematite Ore sourced from outside source.
- 2) The Company's operations are highly energy intensive. Keeping in view the importance of energy conservation, a specific plan and a programme has been drawn for compulsory energy audit to quantify the targets for energy conservation over the entire operational area. The recommendations of M/s Tata Energy Research Institute (TERI) (now M/s The Energy Research Institute), in the areas of energy conservation have been implemented. Energy conservation is an ongoing process. Efforts are continuing to conserve energy in all possible areas. Energy Audit is carried out through Petroleum Conservation & Research Association (PCRA) and some more measures of energy conservation are being planned as suggested by PCRA in a phased manner.

4.3.10 Bharat Heavy Plate & Vessels Ltd. (BHPVL)

The details of energy consumption of the company are as under:

Energy consumption			
Energy input (KWh)	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
Energy input per unit of output (KWh)	302.61	697.62	585.58

4.3.11 Hindustan Petroleum Corporation Limited (HPCL)

The details of energy consumption of the company are as under:

Energy Consumption per unit of output			
Energy Input	2008-09	2009-10	2010-11
(1)	(2)	(3)	(4)
Mumbai Refinery			
Fuel oil - MT/ TMT of production	37.18	27.59	21.77
Fuel Gas - MT/ TMT of production	13.41	31.32	39.55
Coke - MT/ TMT of production	4.87	4.95	4.91
Electricity - KWH/ MT of production	51.97	61.85	72.88
Visakh Refinery			
Fuel oil - MT/ TMT of production	31	37.18	39.94
Fuel Gas - MT/ TMT of production	11.16	16.09	18.57
Coke - MT/ TMT of production	8.86	8.39	7.08
Electricity - KWH/ MT of production	33.14	41.19	54.79

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

Mumbai Refinery:

- 1) Installation of secondary seals and sleeves on the gauge column on low volatile tanks to reduce the tank emission
- 2) FRE CDU/VDU modification for increasing CIT, replacement of rotary APH in CDU , Conversion of natural draft to balance draft furnace in VDU, VDU Hot Well off gas firing
- 3) Increasing furnace preheat to increase CIT in SEU furnaces
- 4) Replacement of GRP fan blades with hollow FRP energy saving fan blade assembly in 3 no's of CT cells for power reduction
- 5) Recovery of the flare gas and utilization of gas in furnaces
- 6) Implementation of Propane gas recovery system in LR (1st stage)

- 7) Usage of Energy efficient LED tube lights & Down lights
- 8) Anti-foulant injection to crude preheat exchangers in FRE
- 9) Leak Detection Survey for fugitive emission benchmarking
- 10) Compressed Air leaks Audits & Steam leak Audits

Visakh Refinery:

- 1) Periodic on-line cleaning of furnaces in process units to improve operating efficiencies.
- 2) Periodic cleaning of fouled heat exchangers in process units.
- 3) Replacement of turbine drives for Main Air Blower & Wet Gas Compressor with motors in FCCU-II.
- 4) Anti-foulant injections to crude preheat exchangers.
- 5) Deployment of hydrokinetic decoking in furnaces in the place of steam-air decoking.
- 6) Implementation of condensate recovery schemes in CDU-II and FCCU-II.
- 7) Periodic steam leak and steam trap surveys.

4.3.12 BEML Limited (BEML)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) One portable air compressor of 4 KW in place of 55 KW capacity motor has been replaced to meet the requirement of heat treatment shop furnaces.
- 2) Introduction of 2 nos. 5000 litres capacity solar water heating system in Workers Canteen for pre-heating of water at 60 degree centigrade
- 3) Replacement of inverter welding sets (18 KW) in place of old type Kirloskar make Motor Generator welding set of 30 KW
- 4) Introduction of s150 W metal halide high bay fitting for street lights in place of 800 W HPMV lamps at various places in the unit premises
- 5) Reduction of HSD generation by optimizing utilization of grid power
- 6) Usage of CFL lamps in the production area and in office building
- 7) Availing wheeling power wherever possible to maximum extent so that considerable amount is saved in electricity bill

- 8) Providing programmable timer to switch off shop lights and air circulator/man cooler fans during idle hours like coffee/tea/lunch breaks to eliminate idle use
- 9) Providing float switch/water level controller for overhead tank and water cooling towers to avoid overflow/spillage of water and unnecessary running of pumps
- 10) Providing new type T5 tube lights in selected places which results in min. 25% energy saving as well 10% more light for the same power output

4.3.13 Mishra Dhatu Nigam Limited (MIDHANI)

The details of energy consumption of the company are as under:

Energy Consumption per unit of output			
Energy Input	2010-11	2009-10	2008-09
(1)	(2)	(3)	(4)
LPG (MT of LPG consumed/ MT of production)	0.26	0.3	0.26
Electricity (Kwhrs/MT of production)	2332	2682	2744

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

- 1) Reduction in Boiler House furnace oil consumption by using mechanical pumps for vacuum generation for VIR furnace.
- 2) Replacement of brick work of reheating furnace with ceramic blankets making it more fuel efficient

4.3.14 Steel Authority of India Limited (SAIL)

The details of major energy conservation taken during the year 2010-11 by the company mentioned below:

- 1) Change of coking coal blend with higher indigenous coal usage due to Force majeure by Australian Coal companies from Dec'10 onwards.
- 2) Flooding of pump house feeding water to blast furnaces resulted in stoppage of BF's at BSL in Aug'10

4.3.15 National Aluminium Company Limited (NALCO)

Various energy conservation measures that have been adopted for optimal utilization of energy resources in different units of the Company during the year 2010-11

are mentioned below:

Bauxite Mines

- 1) Replacement of inefficient separately excited brush type DC Motor and corresponding DC variable speed drive of Apron feeder 2 Stream 1 of Primary Crusher and Conveying System with energy efficient and technically advanced AC induction motors and variable frequency drive.
- 2) Use of energy efficient T5 tube light fixtures and CFL lamps instead of T8/T12 tube lights and incandescent bulbs made mandatory in all the new construction in all the office and plant buildings. So far covered 20% of the plant buildings in 2009-10.

Alumina Refinery

1. Rain water from roof of settler, washer, 06, 07 and 08 building have been diverted to storm water drain thus reducing steam consumption with potential of saving 2000ton/year coal.
2. Replacement of earlier 7 stage BFP with energy efficient 6 stages BFP Boiler 4. Reduction in current 15 amps, thus KW consumption of 145 KW.
3. Regeneration of activated alumina bed in three air driers by using heat of compression from existing compressors. This has resulted in electric energy saving by about 60KW.
4. Installation of isolation valves across the Old PRDS: This has restricted the unnecessary steam passing and resulting increase in Power generation by about 2.5MW.
5. One cooling water pump is running in place of two pumps for each pair of evaporation batteries, thus saving 300KW electric power.
6. Installation of Energy meters for monitoring and control of area wise consumption: The energy consumption data inventory for all the important areas have been started for working out targets of specific consumption for effective control.
7. The discharge water of 100T VAM (two nos.) has been diverted to respective condensate storage tanks resulting in saving of DM water to tune of 700Tons per annum.
8. Trevi test for safety valve floating: During the year 056 units were taken under shut-down for overhauling. In all these units TRevi Test method was used for testing the boiler safety valves. This resulted in saving of 100 KL (approx.) fuel oil.

4.3.16 Indian Rare Earth Limited (IREL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Replacement of old process equipment's with new

technology equipment's, use of FBD in place of conventional rotary drier, use of geared dumpers in place of plate dumpers in ID fans.

2. Installation and maintenance of capacitor banks, replacement of old reflectors with good quality reflectors, replacement of incandescent lamps/HPMV lamps with energy efficient metal halide/HPSV lamps/LED lamps, use of energy efficient motors in critical areas.
3. Process equipment and flow sheet modification to optimize no. of equipment's.
4. Thermal insulation for hot sand carrying chutes.
5. Staggered operation of plants based on the availability of raw sand.
6. Periodical replacement of filter cloths.
7. Continuous monitoring of moisture in feed to all dryers and reduction of sand temperature in dryers.

4.3.17 Bharat Petroleum Corporation Limited (BPCL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

Mumbai Refinery

1. Higher crude intake in the heat integrated energy efficient CDU-3 during the year 2010-11.
2. Replacement of Air-preheater in three CDU furnaces resulting in fuel saving due to heat recovery.
3. Injection of water in crude feed to DCU-1 resulting in an increase of 6-7C in the crude pre-heat.
4. Undertaken project of "Zero steam leak" in CDU-1 resulting in saving of 65 MT/day of steam.
5. Installation of variable frequency drive motors in FD fan of B1 and NB2A furnaces of CDU-1 resulting in power saving.
6. Replacement of five motors/pumps in CDU-1 / FPU with higher efficiency equipments.

Kochi Refinery

1. Re-boiler steam optimization in propylene recovery unit.
2. Steam optimization in CDU-2 Sour Water Stripper Unit, during low sulphur crude processing.
3. Commissioning of variable frequency drive(VFD) for lean solvent pump.
4. Automatic Combustion Control for charge heater in old Vacuum unit.

5. Routing excess fuel gas from diesel hydrodesulphurization (DHDS) charge heater to reformer heater.
6. Additional condensate recovery VR/Plant fuel Tank Farm.

Fuel saving as a result of the energy conservation measures implemented in the refineries during the year 2010-11 corresponds to a total savings potential of over 400 tons of fuel oil equivalent.

4.3.18. Chennai Petroleum Corporation Limited (CPCL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. FCCU capacity was enhanced by installation of air compressor to augment air requirement, in addition to MAB. Feed rate increased from 125 to 135 M3/Hr.
2. OHCU capacity was enhanced by removing the product stripper bottleneck. Feed rate increased from 250 to 275 M3/Hr.
3. Fuel gas interconnection between Ref-II and cogen boilers was commissioned and thus reduced flaring of excess Fuel Gas.
4. Conventional heat exchanger tubes were replaced with hyflux tubes in the re-boilers of PRU.
5. Mineral wool insulation of VVHP steam lines in Cogen boilers was replaced with calcium silicate insulation in October 2010 to minimize heat loss.
6. Compressed air leak survey (Phase-I Identification of leaks) was carried out and identified leaks were attended.
7. Acoustic emission leak survey was carried out in safety valves with VPAC instrument in process units and identified leaking valves were attended.
8. 100 numbers of conventional tube lights were replaced with LED lights in Ref II and Ref III electrical substations.
9. Out Bound Steam Generation (OBSG) of CCR was taken online. Increase in steam generation of around 3 to 4 MT/Hr is observed.
2. Optimization of Bleed Valve operation and SoLoNox mode Operation of Gas Turbines: Re-tuning of Bleed valve and SoLoNox mode operation in the Solar Gas Turbines installed at GPU Gandhar resulted in reduction in specific fuel of approximately 1.09 MMSCM in a year which translates to saving of `92 Lacs during the year.
3. Utilization of improved Molecular Sieves in Feed Gas Dryers : The usage of technologically improved Molecular Sieves in Feed Gas dryer at GPU Gandhar has resulted in saving of fuel gas consumption on account of reduction in dryer regeneration cycle from 12 hrs to 36 hrs. This has resulted in reduction in natural gas consumption as fuel of approximately 0.52 MMSCM in a year which translates to saving of 144 lacs during the year.
4. Implementation of Automatic blow down system: An Automatic blow down system has been implemented in Heat Recovery Steam Generator at GPU Pata which has resulted in reduction of blow down quantity by online monitoring of TDS levels. This has further led in reduction of natural gas consumption as fuel of approximately 0.18 MMSCM in a year which translates to saving of `17 lacs during the year.
5. Modification done in lighting system: The conventional lighting systems HPMV/T8/GLS are being replaced by more energy efficient Metal Halide T5/1CFL lighting systems across GAIL installations.
6. Commissioning of Revamped BOG compressor: Revamped BOG compressor#2 was commissioned in Nov110 at Petrochemical plant. The diversion of boiled off gases directly to downstream polymer plant has resulted in saving of 762 MT of VHP steam which has resulted in saving of about `7.46 lacs in 5 months.
7. Switching form TEG power to Grid Power at Remote RR Stations: with improved availability of reliable grid power at remote locations of RR stations across JLPL pipeline, the requirement of electricity for RR stations is being met by providing grid power instead of reliable but less efficient supply source of TEG/CCVT. This has resulted in saving of approximately `17 lacs during the year.

4.3.19. Gas Authority of India Limited (GAIL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Power generation through Wind Energy: The power generated from the Wind Energy Project of 4.5 MW installed in Gujarat is wheeled for use in the plants situated in Gujarat. The power generated by the wind energy project last year was 7,800 MWh. This 'green' initiative has resulted
8. Close Loop Sampling of Hydrocarbons: Close Loop Sampling system has been installed at GPU Usar to avoid venting of Hydrocarbons into the atmosphere. This has resulted in saving of approximately `2 lacs worth of Hydrocarbon

in a year besides contributing to reduction in global warming efforts due to lower green-house gas emissions.

4.3.20. Brahmaputra Valley Fertilizer Corporation Limited (BVFCL)

1. Energy consumption in Namrup-II was brought down from 17.43 Goal/MT to 15.76 Goal/MT due to attending tube leakages of coolers and condensate and running plant on sustained load.
2. Energy consumption of Namrup III 2010-11 was higher as compared to 2009-10 due to low production caused by NG limitation, lower conversion rate in Synthesis converter, liner leakage in Urea reactor, tube leakage of RG Solar and other machine breakdowns.
3. The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:
4. In-situ replacement of tubes of intercoolers and bypass cooler of NG Booster Compressor, tubes of Mathanated Gas Cooler, tubes of condensers of Process Refrigeration Compressor in Ammonia III Plant has been replaced. In Ammonia II plants, tubes of surface condenser of process Air compressor and tubes of coolers and condensers of Process Refrigeration compressor were replaced. These measures have resulted in considerable saving in energy.
5. Vacuum system of turbines of Compressors and Pumps were chocked and attended.
6. The waste exhaust steam from turbines of ID Fans and FS Fane of saving Boiler of Namrup-II has been utilized fruitfully as desertion steam in Do-aertor. This has led to 3 MT/hr savings of process steam.
7. The condensate drained from Hydrolyser in Urea II plant is being reused as DM water or boiler feed water.
8. Around 10 MT/Hr. of LP steam was getting venlod Ammonia III Steam loop. This is being now being used as deasration steam in De-aerator of servive boiler and waste Heat Boilers in Captiva Power Plant.

4.3.21. Madras Fertilizers Limited (MFL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

Ammonia Plant

1. Methanator Catalyst was renewed with Super-Methanation catalyst (temperature got reduced from 320C to 265C)

2. Process Air Compressor (K1602): LP Case Rotor along with labyrinth seal was replaced (Steam consumption came down to 24 MTPH from 29 MTPH with a savings of 5 MTPH)
3. Process Condensate Boiler Air Pre-heater tubes (780 tubes) were replaced (steam generation increased to 57 MTPH from 49 MTPH)

Urea Plant

First Decomposer (E162) partial re-tubing was carried out which resulted in a savings of 3 MTPH steam.

4.3.22. Bharat Electronics Limited (BEL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Replacement of old low efficient chillers in AC Plants with Energy Efficient screw for meeting variable cooling load demand.
2. Incorporation of variable frequency drives for AHU's cooling towers and centrifugal pumps.
3. Replacement of old AC units with energy efficient 5 star rated split air conditioners and optimization of Air conditioning area at buildings.
4. Optimizing compressed air system operation through decentralized compressed air systems.
5. Optimization of pressure settings at Nitrogen Separation Plant and Air Compressor Plants.
6. Incorporation of lighting Management system and day light harvesting.
7. Provision of wind driven roof ventilations in place of conventional electrical exhaust systems.
8. Incorporation of energy efficiency standards in specifications during the procurement stage.
9. LED light fittings for streetlights.
10. Optimizing loading of process equipment and test chambers.

4.3.23 Cochin Shipyard Limited (CSL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Replacement of old and damaged window air conditioning units with energy efficient star rated split AC units.
2. Leakages in the compressed air distribution system and other industrial gas lines are regularly monitored and rectified.
3. Renewal of damaged service line pipes in phased manner.
4. portable compressors were installed a t various load centers to provide compressed air at desired pressure, thereby eliminating pressure loss in lines

- and optimizing the usage of main air compressors, which are major energy consumers.
- 5. provided safety relays at the primary side of welding sets for controlling the switching ON of the sets thereby eliminating the no load losses and ensuring safety of operating personnel.
- 6. Rain water harvesting for industrial purposes thereby reducing the use of metered water and operation of water pumps.
- 7. Switching off power supply to the areas where there is no emergency requirement during lunch interval.
- 8. Power factor is continuously monitored and maintained near to unit pf.
- 9. Displayed energy saving stickers. Conducted seminars and quiz competitions for inculcating awareness among employees for energy conservation aimed at optimum use of electric power.
- 10. Providing turbine ventilators in local substations and shops in the yard.

4.3.24. Garden Reach Shipbuilders & Engineers Ltd. (GRE)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

The yard continued its endeavor to conserve the energy. Through energy audit conducted in all the units of the shipyard in Kolkata, we continued to optimize consumption of energy i.e., coal, electricity, petroleum etc. Power factor of the system was consistently maintained at optimal level, Steps taken toward energy consumption are as below:

1. Use of Bureau of energy Efficiency accredited star rated window air conditioners have been adopted in the yard extensively.
2. In centralized package type air conditioning plants, solid state control system and state of the art energy efficient compressors were introduced.
3. In elevators VVVF control system has been used to reduce energy consumption by 2%
4. Use of metal roof sheeting in shops has been adopted.
5. Solar water heater has been installed for Canteen to conserve electricity.
6. Measures like introduction of battery operated material handling equipments.
7. Increased installation of electronic blasts, LED lamps, TL3 Fluorescent Lamp, extensive use of CFL.

8. Minimization of distribution loss in compressed air and water supply system etc.
9. Maximum use of translucent sheets in shop floors.

4.3.25 Hindustan Shipyard Ltd. (HSL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Reduction of lighting to optimum levels.
2. Replacement of old lighting with energy efficient CFL lamps.
3. Replacement of old plant and machinery with new energy efficient systems like VVVF drives, inverter technology welding machines etc.
4. Replacing of old air conditioners with BEE certified star rated appliances.
5. Running of heavy loads like Air compressors are restricted to minimum.
6. Replacement of old welding machines with new welding machines including energy saving units.
7. Operation of Distribution transformers around 70% loading by turning off during OFF peak hours.
8. Switching off plant & machinery when not in use.
9. Replacement of old switchgear & PILCA cable with suitable capacity XLPE cables and new switchgear etc.

4.3.26 Hindustan Paper Corporation Limited (HPCL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Replacement of conventional asbestos sheets in paper machine by transparent sheets to reduce light load in day time.
2. Reduction of RPM of two nos. of SBL transfer pumps no.461-04 & 461-03.
3. Installation of Solar heating system to replace 10 nos. of geyser in Guest House.
4. Fitting of mechanical seal in ESCW Pump-1
5. Replacement of 2 nos. aerators with energy efficient aerators.
6. Recycling of control room AC water and pump sealing / cooling water.
7. Fitting of Energy Efficient Steam traps in Primary and Secondary air pre heaters condensate line of Recovery Boiler.

8. Replacement of 300 nos. TFL by CFL/LED at Control Room, office, street light.
9. Use of excess paper Machine back water and outlet of AC Cooling for wash spray of Alkali Extraction washer.

4.3.27 National Textile Corporation Limited (NTCL)

The details of major energy conservation taken during the year 2010-11 by the company are mentioned below:

1. Taken up energy and re-engineering study with the help of consultants. By implementing the

recommendations, the Corporation would save a sufficient quantum of energy:

2. High rated motors have been replaced with appropriate low rated motors:
3. Provisions of inverters made for optimum running of motors:
4. Maximum demand of the units has been suitably revised: and
5. Action has been taken to reduce the sanctioned load in the units wherever necessary.

Annex 4.1

Cognate Group-Wise Pattern of Energy Conservation

S.No	Cognate Group	Total Cost on Energy Consumption (Rs in crore)		Energy Cost as percentage of total cost (Rs in crore)	
		31.3.11	31.3.10	31.3.11	31.3.10
1	Agro Based Industries	7.67	7.31	0.87	1.12
2	Chemicals & Pharmaceuticals	152.48	60.51	8.93	6.74
3	Coal & Lignite	1865.49	1955.72	4.86	5.52
4	Consumer Goods	478.50	463.34	10.34	9.71
5	Contract & Construction Services	190.75	172.60	1.63	1.54
6	Crude Oil	191.00	167.86	0.55	0.55
7	Fertilizers	3095.61	2405.76	20.65	17.64
8	Financial Services	6.42	6.57	0.20	0.36
9	Generation	35744.00	29718.40	67.94	72.98
10	Heavy Engineering	467.41	420.82	1.34	1.44
11	Industrial Development & Tech.Consultancy Services	29.36	21.23	0.40	0.36
12	Medium & Light Engineering	137.69	123.97	1.05	0.83
13	Other Minerals & Metals	2284.40	2006.34	20.36	21.75
14	Petroleum (Refinery & Marketing)	2234.93	2198.81	0.31	0.38
15	Steel	4206.69	3751.37	8.71	9.46
16	Telecommunication Services	2438.90	2036.58	7.87	6.49
17	Textiles	115.67	92.03	10.62	12.94
18	Tourist Services	41.45	36.69	3.75	3.64
19	Trading & Marketing	52.65	33.06	0.03	0.02
20	Transmission	71.80	61.69	3.82	3.67
21	Transport Services	8205.97	6926.42	29.98	26.40
22	Transportation Equipment	207.84	195.94	0.83	0.91

Note * Energy implies expenditure on 'Power & Fuel'

International Operations of CPSEs

The CPSEs are increasingly into 'international trade' in goods and services, which has a bearing on the Balance of Payments of the country. During the year 2010-11, as many as 140 CPSEs out of the 220 operating CPSEs either had foreign exchange earnings (FEE) or foreign exchange expenditure (FEE) (Annex 5.1). As many as 39 CPSEs were net foreign exchange earners (Annex 5.1). Out of these 39 CPSEs, 10 CPSEs, namely, ONGC Videsh Ltd., Air India Ltd., National Aluminium Company Ltd., Airports Authority of India Ltd., Bharat Heavy Electricals Ltd., Shipping Corporation of India Ltd., Kudremukh Iron Ore Company Ltd., IRCON International Ltd., Cochin Shipyard Ltd. and RITES Ltd. earned net foreign exchange of more than ₹ 200 crore during 2010-11.

5.1 Foreign Exchange Earnings

Table 5.1 below shows the (15) CPSEs that had gross foreign exchange earnings of more than ₹ 1000 crore, during 2010-11. Out of these fifteen CPSEs namely, Air India, BHEL, ONGC Videsh, NALCO, SCIL, IRCON International Ltd, and Airport Authority of India Ltd have been net foreign exchange earners. Hindustan Petroleum Corpn. LTD and P E C LTD have shown reduction in their foreign exchange earnings during 2010-11. The remaining CPSEs have had foreign exchange expenditure more than their foreign-exchange earnings. This is particularly so in the case of Oil Marketing Companies (OMCs).

Table 5.1
Gross Foreign Exchange Earnings of select CPSEs
(more than ₹1000 crores)

(₹ In crores)

Sl.No.	CPSE	2010-11	2009-10	Change over the previous year (%)
1	INDIAN OIL CORPORATION LTD.	16967.55	13743.45	23.46
2	MANGALORE REFINERY & PETROCHEMICALS LTD.	14603.16	11041.89	32.25
3	BHARAT PETROLEUM CORPN. LTD.	12380.37	10301.35	20.18
4	BHARAT HEAVY ELECTRICALS LTD.	9226.00	8263.42	11.65
5	AIR INDIA Ltd.	7065.70	5622.37	25.67
6	ONGC VIDESH LTD.	5872.04	5068.54	15.85
7	HINDUSTAN PETROLEUM CORPN. LTD.	5522.8	6382.26	-13.47
8	OIL & NATURAL GAS CORPORATION LTD.	4711.55	4587.1	2.71
9	SHIPPING CORPORATION OF INDIA LTD.	3736.53	3605.42	3.64
10	MMTC LTD.	3707.62	3247.33	14.17
11	NATIONAL ALUMINIUM COMPANY LTD.	2109.19	2075.04	1.65
12	IRCON INTERNATIONAL LTD.	1545.13	1261.04	22.53
13	AIRPORTS AUTHORITY OF INDIA LTD.	1209.12	1009.76	19.74
14	P E C LTD.	1065.26	1105.82	-3.67
15	AIR INDIA Charters Ltd.	1060.01	942.82	12.43

5.1.1 Sources of Foreign Earnings

Export of goods & merchandise, income from Royalty & Consultancy Services and interest earnings are the major sources of foreign exchange earnings. Export of

merchandise was the major source of foreign exchange earnings in both the years 2009-10 and 2010-11. Its share in total earnings, however, decreased from 89.08% of the total in 2009-10 to 88.40% of the total in 2010-11 (Table 5.2).

Table 5.2
Foreign Exchange Earnings of CPSEs
(2010-11 and 2009-10)

(₹ in crore)

Sl. No	Items	2010-11	2009-10	Change over the previous year (%)
(i)	Export of Goods on FOB basis	85747.54 (88.40)	75026.75 (89.08)	14.29
(ii)	Royalty, Know-how, Professional and Consultancy fee	1462.01 (1.51)	1309.21 (1.55)	11.67
(iii)	Interest and Dividend	189.80 (0.20)	145.35 (0.21)	30.58
(iv)	Other Income	9604.83 (9.90)	7742.73 (9.19)	24.05
	Grand Total (i) to (iv)	97004.18 (100.0)	84224.04 (100.00)	15.17

Note: Figure in brackets are as percentage of total

5.2 Foreign Exchange Expenditure

Table 5.3 shows the (26) CPSEs that had gross foreign exchange expenditure more than Rs. 1000 crore during 2010-11. In terms of growth / change in foreign exchange expenditure during 2010-11 over 2009-10, there was a significant increase in foreign expenditure in the case of MMTC Ltd., Handicrafts & Handloom Exports Corporation

of India Ltd, GAIL (INDIA) LTD, and Oil & Natural Gas Corporation Ltd. In the case of other CPSEs, like MSTC Ltd., ONGC Videsh Ltd., Shipping Corporation Of India Ltd., Power Grid Corporation of India Ltd., Bharat Electronics Ltd. and Rashtriya Chemicals and Fertilizers Ltd, on the other hand, there was a general reduction in the foreign exchange expenditure.

Table 5.3
Gross Foreign Exchange Expenditure of select CPSEs
(more than ₹ 1000 crore)

(₹ in crore)

Sl. No.	CPSE Name	2010-11	2009-10	Change over the previous year (%)
1	INDIAN OIL CORPORATION LTD.	171424.79	132895.8	28.99
2	M M T C LTD.	60132.62	40694.33	47.77
3	BHARAT PETROLEUM CORPN. LTD.	52221.91	43505.35	20.04
4	OIL & NATURAL GAS CORPORATION LTD.	37115.4	20769.63	78.7
5	MANGALORE REFINERY & PETROCHEMICALS LTD.	30736.24	26329.72	16.74
6	HINDUSTAN PETROLEUM CORPN. LTD.	30293.16	29502.37	2.68
7	CHENNAI PETROLEUM CORPORATION LTD.	26317.28	21190.34	24.19
8	STATE TRADING CORPN. OF INDIA LTD.	19515.8	17606.74	10.84
9	STEEL AUTHORITY OF INDIA LTD.	15670.35	14142.02	10.81
10	HINDUSTAN AERONAUTICS LTD.	11494.83	10519.93	9.27
11	P E C LTD.	8631.63	8612.3	0.22
12	BHARAT HEAVY ELECTRICALS LTD.	8565.27	7736.15	10.72
13	AIR INDIA LTD.	5288.58	8267.10	-36.03
14	HANDICRAFTS & HANDLOOM EXPORTS CORP. OF INDIA LTD.	4914.01	1539.94	219.1
15	RASHTRIYA ISPAT NIGAM LTD.	4490.4	3565.24	25.95
16	GAIL (INDIA) LTD.	4060.86	2163.44	87.7
17	M S T C LTD.	3463.38	4298.55	-19.43
18	ONGC VIDESH LTD.	3313.43	4293.29	-22.82
19	SHIPPING CORPORATION OF INDIA LTD.	3103.92	3576.33	-13.21
20	POWER GRID CORPORATION OF INDIA LTD	1987.62	7083.5	-71.94
21	BHARAT ELECTRONICS LTD.	1875.1	2145.74	-12.61
22	MAZAGON DOCK LTD.	1796.87	1765.54	1.77
23	NTPC LTD.	1596.48	1419.16	12.49
24	AIR INDIA CHATERED LTD.	1214.40	919.58	32.06
25	IRCON INTERNATIONAL LTD.	1117.52	9969	-88.79
26	RASHTRIYA CHEMICALS AND FERTILIZERS LTD.	1039.03	1583.31	-34.38

There was a big increase in foreign expenditure of Handicrafts & Handloom Exports Corpn. of India Ltd. during 2010-11 due to increased trading in bullion. The Oil Marketing Companies (IOCL, BPCL, MRPL, CPCL, ONGC and GAIL) and others, namely, MMTC, SAIL, BHEL, RINL, SCI, BEL, HHEC, NTPC also incurred increase in gross foreign exchange expenditure during

2010-11. 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' have been the major items of foreign exchange expenditure in both the years.

Table 5.4
**Items of Foreign Exchange Expenditure of all CPSEs
(2009-10 and 2008-09)**

(₹ in crore)

	Particulars	2010-11 (%)	2009-10	Change over the year
(a)	Imports (CIF Basis)			
	Raw materials/Crude oil	408738.12 (90.03)	339408.88 (91.27)	20.43
	Stores, Spares & Components	15908.26 (3.50)	10782.11 (2.90)	47.54
	Capital Goods	29377.34 (6.47)	21678.01 (5.83)	35.52
	Sub Total (a)	454023.72 (86.88)	371869.00 (87.66)	22.09
(b)	Expenditure on account of :			
	Royalty and Consultancy fee	11824.03 (17.25)	12301.24 (23.50)	-3.88
	Interest payment	2019.08 (2.95)	1788.96 (3.42)	12.86
	Others	54709.92 (79.81)	38247.62 (73.08)	43.04
	Sub Total (b)	68553.03 (13.12)	52337.82 (12.34)	30.98
	Grand Total (a + b)	522576.75 (100)	424206.82 (100)	23.19

Note: Figure in brackets are as percentage of total

The share of 'raw materials' / crude oil continued to claim the largest share (around 90%) of gross foreign exchange expenditures in both the years of 2009-10 and 2010-11. 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

International finance refers mainly to external commercial borrowings, supplier's credit, funds raised through the equity market abroad. Shares of MTNL (ADR) are listed on the New York Stock Exchange and GAIL (GDR) and SAIL (GDR) are listed on the London Stock Exchange. Funds raised by CPSEs in the form of secured and unsecured loans (more than ₹ 500 crore), during 2010-11 are shown at Annex -5.2.

5.3.2 Foreign Investments by CPSEs

Investment comprise off-shore investment by CPSEs through establishment of Indian subsidiaries abroad joint ventures (JVs) and mergers and acquisitions (M&A). Several CPSEs have set up subsidiaries abroad for marketing their products, procuring raw materials and consolidating their international operations. ONGC Videsh, in particular, has been successful in acquiring oil and gas assets abroad. As on 31.3.2011, OVL has participation directly or through wholly owned subsidiaries/ J.Vs in 33 exploration and production projects in 14 countries, comprising 9 producing assets, 4 assets under development and 19 exploration assets. During 2010-11, the company produced 9.45 MMTOE, which accounted for 10.5 percent of India's total domestic oil and gas production. The other CPSEs are following the lead given by OVL in international investments. SAIL, CIL, RINL, NMDC and NTPC have together formed a JV in International Coal Ventures Pvt Ltd. for acquisition of coal assets abroad.

5.3.2.1 Policy on Acquisition of Raw Materials Overseas.

Availability of adequate quantities of raw materials is a pre-requisite for growth. There is also a strategic perspective as some countries have already taken the lead in acquiring sources of raw material assets globally. Overseas investments are currently undertaken by CPSEs either under powers delegated to their Boards or with the approval of CCEA through the mechanism of Empowered Committee of Secretaries (ECS). Shortcomings in the present system include delays in decision making, lack of coordinated & inter-sectoral approach and absence of government funding.

On the basis of recommendations of the National Manufacturing Competitiveness Council (NMCC), inter-ministerial consultations and approval of the Cabinet, DPE has notified the Policy for acquisition of Raw Material assets abroad by CPSEs in October, 2011. The broad features of this Policy are as following.

Policy applicable to CPSEs in Agriculture, Mining, Manufacturing and Electricity sectors having a three year record of making net profits.

CPSEs to examine proposals, undertake due diligence and obtain approval of Board of Directors in a transparent manner.

Powers delegated to the Boards of Maharatna and Navratna proposed to be enhanced and enhanced powers available only for acquisition of raw material assets abroad.

Coordinating Committee of Secretaries (CCoS) headed by the Cabinet Secretary to be constituted. Proposals (i) where the administrative Ministry/CPSE requests for a coordinated view and (ii) involve Government funds to be put up before the CCoS.

CCoS to facilitate quick and coordinated decision making, coordinate grant of concessional credit to foreign enterprise/Government, recommend Government funding and decide about the nature of the Government funding on case to case basis.

The CCoS to be serviced by the DPE and separate cell to be created in DPE. DPE authorized to hire additional personnel, accommodation and procure equipments necessary for making this cell operational. Additional annual budgetary outlay of Rs. 1.5 crore per annum to be provided to DPE.

CPSE/Ministry to submit proposal to the DPE which will convene a meeting of the CCoS. CPSE/Ministry to nominate a nodal officer.

Recommendations of CCoS to be placed before CCEA by the DPE.

Existing Empowered Committee of Secretaries (ECS) mechanisms shall continue to function. Ministries presently not having ECS proposed to be authorized to have appropriate ECS mechanism.

The Ministry of External Affairs and its Missions abroad to be associated right from the beginning of the process.

The Government to, in due course, consider constituting a dedicated, Sovereign Wealth Fund.

5.4 International Operations of Select CPSEs:-

The paragraphs below discuss briefly the international operations of select CPSEs as top net foreign exchange earner or foreign exchange spender :

5.4.1 ONGC Videsh Limited (OVL)

Against a foreign exchange earnings of ₹ 5,872 crore during 2010-11, the foreign exchange outgo of the company stood at ₹ 3,313 crore. OVL, therefore, had a net foreign exchange earning of ₹ 2,559 crore during the year. OVL's consolidated production of Oil plus Oil-Equivalent Gas (O+OEG) increased from 8.870 MTOE in 2009-10, to 9.448 MMT in 2010-11, registering an impressive growth of about 6.5%. This records OVL's highest ever oil and gas production from its overseas assets.

5.4.2 National Aluminium Company Ltd. (NALCO)

Against a foreign exchange earnings of ₹ 2109 crore during 2010-11, the foreign exchange outgo of the company stood at ₹ 423 crore. NALCO, therefore, had a net foreign exchange earning of ₹ 1686 crore during the year. In line with its Corporate Plan and Vision 2020, the Company is actively considering the possibilities of setting up of Aluminium Smelter Plants in countries, where power is cheaply available.

The Company is exploring the possibility of setting up a 0.5 MTPA aluminium smelter and 1250 MW coal based captive power plant in East Kalimantan province in Indonesia at an estimated investment of USD 3.9 billion. Presently, the identification of the coal mining company with whom NALCO would enter into long term coal supply agreement is underway.

5.4.3 Bharat Heavy Electricals Ltd. (BHEL)

Against a foreign exchange earnings of ₹ 9,226 crore during 2010-11, the foreign exchange outgo of the Company stood at ₹ 8,565 crore. BHEL had, therefore, a net foreign exchange earnings of ₹ 661 crore during the year, the fifth highest among all the CPSEs. BHEL's operations are organised around three business sectors, namely, power, industry (including Transmission, Transportation, Telecommunication & Renewable Energy) and international operations. To expand International footprint, BHEL would be consolidating its presence in existing international markets, and also tapping opportunities in new markets. Focus would be on EPC opportunities, augmentation of EPC capabilities & gearing-up the organisation accordingly.

5.4.4 Shipping Corporation of India (SCI)

Against a foreign exchange earnings (FEE) of ₹ 3,737 crore during 2010-11, the foreign exchange outgo of the company stood at ₹ 3,104 crore. SCI is the sixth highest foreign exchange earner amongst all CPSEs after oil

marketing CPSEs. SCI also is the pioneering enterprise in its line of business, providing diversified services in almost all areas of sea transportation comprising, Bulk Carrier and Crude oil Tanker, Liner & Passenger Services, Lighterage and Container services, Technical and Off-Shore services etc.

5.4.5 Indian Oil Corporation Ltd. (IOCL)

Against a foreign exchange earnings of ₹ 16,968 crore during 2010-11, the foreign exchange outgo of the company stood at ₹ 1,71,425 crore. IOC had, therefore, the highest net foreign exchange expenditure of ₹ 1,54,457 crore during the year. IOC arranged to import 50.440 million tonnes of crude oil and 5.568 million tonnes of petroleum products during the year, amounting to ₹ 1,45,983 crore and ₹ 19,565 crore respectively to meet its requirements through a carefully selected and diversified mix of supply sources. Indian Oil also exported 4.988 million tonnes of petroleum and petrochemical products worth ₹ 16,781 crore during the year.

5.4.6 MMTC Ltd (MMTC)

Against a foreign exchange earnings of ₹ 3,708 crore during 2010-11, the foreign exchange outgo of the company stood at ₹ 60,133 crore. MMTC had, therefore, a net foreign exchange expenditure of ₹ 56,425 crore during the year. MMTC is the India's largest International Trading Company, and also the largest exporter of mineral. It is also the leading exporter / importer of agro commodities, the single largest importer / supplier of metals including Gold & Silver and a major player in the Coal and Hydrocarbons imports by the country.

The Company commands extensive market coverage in over 65 countries in Asia, Europe, Africa, Oceania and America etc. and currently holds the no. 1 rank amongst the trading companies of India.

5.4.7 State Trading Corporation Ltd. (STC)

Against a foreign exchange earnings of ₹ 386 crore during 2010-11 the foreign exchange outgo of the company stood at ₹ 19,516 crore. STC had, therefore, a net foreign exchange expenditure of ₹ 19,130 crore during the year. STC, a trading company, is the primary channelizing agency for meeting the demand-supply mismatch, deficits in the domestic economy. During the year, STC undertook a number of new initiatives to increase its business. These included exports of a number of new items like molasses to Amsterdam & South Korea, transport & construction vehicles to Benin and sesame seeds to Vietnam. It also re-started operations from its office at Bhopal to increase business in agro commodities. The Corporation continued to undertake import of pulses on Govt. directions for sale in the open market and also procured pulses and edible oils on behalf of state governments for distribution under PDS, thereby covering the weaker sections of the society. STC, for the first time, undertook imports of manganese ore. During the year, the Corporation obtained order for supply of 12 million MT of imported steam coal to NTPC for its various power plants spread across the country. It also signed an agreement with an overseas Government company for exports of tea under STC's own brand. Led by growth in bullion imports, moreover, the import turnover of STC reached an all time high of ₹ 18,938 crore.

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

S. No.	CPSEs	₹ in crores		
		FEE	FEU	Net FEE
1	ONGC VIDESH LTD.	5872.04	3313.43	2558.61
2	AIR INDIA LTD.	7065.70	5288.58	1777.12
3	NATIONAL ALUMINIUM COMPANY LTD.	2109.19	423.32	1685.87
4	AIRPORTS AUTHORITY OF INDIA LTD.	1209.12	192.66	1016.46
5	BHARAT HEAVY ELECTRICALS LTD.	9226.00	8565.27	660.73
6	SHIPPING CORPORATION OF INDIA LTD.	3736.53	3103.92	632.61
7	KUDREMUKH IRON ORE CO.LTD	694.94	180.38	514.56
8	IRCON INTERNATIONAL LTD.	1545.13	1117.52	427.61
9	COCHIN SHIPYARD LTD.	901.65	498.90	402.75
10	BITES LTD.	242.50	22.33	220.17
11	INDIAN RARE EARTHS LTD.	91.77	1.48	90.29
12	HINDUSTAN COPPER LTD.	64.71	8.85	55.86
13	BRAHMAPUTRA VALLEY FERTILIZER CORPN. LTD.	39.90	6.49	33.41
14	COTTON CORPN. OF INDIA LTD.	30.21	0.39	29.82
15	EdCIL(India) Ltd.	23.46	0.05	23.41
16	CENTRAL COTTAGE INDUSTRIES CORPN. OF INDIA LTD.	22.19	0.00	22.19
17	STCL LTD.	14.17	0.00	14.17
18	KARNATAKA ANTIBIOTICS & PHARMACEUTICALS LTD.	19.44	7.08	12.36
19	INDIAN RAILWAY CATERING AND TOURISM CORPN. LTD.	12.17	0.25	11.92
20	TELECOMMUNICATIONS CONSULTANTS (INDIA) LTD.	218.11	206.92	11.19
21	INDIA TOURISM DEV. CORPN. LTD.	14.12	6.69	7.43
22	EXPORT CREDIT GUARANTEE CORPN.OF INDIA LTD.	8.71	3.41	5.30
23	HMT (INTERNATIONAL) LTD.	8.74	3.73	5.01
24	BHARAT PUMPS & COMPRESSORS LTD.	42.79	37.97	4.82
25	HINDUSTAN INSECTICIDES LTD.	23.75	19.15	4.60
26	PROJECTS & DEVELOPMENT INDIA LTD.	4.49	0.93	3.56
27	BURN STANDARD COMPANY LTD.	3.53	0.00	3.53
28	MECON LTD.	6.18	2.98	3.20
29	NATIONAL FILM DEV. CORPN. LTD.	2.00	0.82	1.18
30	HINDUSTAN SALTS LTD.	1.03	0.00	1.03
31	WAPCOS LTD.	141.28	140.29	0.99
32	NATIONAL SEEDS CORPN. LTD.	0.74	0.00	0.74
33	SCOOTERS INDIA LTD.	0.72	0.00	0.72
34	CENTRAL WAREHOUSING CORPN.	1.07	0.44	0.63
35	ANDREW YULE & COMPANY LTD.	1.95	1.47	0.48
36	SAMBHAR SALTS LTD.	0.33	0.00	0.33
37	MAHANAGAR TELEPHONE NIGAM LTD.	3.73	3.45	0.28
38	BHARAT BHARI UDYOG NIGAM LTD.	0.11	0.00	0.11
39	TAMIL NADU TRADE PROMOTION ORGANISATION	0.06	0.02	0.04
40	NATIONAL JUTE MANUFACTURES CORPORATION LTD.	0.00	0.01	-0.01
41	BHARAT SANCHAR NIGAM LTD.	28.27	28.27	0.00
42	FCI ARAVALI GYPSUM & MINERALS (INDIA) LTD.	0.00	0.02	-0.02
43	HSCC (INDIA) LTD.	0.00	0.03	-0.03
44	BHARAT IMMUNOLOGICALS & BIOLOGICALS CORP. LTD.	0.00	0.06	-0.06
45	ENGINEERING PROJECTS (INDIA) LTD.	0.00	0.06	-0.06
46	ARTIFICIAL LIMBS MFG. CORPN. OF INDIA	0.07	0.17	-0.10

S. No.	CPSEs	₹ in crores		
		FEE	FEU	Net FEE
47	HMT LTD.	0.09	0.21	-0.12
48	BIECCO LAWRIE LTD.	0.00	0.32	-0.32
49	MINERAL EXPLORATION CORPN. LTD.	0.00	0.51	-0.51
50	MANGANESE ORE(INDIA) LTD.	0.00	0.60	-0.60
51	CERTIFICATION ENGINEERS INTERNATIONAL LTD.	0.25	0.86	-0.61
52	BHARAT COKING COAL LTD.	0.00	0.62	-0.62
53	CENTRAL COALFIELDS LTD.	0.00	1.63	-1.63
54	BRIDGE & ROOF CO.(INDIA) LTD.	10.54	12.23	-1.69
55	BHARAT PETRO RESOURCES LTD.	0.00	1.98	-1.98
56	HINDUSTAN PAPER CORPORATION LTD.	0.00	2.13	-2.13
57	BHARTIYA RAIL BIJLEE CO. LTD.	0.00	2.30	-2.30
58	HINDUSTAN ANTIBIOTICS LTD.	1.71	4.13	-2.42
59	POWER SYSTEM OPERATION CORPORATION LTD.	0.00	2.93	-2.93
60	GAIL GAS LTD.	0.00	3.44	-3.44
61	URANIUM CORPORATION OF INDIA LTD.	0.00	3.70	-3.70
62	CENTRAL MINE PLANNING & DESIGN INSTITUTE LTD.	0.00	4.15	-4.15
63	HINDUSTAN NEWSPRINT LTD.	0.00	4.25	-4.25
64	HOUSING & URBAN DEV. CORPN. LTD.	1.86	6.86	-5.00
65	NEPA LTD.	0.00	5.63	-5.63
66	BHARAT HEAVY PLATE & VESSELS LTD.	0.00	6.15	-6.15
67	INDIA TRADE PROMOTION ORGANISATION	11.94	21.88	-9.94
68	TEHRI HYDRO DEVELOPMENT CORP. LTD.	18.52	29.20	-10.68
69	BROADCAST ENGG.CONSULTANTS INDIA LTD.	7.23	17.92	-10.69
70	RAILTEL CORPORATION INDIA LTD.	0.00	10.71	-10.71
71	HINDUSTAN LATEX LTD.	51.26	62.64	-11.38
72	NHPC LTD.	278.34	291.79	-13.45
73	INDIA INFRASTRUCTURE FINANCE CO. LTD.	2.33	15.85	-13.52
74	BRAITHWAITE & CO. LTD.	0.00	14.62	-14.62
75	HINDUSTAN PHOTO FILMS MANUFACTURING CO. LTD.	0.00	14.72	-14.72
76	NORTH EASTERN ELECTRIC POWER CORPORATION LTD.	0.00	15.82	-15.82
77	MADRAS FERTILIZERS LTD.	0.00	19.35	-19.35
78	INSTRUMENTATION LTD.	0.22	21.19	-20.97
79	CENTRAL ELECTRONICS LTD.	6.24	27.47	-21.23
80	INDIAN RENEWABLE ENERGY DEVT.AGENCY LTD.	6.44	29.58	-23.14
81	BEL OPTRONICS LTD.	3.52	30.58	-27.06
82	MAHANADI COALFIELDLS LTD.	0.00	28.68	-28.68
83	WESTERN COALFIELDS LTD.	0.00	30.41	-30.41
84	RAJASTHAN ELECTRONICS AND INSTRUMENTS LTD.	0.04	31.49	-31.45
85	NATIONAL TEXTILE CORPN. (Holding Co.) LTD.	6.01	39.41	-33.40
86	DREDGING CORPN.OF INDIA LTD.	0.00	37.24	-37.24
87	CONTAINER CORPORATION OF INDIA LTD.	0.00	49.75	-49.75
88	HEAVY ENGINEERING CORPN. LTD.	0.00	49.91	-49.91
89	EASTERN COALFIELDS LTD.	0.00	51.24	-51.24
90	SJVN LTD.	7.38	67.25	-59.87
91	BALMER LAWRIE & CO. LTD.	23.54	98.21	-74.67
92	COAL INDIA LTD.	7.74	84.59	-76.85
93	RURAL ELECTRIFICATION CORPN. LTD.	0.00	82.28	-82.28
94	NMDC Ltd.	0.00	90.82	-90.82

S. No.	CPSEs	₹ in crores		
		FEE	FEU	Net FEE
95	NATIONAL FERTILIZERS LTD.	0.00	94.24	-94.24
96	NEYVELI LIGNITE CORPN. LTD.	0.00	97.95	-97.95
97	BHARATIYA NABHIKIYA VIDYUT NIGAM LTD.	0.00	103.90	-103.90
98	ANTRIX CORPORATION LTD.	80.77	192.46	-111.69
99	SOUTH EASTERN COALFIELDS LTD.	0.00	118.16	-118.16
100	NUMALIGARH REFINARY LTD.	0.00	122.17	-122.17
101	MISHRA DHATU NIGAM LTD.	0.00	140.80	-140.80
102	ENGINEERS INDIA LTD.	92.69	238.25	-145.56
103	AIR INDIA CHARTERS LTD.	1060.01	1214.40	-154.39
104	POWER FINANCE CORPORATION	0.00	166.03	-166.03
105	AIRLINE ALLIED SERVICES LTD.	1.92	186.75	-184.83
106	HINDUSTAN SHIPYARD LTD.	116.41	304.76	-188.35
107	NORTHERN COALFIELDS LTD.	0.00	216.48	-216.48
108	GOA SHIPYARD LTD.	0.16	217.21	-217.05
109	INDIAN RAILWAY FINANCE CORPORATION LTD.	0.00	224.32	-224.32
110	PAWAN HANS HELICOPTERS LTD.	123.76	379.40	-255.64
111	BHARAT DYNAMICS LTD.	1.51	263.18	-261.67
112	GARDEN REACH SHIPBUILDERS & ENGINEERS LTD.	0.00	277.21	-277.21
113	ELECTRONICS CORPN. OF INDIA LTD.	0.82	302.70	-301.88
114	OIL INDIA LTD.	1.56	333.74	-332.18
115	BRAHAMPUTRA CRACKERS & POLYMER LTD.	0.00	400.89	-400.89
116	BHARAT EARTH MOVERS LTD.	179.38	652.67	-473.29
117	SECURITY PRINTING & MINTING CORPN. INDIA LTD.	19.38	592.51	-573.13
118	FERTILIZERS & CHEMICALS (TRAVANCORE) LTD.	134.44	774.54	-640.10
119	I T I LTD.	0.00	730.54	-730.54
120	NUCLEAR POWER CORPN. OF INDIA LTD.	0.04	836.71	-836.67
121	RASHTRIYA CHEMICALS AND FERTILIZERS LTD.	0.74	1039.03	-1038.29
122	NTPC LTD.	1.12	1596.48	-1595.36
123	BHARAT ELECTRONICS LTD.	161.70	1875.10	-1713.40
124	MAZAGON DOCK LTD.	0.37	1796.87	-1796.50
125	POWER GRID CORPORATION OF INDIA LTD.	19.38	1987.62	-1968.24
126	M S T C LTD.	0.00	3463.38	-3463.38
127	GAIL (INDIA) LTD.	4.72	4060.86	-4056.14
128	RASHTRIYA ISPAT NIGAM LTD.	422.63	4490.40	-4067.77
129	HANDICRAFTS & HANDLOOM EXPORTS CORP. OF INDIA LTD.	27.71	4914.01	-4886.30
130	P E C LTD.	1065.26	8631.63	-7566.37
131	HINDUSTAN AERONAUTICS LTD.	237.39	11494.83	-11257.44
132	STEEL AUTHORITY OF INDIA LTD.	980.46	15670.35	-14689.89
133	MANGALORE REFINARY & PETROCHEMICALS LTD.	14603.16	30736.24	-16133.08
134	STATE TRADING CORPN. OF INDIA LTD.	385.72	19515.80	-19130.08
135	HINDUSTAN PETROLEUM CORPN. LTD.	5522.80	30293.16	-24770.36
136	CHENNAI PETROLEUM CORPORATION LTD.	113.28	26317.28	-26204.00
137	OIL & NATURAL GAS CORPORATION LTD.	4711.55	37115.40	-32403.85
138	BHARAT PETROLEUM CORPN. LTD.	12380.37	52221.91	-39841.54
139	M M T C LTD.	3707.62	60132.62	-56425.00
140	INDIAN OIL CORPORATION LTD.	16967.55	171424.79	-154457.24
	Grand Total:	97004.18	522576.75	-425572.57

Loan (secured & unsecured) raised abroad by CPSEs, 2010-11

S. No.	CPSEs	2 010-11			2009-10		
		Secured Loan	Un Secured Loan	Total	Secured Loan	Un Secured Loan	Total
1	BHARAT PETROLEUM CORPN. LTD.	0	10698.14	10698.14	0	6274.24	6274.2
2	CHENNAI PETROLEUM CORPORATION LTD.	183.93	1578.84	1762.77	197.52	646.54	844.06
3	COAL INDIA LTD.	0	1370.43	1370.43	0	1464.3	1464.3
4	HOUSING & URBAN DEV. CORPN. LTD.	0	704.85	704.85	0	705.83	705.83
5	INDIAN OIL CORPORATION LTD.	0	13665.75	13665.75	0	9412.55	9412.6
6	INDIAN RAILWAY FINANCE CORPORATION LTD.	147.34	6867.74	7015.08	162	4214.88	4376.9
7	INDIAN RENEWABLE ENERGY DEVT. AGENCY LTD.	0	1085.77	1085.77	0	690.79	690.79
8	NEYVELI LIGNITE CORPN. LTD.	0	856.54	856.54	0	839.86	839.86
9	NORTHERN COALFIELDS LTD.	0	739.5	739.5	0	789.97	789.97
10	NTPC LTD.	414.47	8919.59	9334.06	528.65	9825.19	10354
11	POWER FINANCE CORPORATION	0	4150.01	4150.01	0	1938.42	1938.4
12	POWER GRID CORPORATION OF INDIA LTD.	8843.2	3092.7	11935.89	9021	1796.01	10817
13	RASHTRIYA ISPAT NIGAM LTD.	0	676.75	676.75	0	0	0
14	RURAL ELECTRIFICATION CORPN. LTD.	0	7583.32	7583.32	0	2076.37	2076.4
15	SHIPPING CORPORATION OF INDIA LTD.	4501.7	0	4501.65	2379.4	0	2379.4
16	STEEL AUTHORITY OF INDIA LTD.	0	5593.63	5593.63	0	1814.38	1814.4
	Total:	14091	67583.56	81674.14	12289	42489.33	54778

(more than ₹ 500 Crore)

Organisational Structure and Human Resource Management

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.

Most of the CPSEs are commercial enterprises. CPSEs, such as, National Film Development Corporation, National Small Industries Corporation Ltd., National Scheduled Caste Financial Corporation and Handicrafts & Handloom Export Corporation India Ltd. etc. are, however, 'promotional' in nature. Similarly, Jute Corporation of India, Cotton Corporation of India and Food Corporation of India provide Minimum Support Price (MSP) to farmers.

The 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 enterprises. The Department of Public Enterprises (DPE), Government of India has been, furthermore, formulating guidelines in respect of organizational structure, wage and salary policy, executive development programme and corporate governance etc., which are applicable to all the CPSEs.

6.1 Organisational Structure of CPSEs

The Department of Public Enterprises formulate policy guidelines on the Board structure of Public Enterprises and advises on the shape and size of organizational structure of CPSEs. The CPSEs are categorized into four Schedules namely 'A', 'B', 'C' and 'D' based on 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 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 CPSE.

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 Public Enterprises Selection Board (PESB). During 2010-11, 4 CPSEs (Karnataka Antibiotics & Pharmaceuticals Ltd., THDC India Ltd., National Handloom Development Corporation Ltd. and National Seeds Corporation Ltd.) were upgraded to higher schedule. Furthermore, one Chief Executive of a CPSE (Hindustan Insecticides Ltd.) was given higher scale of pay on personal basis and 4 posts of Functional Directors were created i.e. Director (Corporate Planning & Personnel) and Director (Strategic Project) in Hindustan Shipyard Ltd. and Director-(Projects & Business Planning) and Director (Raw Materials & Logistics) in Steel Authority of India Ltd). During the period from April 2011 to December 2011, one CPSE (Hindustan Prefab Ltd.) was upgraded to higher schedule, one CPSE (Orissa Minerals Development Company Ltd.) was initially categorized, one post of Functional Director (Human Resource & Corporate Affairs) was created in Balmer Lawrie & Co. Ltd.) and one Chief Executive of a CPSE (Numaligarh Refinery Ltd.) was given higher scale of pay on personal basis.

Out of 250 CPSEs, as on 31.12.2011, there are 60 Schedule 'A', 71 Schedule 'B', 45 Schedule 'C', 4 Schedule 'D' and (remaining) 70 uncategorized CPSEs. The Schedule-wise list of CPSEs is at Annex-A.

6.2 Appointment of Functional Directors of CPSEs

Functional Directors including Chief Executives of 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 CPSEs and, in particular, to advise the 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 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 (corporate) 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, furthermore, streamlined the procedure for selection and appointment of Functional Directors on

the Boards of CPSEs. The procedure for confirmation and extension of term of Board level incumbents in CPSEs has already been streamlined and simplified by the Government.

6.2.1 CVC Clearance

The Government has also laid down the procedure for obtaining clearance of Central Vigilance Commission (CVC) in respect of selected candidates recommended by PESB for the posts of Chairman/Managing Director/CMD & Functional Director in CPSEs. It has been prescribed that CVC will grant its clearance (or otherwise) to the concerned Administrative Ministry/Department within 15 days of the receipt of recommendations of PESB.

6.3 Professionalization of Board of CPSEs

The Department of Public Enterprises (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 Board of Directors in CPSEs. The guidelines issued in 1992 provide 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 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

6.3.1 Appointment of non-official Directors

As regards selection and appointment of non-official Directors on the Boards of CPSE, the following eligibility criteria has been prescribed:-

6.3.1.1 Criteria of Experience

- (i) Retired Government officials with a minimum of 10 years experience at Joint Secretary level or above.
- (ii) Persons who have retired as CMD/CEOs of CPSEs and Functional Directors of the Schedule 'A' CPSEs. The ex-Chief Executives and ex-Functional Directors of the CPSEs will not be considered for appointment as non-official Director on the Board of the CPSE from which they retire. Serving Chief Executives/Directors of CPSEs will not be eligible to be considered for appointment as non-official Directors on the Boards of any CPSEs.

(iii) Academicians/Directors of Institutes/Heads of Department and Professors having more than 10 years teaching or research experience in the relevant domain e.g. management, finance, marketing, technology, human resources, or law.

(iv) Professionals of repute having more than 15 years of relevant domain experience in fields relevant to the company's area of operation.

(v) Former CEOs of private companies if the company is (a) listed on the Stock Exchanges or (b) unlisted but profit making and having an annual turnover of at least ₹ 250 crore.

(vi) Persons of eminence with proven track record from Industry, Business or Agriculture or Management.

6.3.1.2 Criteria of Educational Qualification

Minimum Graduate degree from a recognized university.

6.3.1.3 Criteria of Age

The 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.

The proposals for appointment of non-official Directors are initiated by the concerned Administrative Ministries/Departments. The selection of non-official Directors in respect of all CPSEs is made by the Search Committee which presently consists of Chairman (PESB), Secretary (DPE), Secretary of the administrative Ministry/Department of the CPSE, Chief Executive of the concerned CPSE (Maharatna/Navratna and Miniratna) and 4 non-official Members. The concerned Administrative Ministry/Department appoints the non-official Directors on the basis of recommendations of Search Committee after obtaining the approval of competent authority.

During the year 2011, the proposals for filling up 178 positions of non-official Directors on the Boards of various CPSEs were considered and suitable recommendations were conveyed to the concerned administrative Ministries/Departments.

6.4 Corporate Governance in CPSE

Keeping in view the importance of Corporate Governance principles in ensuring transparency and enhancing the trust of stakeholders, the Government had, in 2007, approved the Guidelines on Corporate Governance for CPSEs. These guidelines were formulated by DPE keeping in view relevant laws, instructions and procedures. After approval by the Cabinet, these Guidelines were released by the then Finance Minister on 22nd June,

2007. The Cabinet while approving the implementation of the Guidelines for an experimental phase of one year had directed that (i) any adjustments required in the Guidelines be made in the light of the experiences gained with the approval of competent authority; and (ii) mid-year progress reports be submitted by the CPSEs.

Since the issue of these Guidelines in June, 2007, the CPSEs have had the opportunity to implement them for the whole of the financial year 2008-09. It was felt that while the principles of Corporate Governance apply equally to both the public and private sector, there was a continued need to adopt and apply the good Corporate Governance practices in respect of CPSEs where huge public funds are invested. The continued need for adoption of good Corporate Governance principles has been reinforced in the light of recent events in the corporate world. Thus, it was decided to continue the Guidelines on Corporate Governance for CPSEs and after due inter-ministerial consultations, the proposal for introduction of Guidelines on Corporate Governance for CPSEs on mandatory basis was approved by the Government in March, 2010.

These Guidelines have now been made mandatory and are applicable to all CPSEs. The Guidelines cover issues like composition of Board of CPSEs, Audit Committee, Remuneration Committee, Subsidiary companies, Disclosures, Code of conduct and ethics, Risk management and reporting. The Guidelines have been modified and improved keeping in view the experience gained during the experimental phase of one year and includes additional provisions relating to monitoring the compliance of Guidelines by the CPSEs and formation of Remuneration Committee. Since, the concept of Corporate Governance is dynamic in nature, it has also been provided that suitable modifications in these Guidelines would be carried out to bring them in line with prevailing laws, regulations, acts, etc. from time to time.

The DPE has also taken the initiative to grade CPSEs on the basis of their compliance with Guidelines and has prescribed a format so that all CPSEs could furnish their self-evaluation reports. The salient features of these guidelines are as discussed below.

6.4.1 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 the Board; and the number of Government nominee Directors shall be restricted to a maximum of two. In case of listed CPSEs with an executive Chairman, the number of non-official Directors shall be at least 50% of Board members. In case of unlisted and listed CPSEs with a non-executive chairmen, 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. Relevant clauses have been incorporated in these guidelines

to ensure 'independence' of non-official Directors and avoid potential conflict of interest. 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 held in a year and all relevant information is 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 CPSE should undertake suitable training programmes for its new Board members.

6.4.2 Audit Committee

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

6.4.3 Subsidiary Companies

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

6.4.4 Disclosures

The provisions regarding disclosures require all transactions to be placed before the Audit Committee. The guidelines mandate that while preparing the financial statements, treatment 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 senior 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.

6.4.5 Compliance

It has also been mandated in the guidelines that Annual report of companies should contain a separate section on Corporate Governance with details of compliance. The CPSEs will have to obtain a certificate from auditors/company secretary regarding compliance with these

guidelines. Guidelines in Corporate Governance and will form part of the company's Annual Report. The CPSEs are required to submit quarterly compliance report to their administrative Ministries who will furnish consolidated annual report to DPE.

A new format for grading the CPSEs on the basis of their compliance with Guidelines on Corporate Governance has been prescribed, and all CPSEs have been requested to furnish self-evaluation reports in the prescribed format to their concerned Administrative Ministries/Departments on a quarterly basis. The concerned Administrative Ministries/Departments have been further requested to furnish consolidated annual score and grading in respect of all CPSEs under their administrative control to DPE.

6.5 Wages & Salary Policy in CPSEs

The Department of Public Enterprises (DPE) functions as the nodal Department inter-alia, in respect of policy relating to wage settlement of workmen, pay revision of non-unionized supervisors and executives holding posts below the Board level as well as at the Board level in CPSEs. The Department renders advice to the Administrative Ministries/Departments and the CPSEs in matters relating to the wage policy of workmen and revision in the scales of pay of the executives. The CPSEs are largely following Industrial Dearness Allowance (IDA) pattern scales of pay. In some cases Central Dearness Allowance (CDA) pattern scales of pay is followed. DPE also issues quarterly DA orders in respect of IDA employees. The DA orders for CDA employees are issued on six monthly periods.

6.5.1 Industrial Dearness Allowance (IDA)

Government policy relating to pay scales and pay pattern is that all employees of the CPSEs should be on IDA pattern and related scales of pay. Instructions had been issued by the DPE in July, 1981 and July, 1984 to all the administrative Ministries/Departments 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 have to be in IDA scales of pay. There were 248 CPSEs (excluding Banks and Insurance Companies) as on 31.03.20 under the administrative control of the Central Government. They employed 14.44 lakh workmen, clerical staff and executives. Out of this, around 96% of the workman and executives were on IDA pattern and related scales of pay.

6.5.2 Second Pay Revision Committee

As the periodicity of previous pay revision was coming to an end, the Second Pay Revision Committee (headed by Justice M. Jagannadha Rao, retired judge of

Supreme Court) was constituted vide Government of India Resolution dated 30.11.2006., for the revision of scales of pay of Board level and below Board level executives including non-unionized supervisors of CPSEs following Industrial Dearness Allowance (IDA) pattern scales of pay w.e.f. 01.01.2007. The Committee submitted its report to the Government on 30.05.2008. The Government, after due consideration of the recommendations of the Second Pay Revision Committee issued orders on 26.11.2008 and 09.02.2009. The salient features of these orders are as under :-

- i) Pay scales ranging from ₹ 12,600-32,500 for E-0 grade and to ₹ 80,000-1,25,000 for Chief Executives of schedule 'A' CPSEs.
- ii) A uniform fitment benefit @ 30% on basic pay plus DA @ 68.8% as on 01.01.2007.
- iii) Rate of increment @ 3% of basic pay.
- iv) Perks and allowances upto the maximum of 50% of basic pay, with provision of 'Cafeteria Approach'.
- v) PRP ranging from 40% to 200% of the basic pay.
- vi) Superannuation benefits upto 30% of basic pay.
- vii) Ceiling of gratuity in respect of executives and non-unionized supervisors raised to ₹ 10.00 lakh w.e.f. 01.01.2007.
- viii) Implementation of Pay Revision linked to affordability of the CPSE.
- ix) The CPSE concerned have to finance pay revision from their own resources and no budgetary support will be provided.
- x) An Anomalies Committee consisting of Secretaries of Department of Public Enterprises, Department of Expenditure and Department of Personnel & Training constituted to look into further specific issues/ problem that may arise in implementation of Governments orders on the recommendation of Second Pay Revision Committee.
- xi) DPE will issue necessary instructions/clarifications whenever required in implementation of the decision on pay revision.

Subsequently, a Committee of Ministers headed by the Home Minister 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 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 of 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.

6.5.2.1 Recommendation of Anomalies Committee

In terms of the provision of Anomalies Committee under DPE O.M. dated 26.11.2008, certain issues were considered by the Anomalies Committee. DPE has accordingly issued orders pertaining to (i) Pay etc. of Government Officers on deputation to CPSEs, (ii) Self Lease accommodation, (iii) Medical Expenditure, (iv) Encashment of Leave (v) Benefit of bunching of increment, (vi) Procedure of pay fixation in some past cases of Board level executives, (vii) Protection of last drawn pay in a particular case of Board level executives (viii) NPA not to be considered as pay for the purpose of calculating other benefits and no other allowance or perks to be kept outside the 50% ceiling except the 'four' that have been provided in DPE guidelines.

6.5.2.2 Wage Revision for Workmen under IDA pattern

DPE vide O.Ms dated 9.11.2006 and 01.05.2008 has issued policy guidelines for the 7th Round of Wage Negotiations (which was on a general basis from 01.01.2007) with the unionized workmen of CPSEs. The guidelines are broadly similar to the earlier policy on the Sixth Round of Wage Negotiations. The guidelines also provide that administrative Ministries/ Departments may take a decision on a case by case basis for the periodicity of wage settlement within 10 years but not less than 5 years, with the approval of their Minister.

6.5.2.3 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, in pursuance of the Supreme Court directions dated 12.3.1986, which submitted its Report to the Government on 24.11.1988. Its recommendations 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.

DPE vide O.Ms dated 14.10.2008 and 20.01.2009 has revised pay scales and allowances of the employees of CPSEs following CDA pattern w.e.f. 01.01.2006. The benefit of pay revision was allowed to the employees of those CPSEs that are not loss making and are in a position to absorb the expenditure on account of pay revision from their own resources without any budgetary support from the Government.

6.5.2.4 Important policy guidelines issued during the period 2010-11

- i) The ceiling for payment of gratuity under the Payment of Gratuity Act, 1972 was enhanced from ₹ 3.5 Lakh to ₹ 10 lakh by Ministry of Labour & Employment vide Notification dated 24.05.2010. DPE vide O.M. dated 02.06.2010 extended the enhanced benefit of gratuity to all employees of CPSEs.
- ii) Considering the unique circumstances of each CPSE, it was decided (vide DPE O.M. dated 16.06.2010) that administrative Ministry/ Department would take suitable action on a case by case basis on the recommendations of BIFR/BRPSE and Government decision thereon as per existing guidelines, as far as the issue of pay revision in sick CPSEs was concerned. As regards the issue of CPSEs having income level of less than ₹ 50 crore, it was decided that concerned administrative Ministry/Department would take action on a case by case basis, with concurrence of their Financial Advisor and in consultation with Department of Disinvestment and other stakeholders, if necessary and also with the approval of competent authority.
- iii) For the purpose of Special Allowance upto 10% of basic pay for serving in the difficult and far flung areas (which is outside the 50% ceiling on perks & allowances provided in DPE O.M. dated 26.11.2008), DPE vide O.M. dated 22.06.2010 provided four categories of these areas depending on the degree of remoteness and difficult working conditions, based on DoE O.M. dated 29.08.2008.
- iv) In modification of relevant provision of DPE O.M. dated 26.11.2008 and in terms of DoPT O.M. dated 12.10.2010 read with DPE O.M. dated 03.12.2010 CVOs & other officers on deputation to Vigilance Department of CPSEs were allowed to draw pay either in the scale of pay of the CPSE concerned or pay in the parent cadre plus deputation (duty) allowance thereon plus personal pay, if any.

6.6 Voluntary Retirement Scheme (VRS)

In view of the ongoing restructuring in industry including CPSEs, several measures for reforms and restructuring of CPSEs have been taken up by the Government. Right sizing of manpower in the CPSEs has been one of the measures adopted. In this process, the Voluntary Retirement Scheme, (initially announced in October, 1988 for the first time) was further liberalized and a comprehensive package was notified by DPE in May, 2000 in order to cater to the needs of the CPSEs to meet their objectives and also to protect the interest of the workers affected due to various restructuring models.

Considering the difficulties faced by the enterprises where the wage revision of 1992 or 1997 (as the case may be) could not be effective, the Voluntary Retirement Scheme was liberalized by issuance of subsequent notification of 6th November, 2001, which inter-alia provides for 100% additional compensation for the employees where wage revision of 1992 could not be effected and similarly 50% additional compensation 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% v.w.e.f. 26.10.2004. These increases in VRS compensation are to be computed based on existing pay of employees.

From the introduction of the VRS scheme in October 1988 till March 2011, approximately 6.13 lakh employees have been released under the scheme.

6.6.1 VRS in CPSEs that can sustain the Scheme with their own resources.

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 and sick and unviable CPSEs

Marginally profit /loss making CPSEs as well as sick and unviable units may adopt either (i) 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 superannuating, subject to the condition that the compensation shall not exceed the sum of salary for the balance period left for superannuation (ii) or 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 an amount not exceeding the salary/wage for the balance period of service left.

6.7 Scheme of Counselling, Retraining and Redeployment

Restructuring of enterprises is a global phenomenon, particularly in the context of liberalized economy. There has been thrust on restructuring central public enterprises both at macro as well as micro level. In the process, rationalization of manpower has also become a necessity. However, in some cases it affects the existing manpower due to shift in technology and changed manpower requirements. As such, the policy of the Government has been to implement reforms with a human face and provide adequate 'safety net' for the affected workers due to right sizing.

Accordingly, the Government had established the National Renewal Fund (NRF) in February, 1992 broadly to cover the expenses of VRS and to provide retraining to the workers in the organized sector.

The retraining activity was administered by Department of Industrial Policy & Promotion. However, in February, 2000, due to various reasons NRF was abolished in February, 2000. Since 2001-02, the Scheme for Counselling, Retraining and Redeployment (CRR) of Rationalized Employees of CPSEs is being implemented by Department of Public Enterprises. CRR Scheme was modified in November, 2007 in order to widen its scope and coverage. One dependent of VRS optees is also eligible in case the VRS optee himself is not interested.

The scheme for CR scheme, inter alia, aims to achieve the following objectives:

- (a) to reorient rationalized employees through short duration programmes.
- (b) to equip them for new vocations.
- (c) to engage them in income generating self-employment.
- (d) to help them rejoin the productive process.

The main elements of the CRR programme are Counselling, Retraining and Redeployment. *Counselling* helps the rationalized employees to cope with the trauma of leaving the organization, to properly manage their funds including compensation and to motivate them to face challenges and re-join the productive process. Similarly, *retraining* strengthens their skill/expertise. Selected training institutes impart need-based training in modules of 30 days / 45 days / 60 days.. The faculty support is both internal and external, The approach is to provide

classroom lectures as well as field experience. In the process, trainees interact with experts from various fields and are 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.

The Nodal Training Agencies are required to counsel VRS optees, impart training and reorientation, 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 expected 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.

During 2010-11, a Plan Fund of ₹ 8.90 crore was allocated. Eleven nodal agencies were associated, which included 49 Employees Assistance Centres (EACs) located all over the country. Year wise number of persons trained under the scheme is shown in Table 6.1 below:

Table 6.1
C R R Scheme

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
2009-10	7400
2010-11	9265
Total	162988

6.8 Employment under Reserved Categories

The Personnel and Recruitment Policies in respect of recruitment against below Board level posts are formulated by the management of respective CPSEs. However, on matters of general importance, policy guidelines are issued by the Government to the enterprises which are to be kept in view by the latter while framing their individual corporate policies.

Besides formal Presidential Directives issued to CPSEs by the concerned administrative Ministries to

ensure reservation in regard to employment for Scheduled Castes, Scheduled Tribes and Other Backward Classes (OBCs), on the same lines as applicable in the Central Government Ministries/Departments, the Department of Public Enterprises keeps a watch on the reservation policies in the recruitment through calling for Annual Reports from CPSEs, and taking necessary follow-up action after scrutinizing these reports. A comprehensive Presidential Directive incorporating all important instructions on reservation for SCs and STs, was issued to all the administrative Ministries/Departments concerned on 25th April 1991 for formal issuance of the same to CPSEs. Necessary changes and modifications are 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 providing reservation of 27% of vacancies in favour of Other Backward Classes (OBCs). 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 Department of Public Enterprises (DPE) have been extending these instructions to CPSEs through their administrative Ministries for compliance. A comprehensive Presidential Directive incorporating all instructions was prepared by the Department of Public Enterprises and issued to all administrative Ministries vide DPE's OM dated 27th July, 1995 for formal issuance to CPSEs under their control. DoPT instructions on allocation of a sub-quota of 4.5% for minorities within the 27% reservation for OBCs have been extended vide DPE O.M. dated 2nd January, 2012 to the administrative Ministries/Departments (concerned with CPSEs) for implementation in CPSEs under their control. The castes/communities of the said minorities which are included in the Central list of OBCs, notified from time to time by the Ministry of Social Justice & Empowerment, shall be covered within the the said sub-quota.

Although the administrative Ministries/Departments concerned have been made formally responsible for implementation of these Directives, the Department of Public Enterprises also takes follow-up action on the recommendations made by the Parliamentary Committee on Welfare of Scheduled Castes and Scheduled Tribes and 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 Scheduled Castes/Scheduled Tribes/OBCs in the services, particularly in Group 'A' & 'B' posts. CPSEs have been also advised to invariably associate an officer of appropriate level belonging to SC/ST with their Departmental Promotion Committee/Selection Board.

The present quota for providing reservation for candidates belonging to Scheduled Castes, Scheduled Tribes 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 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%

The representation of SCs/STs in Group 'A' posts has been rising steadily and has increased from 2.90% and 0.66% as on 1.1.1980 to 14.53% and 5.35% respectively as on 1.1.2011. In regard to Group 'B' posts the representation of SCs/STs has risen from 5.12% and 1.36% as on 1.1.1980 to 14.90% and 6.47% respectively as on 1.1.2011 (Annex 6.2). Although the overall percentage of representation of SCs/STs in services is adequate, the representation in Group 'A' and Group 'B' is not upto the mark (Statement-26). The shortfall in the representation of Scheduled Castes/Schedule Tribes in Group 'A' and Group 'B' posts in CPSEs has been there also on account of non-availability of suitable Scheduled Castes and Scheduled Tribes candidates in the technical disciplines. Most of the CPSEs, being in the manufacturing/ production sector, have preponderance of technical posts in Group 'A' and 'B' services.

Furthermore, the need to ensure timely filling up of reserved posts and the backlog has been stressed through various instructions issued 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 have issued necessary instructions to launch Special Recruitment Drive(s) to fill up backlog of reserved vacancies for SCs, STs & OBCs in CPSEs. The DPE has also issued repeated instructions to all the administrative Ministries / Departments dealing with CPSEs to fill up these vacancies in a time bound manner.

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

The DPE has also issued draft Presidential Directive on 22.4.1991 to all the administrative Ministries/Departments concerned with CPSEs for employment of physically handicapped persons in CPSEs. 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 to be filled through Direct Recruitment. As per the Act, not less than 3% posts 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, accordingly, been advised to comply with the provisions of the Act.

Classification of CPSEs as on 31.3.2011

S.No.	NAME of CPSE	Schedule	Holding/Subsidiary	Category
1	AIR INDIA LTD.	A	H	Others
2	AIRPORTS AUTHORITY OF INDIA LTD.	A	H	Miniratna-I
3	BEML LTD.	A	H	Miniratna-I
4	BHARAT BHARI UDYOG NIGAM LTD.	A	H	Others
5	BHARAT ELECTRONICS LTD.	A	H	Navratna
6	BHARAT HEAVY ELECTRICALS LTD.	A	H	Navratna
7	BHARAT PETROLEUM CORPN. LTD.	A	H	Navratna
8	BHARAT SANCHAR NIGAM LTD.	A	H	Miniratna-I
9	CENTRAL WAREHOUSING CORPN.	A	H	Miniratna-I
10	COAL INDIA LTD.	A	H	Maharatna
11	CONTAINER CORPORATION OF INDIA LTD.	A	H	Miniratna-I
12	DEDICATED FRIGHT CORRIDOR CORP. OF INDIA LTD.	A	H	Others
13	ELECTRONICS CORPN. OF INDIA LTD.	A	H	Others
14	ENGINEERS INDIA LTD.	A	H	Miniratna-I
15	FERTILIZERS & CHEMICALS (TRAVANCORE) LTD.	A	H	Others
16	FOOD CORPN. OF INDIA	A	H	Others
17	GAIL (INDIA) LTD.	A	H	Navratna
18	HEAVY ENGINEERING CORPN. LTD.	A	H	Others
19	HINDUSTAN AERONAUTICS LTD.	A	H	Navratna
20	HINDUSTAN COPPER LTD.	A	H	Miniratna-I
21	HINDUSTAN PAPER CORPORATION LTD.	A	H	Miniratna-I
22	HINDUSTAN PETROLEUM CORPN. LTD.	A	H	Navratna
23	HMT LTD.	A	H	Others
24	HOUSING & URBAN DEV. CORPN. LTD.	A	H	Miniratna-I
25	I T I LTD.	A	H	Others
26	INDIAN OIL CORPORATION LTD.	A	H	Maharatna
27	IRCON INTERNATIONAL LTD.	A	H	Miniratna-I
28	KIOCL LTD.	A	H	Miniratna-I
29	KONKAN RAILWAY CORPORATION LTD.	A	H	Others
30	M M T C LTD.	A	H	Miniratna-I
31	MAHANAGAR TELEPHONE NIGAM LTD.	A	H	Navratna
32	MAZAGON DOCK LTD.	A	H	Miniratna-I
33	MECON LTD.	A	H	Miniratna-II
34	MUMBAI RAILWAY VIKAS CORPORATION LTD.	A	H	Others
35	NATIONAL ALUMINIUM COMPANY LTD.	A	H	Navratna
36	NATIONAL BLDG. CONSTN. CORPN. LTD.	A	H	Others
37	NATIONAL FERTILIZERS LTD.	A	H	Miniratna-I
38	NATIONAL TEXTILE CORPN. LTD.	A	H	Others
39	NEYVELI LIGNITE CORPN. LTD.	A	H	Navratna
40	NHPC LTD.	A	H	Miniratna-I
41	NMDC Ltd.	A	H	Navratna
42	NORTH EASTERN ELECTRIC POWER CORPORATION LTD.	A	H	Others
43	NTPC LTD.	A	H	Maharatna
44	OIL & NATURAL GAS CORPORATION LTD.	A	H	Maharatna

S.No.	NAME of CPSE	Schedule	Holding/Subsidiary	Category
45	OIL INDIA LTD.	A	H	Navratna
46	POWER FINANCE CORPORATION	A	H	Navratna
47	POWER GRID CORPORATION OF INDIA LTD.	A	H	Navratna
48	RAIL VIKAS NIGAM LTD.	A	H	Others
49	RAILTEL CORPORATION INDIA LTD.	A	H	Others
50	RASHTRIYA CHEMICALS AND FERTILIZERS LTD.	A	H	Miniratna-I
51	RASHTRIYA ISPAT NIGAM LTD.	A	H	Navratna
52	rites LTD.	A	H	Miniratna-I
53	RURAL ELECTRIFICATION CORPN. LTD.	A	H	Navratna
54	SECURITY PRINTING & MINTING CORPN. INDIA LTD.	A	H	Miniratna-I
55	SHIPPING CORPORATION OF INDIA LTD.	A	H	Navratna
56	SJVN LTD.	A	H	Miniratna-I
57	STATE TRADING CORPN. OF INDIA LTD.	A	H	Miniratna-I
58	STEEL AUTHORITY OF INDIA LTD.	A	H	Maharatna
59	TELECOMMUNICATIONS CONSULTANTS (INDIA) LTD.	A	H	Miniratna-I
60	THDC LTD.	A	H	Miniratna-I
61	ANDREW YULE & COMPANY LTD.	B	H	Others
62	BALMER LAWRIE & CO. LTD.	B	S	Miniratna-I
63	BBJ CONSTRUCTION COMPANY LTD.	B	S	Others
64	BHARAT COKING COAL LTD.	B	S	Others
65	BHARAT DYNAMICS LTD.	B	H	Miniratna-I
66	BHARAT HEAVY PLATE & VESSELS LTD.	B	S	Others
67	BHARAT PUMPS & COMPRESSORS LTD.	B	H	Miniratna-II
68	BRAHAMPUTRA CRACKERS & POLYMER LTD.	B	S	Others
69	BRAHMAPUTRA VALLEY FERTILIZER CORPN. LTD.	B	H	Others
70	BRAITHWAITE & CO. LTD.	B	S	Others
71	BRIDGE & ROOF CO.(INDIA) LTD.	B	H	Miniratna-I
72	BRITISH INDIA CORPORATION LTD.	B	H	Others
73	BURN STANDARD COMPANY LTD.	B	S	Others
74	CEMENT CORPN. OF INDIA LTD.	B	H	Others
75	CENTRAL COALFIELDS LTD.	B	S	Miniratna-I
76	CENTRAL ELECTRONICS LTD.	B	H	Others
77	CENTRAL MINE PLANNING & DESIGN INSTITUTE LTD.	B	S	Miniratna-II
78	CHENNAI PETROLEUM CORPORATION LTD.	B	S	Miniratna-I
79	COCHIN SHIPYARD LTD.	B	H	Miniratna-I
80	COTTON CORPN. OF INDIA LTD.	B	H	Others
81	DREDGING CORPN. OF INDIA LTD.	B	H	Miniratna-I
82	EASTERN COALFIELDS LTD.	B	S	Others
83	ENGINEERING PROJECTS (INDIA) LTD.	B	H	Miniratna-II
84	ENNORE PORT LTD.	B	H	Miniratna-I
85	FERTILIZER CORPN. OF INDIA LTD.	B	H	Others
86	GARDEN REACH SHIPBUILDERS & ENGINEERS LTD.	B	H	Miniratna-I
87	GOA SHIPYARD LTD.	B	H	Miniratna-I
88	HANDICRAFTS & HANDLOOM EXPORTS CORP. OF INDIA LTD.	B	H	Others
89	HINDUSTAN CABLES LTD.	B	H	Others
90	HINDUSTAN FERTILIZER CORPN. LTD.	B	H	Others

S.No.	NAME of CPSE	Schedule	Holding/Subsidiary	Category
91	HINDUSTAN NEWSPRINT LTD.	B	S	Miniratna-I
92	HINDUSTAN ORGANIC CHEMICALS LTD.	B	H	Others
93	HINDUSTAN SHIPYARD LTD.	B	H	Others
94	HINDUSTAN STEELWORKS COSTN. LTD.	B	H	Others
95	HINDUSTAN VEGETABLE OILS CORPN. LTD.	B	H	Others
96	HLL LIFECARE LTD.	B	H	Miniratna-I
97	HMT (INTERNATIONAL) LTD.	B	S	Miniratna-II
98	HMT MACHINE TOOLS LTD.	B	S	Others
99	HMT WATCHES LTD.	B	S	Others
100	INDIA TOURISM DEV. CORPN. LTD.	B	H	Miniratna-I
101	INDIA TRADE PROMOTION ORGANISATION	B	H	Miniratna-II
102	INDIAN DRUGS & PHARMACEUTICALS LTD.	B	H	Others
103	INDIAN RAILWAY CATERING AND TOURISM CORPN. LTD.	B	H	Miniratna-I
104	INDIAN RAILWAY FINANCE CORPORATION LTD.	B	H	Others
105	INDIAN RARE EARTHS LTD.	B	H	Others
106	INDIAN RENEWABLE ENERGY DEVT.AGENCY LTD.	B	H	Others
107	INSTRUMENTATION LTD.	B	H	Others
108	M S T C LTD.	B	H	Miniratna-I
109	MADRAS FERTILIZERS LTD.	B	H	Others
110	MAHANADI COALFIELDLS LTD.	B	S	Miniratna-I
111	MANGALORE REFINERY & PETROCHEMICALS LTD.	B	S	Miniratna-I
112	MINERAL EXPLORATION CORPN. LTD.	B	H	Others
113	MISHRA DHATU NIGAM LTD.	B	H	Miniratna-I
114	MOIL LTD.	B	H	Miniratna-I
115	NATIONAL HANDLOOM DEVELOPMENT CORPORATION LTD.	B	H	Others
116	NATIONAL JUTE MANUFACTURES CORPORATION LTD.	B	H	Others
117	NATIONAL PROJECTS CONSTRUCTION CORPN. LTD.	B	H	Others
118	NATIONAL SEEDS CORPN. LTD.	B	H	Miniratna-I
119	NATIONAL SMALL INDUSTRIES CORPN. LTD.	B	H	Miniratna-II
120	NORTHERN COALFIELDS LTD.	B	S	Miniratna-I
121	NUMALIGARH REFINARY LTD.	B	S	Miniratna-I
122	ONGC VIDESH LTD.	B	S	Miniratna-I
123	P E C LTD.	B	H	Miniratna-II
124	PAWAN HANS HELICOPTERS LTD.	B	H	Miniratna-I
125	PROJECTS & DEVELOPMENT INDIA LTD.	B	H	Others
126	SCOOTERS INDIA LTD.	B	H	Others
127	SOUTH EASTERN COALFIELDS LTD.	B	S	Miniratna-I
128	TYRE CORPORATION OF INDIA LTD.	B	H	Others
129	URANIUM CORPORATION OF INDIA LTD.	B	H	Others
130	WAPCOS LTD.	B	H	Miniratna-I
131	WESTERN COALFIELDS LTD.	B	S	Miniratna-I
132	ANDAMAN & NICOBAR ISL. FOREST & PLANT.DEV.CORP. LTD	C	H	Others
133	ARTIFICIAL LIMBS MFG. CORPN. OF INDIA	C	H	Others
134	BENGAL CHEMICALS & PHARMACEUTICALS LTD.	C	H	Others
135	BHARAT PETRO RESOURCES LTD.	C	S	Others

S.No.	NAME of CPSE	Schedule	Holding/Subsidiary	Category
136	BHARAT WAGON & ENGG. CO. LTD.	C	H	Others
137	BIECCO LAWRIE & CO. LTD.	C	H	Others
138	BROADCAST ENGG. CONSULTANTS INDIA LTD.	C	H	Miniratna-II
139	CENTRAL COTTAGE INDUSTRIES CORPN. OF INDIA LTD.	C	H	Others
140	CENTRAL INLAND WATER TRANSPORT CORPN. LTD.	C	H	Others
141	CENTRAL RAILSIDE WAREHOUSING CO. LTD.	C	S	Others
142	EdCIL(India) Ltd.	C	H	Miniratna-II
143	FCI ARAVALI GYPSUM & MINERALS (INDIA) LTD.	C	H	Miniratna-II
144	FERRO SCRAP NIGAM LTD.	C	S	Miniratna-II
145	HINDUSTAN ANTIBIOTICS LTD.	C	H	Others
146	HINDUSTAN INSECTICIDES LTD.	C	H	Others
147	HINDUSTAN PHOTO FILMS MANUFACTURING CO. LTD.	C	H	Others
148	HINDUSTAN SALTS LTD.	C	H	Others
149	HMT BEARINGS LTD.	C	S	Others
150	HMT CHINAR WATCHES LTD.	C	S	Others
151	HOOGHLY DOCK AND PORT ENGINEERS LTD.	C	H	Others
152	HOTEL CORPN. OF INDIA LTD.	C	S	Others
153	HSCC (INDIA) LTD.	C	H	Miniratna-II
154	JUTE CORPN. OF INDIA LTD.	C	H	Others
155	KARNATAKA ANTIBIOTICS & PHARMACEUTICALS LTD.	C	H	Others
156	NAGALAND PULP & PAPER COMPANY LTD.	C	S	Others
157	NATIONAL BACKWARD CLASSES FINANCE & DEVP.CO.	C	H	Others
158	NATIONAL FILM DEV. CORPN. LTD.	C	H	Miniratna-II
159	NATIONAL HANDICAPPED FINANCE & DEVPT. CORPN.	C	H	Others
160	NATIONAL MINORITIES DEVP. & FINANCE CORPN.	C	H	Others
161	NATIONAL RESEARCH DEVELOPMENT CORPN.	C	H	Others
162	NATIONAL SAFAI KARAMCHARIS FINANCE & DEVPT. CORPN	C	H	Others
163	NATIONAL SCHEDULED CASTES FINANCE & DEVP. CORPN.	C	H	Others
164	NATIONAL SCHEDULED TRIBES FINANCE & DEVP. CORPN.	C	H	Others
165	NEPA LTD.	C	H	Others
	NORTH EASTERN HANDICRAFTS & HANDLOOM DEV. CORPN. LTD.	C	H	Others
167	NORTH EASTERN REGIONAL AGRI. MARKETING CORP. LTD.	C	H	Others
168	RAJASTHAN ELECTRONICS AND INSTRUMENTS LTD.	C	H	Miniratna-II
169	RICHARDSON & CRUDDAS(1972) LTD.	C	H	Others
170	STATE FARMS CORPORATION OF INDIA LTD.	C	H	Others
171	STCL LTD.	C	S	Others
172	TRIVENI STRUCTURALS LTD.	C	H	Others
173	TUNGABHADRA STEEL PRODUCTS LTD.	C	H	Others
174	HINDUSTAN FLUOROCARBONS LIMITED	D	S	Others
175	HINDUSTAN PREFAB LTD.	D	H	Others
176	INDIAN MEDICINES & PHARMACEUTICAL CORPN. LTD.	D	H	Miniratna-II
177	ORISSA DRUGS & CHEMICALS LTD.	D	S	Others
178	RAJASTHAN DRUGS & PHARMACEUTICALS LTD.	D	S	Others
179	AIR INDIA AIR TRANSPORT SERVICES LTD.	UC	S	Others

S.No.	NAME of CPSE	Schedule	Holding/Subsidiary	Category
180	AIR INDIA CHARTERS LTD.	UC	H	Others
181	AIR INDIA ENGINEERING SERVICES LTD.	UC	S	Others
182	AIRLINE ALLIED SERVICES LTD.	UC	S	Others
183	ANTRIX CORPORATION LTD.	UC	H	Miniratna-I
184	ASSAM ASHOK HOTEL CORPN. LTD.	UC	S	Others
185	BALMER LAWRIE INVESTMENTS LTD.	UC	H	Others
186	BEL OPTRONICS DEVICES LTD.	UC	S	Others
187	BHARAT IMMUNOLOGICALS & BIOLOGICALS CORP. LTD.	UC	H	Others
188	BHARAT PETRO RESOURCES JPDA	UC	S	Others
189	BHARATIYA NABHIKIYA VIDYUT NIGAM LTD.	UC	H	Others
190	BHARTIYA RAIL BIJLEE CO. LTD.	UC	S	Others
191	BHEL ELECTRICAL MACHINES LTD.	UC	S	Others
192	BIHAR DRUGS & ORGANIC CHEMICALS LTD.	UC	S	Others
193	BIRDS JUTE & EXPORTS LTD.	UC	S	Others
194	BISRA STONE LIME COMPANY LTD.	UC	S	Others
195	CERTIFICATION ENGINEERS INTERNATIONAL LTD.	UC	S	Others
196	CHHATTISHGARH SURGUJA POWER LTD.	UC	S	Others
197	COASTAL KARNATAKA POWER LTD.	UC	S	Others
198	COASTAL MAHARASHTRA MEGA POWER LTD.	UC	S	Others
199	COASTAL TAMIL NADU POWER LTD.	UC	S	Others
200	CREDA HPCL BIOFUEL LTD.	UC	S	Others
201	DONYI POLO ASHOK HOTEL LTD.	UC	S	Others
202	EASTERN INVESTMENT LTD.	UC	S	Others
203	EXPORT CREDIT GUARANTEE CORPN.OF INDIA LTD.	UC	H	Others
204	FRESH & HEALTHY ENTERPRISES LTD.	UC	S	Others
205	GAIL GAS LTD.	UC	S	Others
206	GHOGARPALLI INTEGRATED POWER COMPANY LTD.	UC	S	Others
207	HOOGHLY PRINTING COMPANY LTD.	UC	S	Others
208	HPCL BIOFUELS LTD.	UC	S	Others
209	IDPL (TAMILNADU) LTD.	UC	S	Others
210	INDIA INFRASTRUCTURE FINANCE CO. LTD.	UC	H	Others
211	INDIAN VACCINE CORP. LTD.	UC	H	Others
212	IRCON INFRASTRUCTURE & SERVICES LTD.	UC	S	Others
213	J & K MINERAL DEVELOPMENT CORPN. LTD.	UC	S	Others
214	JAGDISHPUR PAPER MILLS LTD.	UC	S	Others
215	KANTI BIJLEE UTPADAN NIGAM LTD.	UC	S	Others
216	KARNATAKA TRADE PROMOTION ORGANISATION	UC	S	Others
217	KUMARAKRUPPA FRONTIER HOTELS LTD.	UC	H	Others
218	LOKTAK DOWNSTREAM HYDROELECTRIC CORPORATION LTD.	UC	S	Others
219	MADHYA PRADESH ASHOK HOTEL CORPN. LTD.	UC	S	Others
220	MAHARASHTRA ELEKTROSMELT LTD.	UC	S	Others
221	MILLENNIUM TELECOM LTD.	UC	S	Others
222	MJSJ COAL LTD.	UC	S	Others
223	MNH SHAKTI LTD.	UC	S	Others
224	NATIONAL INFORMATICS CENTRE SERVICES INCORPORATED	UC	H	Others

S.No.	NAME of CPSE	Schedule	Holding/Subsidiary	Category
225	NHDC LTD.	UC	S	Others
226	NLC TAMIL NADU POWER LTD.	UC	S	Others
227	NMDC-CMDC LTD.	UC	H	Others
228	NTPC ELECTRIC SUPPLY COMPANY LTD.	UC	S	Others
229	NTPC HYDRO LTD.	UC	S	Others
230	NTPC VIDYUT VYAPAR NIGAM LTD.	UC	S	Others
231	NUCLEAR POWER CORPN. OF INDIA LTD.	UC	H	Others
232	ORISSA INTEGRATED POWER LTD.	UC	S	Others
233	ORISSA MINERAL DEVELOPMENT COMPANY LTD.	UC	S	Others
234	PFC CONSULTING LTD.	UC	S	Others
235	PONDICHERRY ASHOK HOTEL CORPN. LTD.	UC	S	Others
236	POWER SYSTEM OPERATION CORPORATION LTD.	UC	S	Others
237	PUNJAB ASHOK HOTEL COMPANY LTD.	UC	S	Others
238	RANCHI ASHOK BIHAR HOTEL CORPN. LTD.	UC	S	Others
239	REC POWER DISTRIBUTION CO. LTD.	UC	S	Others
240	REC TRANSMISSION PROJECT CO. LTD.	UC	S	Others
241	rites INFRASTRUCTURE SERVICES LTD.	UC	H	Others
242	SAKHIGOPAL INTEGRATED POWER COMPANY LTD.	UC	S	Others
243	SAMBHAR SALTS LTD.	UC	S	Others
244	SETHUSAMUDRAM CORPN. LTD.	UC	H	Others
245	TAMIL NADU TRADE PROMOTION ORGANISATION	UC	S	Others
246	TATIYA ANDHRA MEGA POWER LTD.	UC	S	Others
247	UTKAL ASHOK HOTEL CORPN. LTD.	UC	S	Others
248	VIGNYAN INDUSTRIES LTD.	UC	S	Others

Note : UC -Uncategorized CPSE, * Shell Companies / SPVs (Special Purpose Vehicle).
The Schedule and status of the company is as per latest information available.

Representation of SCs/STs/OBCs in CPSEs

Group	Total No. of employees	Representation of SC				OBCs No.
		SCs No.	%age	STs No.	%age	
1	2	3	4	5	6	
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' (Excluding Safai Karamcharis)	3,53,981	79,167	22.36	38,083	10.76	
Total	18,20,302	3,17,401	17.44	1,38,364	7.60	
Group 'D' (Safai Karamcharis)	36,030	23,309	64.69	1,492	4.14	
Grand Total	18,56,332	3,40,710	18.35	1,39,856	7.53	
As on 1.1.2010 (Based on information furnished by 206 Enterprises)						
Group 'A'	261072	40389	15.47	13993	5.35	29279
Group 'B'	208501	30560	14.65	13117	6.29	18011
Group 'C'	742516	145619	19.61	51884	6.98	71698
Group 'D' (Excluding Safai karamcharis)	221159	42733	19.32	27546	12.45	35564
Total	1433248	259301	18.09	106540	7.43	154552
Group 'D' (Safai Karamcharis)	34162	11517	33.71	1462	4.27	611
Grand Total	1467410	270818	18.45	108002	7.36	155163
As on 1.1.2011 (Based on information furnished by 207 Enterprises)						
Group 'A'	209292	30416	15.53	11198	5.35	209011
Group 'B'	209086	31149	14.90	13521	6.47	19336
Group 'C'	737273	141422	19.18	64575	8.76	101809
Group 'D' (Excluding Safai karamcharis)	244192	49694	20.35	28849	11.81	37956
Total	1399843	252681	18.05	118143	8.44	368112
Group 'D' (Safai Karamcharis)	10419	7858	75.42	302	2.90	330
Grand Total	1410262	260539	18.47	118445	8.40	368442

Note: Group 'A' : Managerial/Executive Level
Group 'C' : Workmen/Clerical Level

Group 'B' : Supervisory Level
Group 'D' : Semi-skilled/Unskilled

Delegation of Enhanced Financial Powers to CPSEs

The Board of Directors of a CPSE exercise 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 Maharatna, Navratna, Miniratna and other profit making enterprises.

Keeping in view the pledge made in the then 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 Maharatna Scheme

The Government has introduced Maharatna scheme in December, 2009 with the objective to delegate enhanced powers to the Boards of identified large sized Navratna CPSEs so as to facilitate expansion of their operations, both in domestic as well as global markets.

7.1.1 Eligibility criteria for grant of Maharatna status:

The CPSEs fulfilling the following criteria are eligible to be considered for grant of Maharatna status:-

- Having Navratna status
- Listed on Indian stock exchange, with minimum prescribed public shareholding under SEBI regulations
- An average annual turnover during the last 3 years of more than ₹ 25,000 crore
- An average annual net worth during the last 3 years of more than ₹ 15,000 crore
- An average annual net profit after tax during the last 3 years of more than ₹ 5,000 crore
- Significant global presence or international operations.

7.1.2 Delegation of powers to Maharatna CPSEs :

The Maharatna CPSEs in addition to having Navratna powers have been delegated additional powers in the area of investment in joint ventures/subsidiaries and human resources development. The Maharatna CPSEs can invest ₹ 5000 crore in one project (₹ 1,000 crore for Navratna CPSEs) and create below Board level posts upto E-9 level (E-6 for Navratna CPSEs).

7.1.3 Maharatna CPSEs :

The Government has conferred Maharatna status to 5 CPSEs namely, (i) Coal India Limited, (ii) Indian Oil Corporation Limited, (iii) NTPC Limited, (iv) Oil & Natural Gas Corporation Limited and (v) Steel Authority of India Limited.

7.2 Navratna scheme

The Government introduced the Navratna scheme in July, 1997 to identify and delegate enhanced powers to CPSEs having comparative advantage and the potential to become global players.

7.2.1 Eligibility Criteria for Grant of Navratna Scheme

As per the criteria laid down by the Government, Miniratna Category – I and Schedule ‘A’ CPSEs, which have obtained ‘excellent’ or ‘very good’ rating under the Memorandum of Understanding system in three of the last five years, and have a composite score of 60 or above in the six selected performance parameters are eligible to be considered for grant of Navratna status.

7.2.2 Delegation of Powers to Navratna CPSEs

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

- Capital Expenditure:-** The Navratna CPSEs have the powers to incur capital expenditure on purchase of new items or for replacement, without any monetary ceiling.
- 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.
- Organization 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.
- 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: -
 - a) ₹ 1000 crore in any one project,
 - b) 15% of the net worth of the CPSE in one project,
 - c) 30% of the net worth of the CPSE in all joint ventures/ subsidiaries put together.
- vii) **Mergers and acquisitions:-** 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 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.
- 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 in (b) 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 an 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 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.

7.2.3 Presently, there are 16 Navratna CPSEs as under:

- i) Bharat Electronics Limited
- ii) Bharat Heavy Electricals Limited
- iii) Bharat Petroleum Corporation Limited
- iv) GAIL (India) Limited
- v) Hindustan Aeronautics Limited
- vi) Hindustan Petroleum Corporation Limited
- vii) Mahanagar Telephone Nigam Limited
- viii) National Aluminium Company Limited
- ix) Neyveli Lignite Corporation Limited
- x) NMDC Limited
- xi) Oil India Limited
- xii) Power Finance Corporation Limited
- xiii) Power Grid Corporation of India Limited
- xiv) Rashtriya Ispat Nigam Limited
- xv) Rural Electrification Corporation Limited
- xvi) Shipping Corporation of India Limited

7.3 Miniratna scheme

In October 1997, the Government in order to make promising profit making CPSEs more efficient and competitive decided to grant enhanced autonomy and delegation of financial powers subject to certain eligibility conditions and guidelines to make them efficient and competitive. These companies, called Miniratnas, are in two categories, namely, Category- I and Category-II.

7.3.1 Eligibility Criteria for Miniratna Status

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 ₹ 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 enhanced delegated powers provided they have not defaulted in the repayment of loans/interest 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.

7.3.2 Delegation of Powers to Miniratna CPSEs:

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 ₹ 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 ₹ 250 crore or equal to 50% of the Net worth, whichever is less.
- (ii) Joint ventures and subsidiaries:
 - (a) Category I CPSEs: 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 ₹ 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: 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 ₹ 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 :-** The Board of Directors of these CPSEs have the powers for mergers and acquisitions, 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 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 (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:-** 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.

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

3.4 Presently (as on 31.12.2011), there are 67 Miniratna CPSEs (51 in Category I and 16 in Category II).

7.4. Other profit making CPSEs

Those CPSEs which have shown a profit in each of the 3 preceding accounting years and have a positive net worth are categorized as 'other profit making CPSEs'.

7.4.1 Delegation of Powers:

These CPSEs have been delegated enhanced powers as under:-

(i) **Capital Expenditure:-** These CPSEs have the power to incur capital expenditure up to ₹ 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;

(b) the required funds can be found from the internal resources of the company and extra budgetary resources (EIBR) 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.

MoU System in CPSEs

The Memorandum of Understanding (MoU) as applicable to public sector enterprises is a negotiated agreement 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 recommendations of the Simon Nora Committee Report (1967). The MoU system is intended 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 on the basis 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 petrochemicals.

8.1 Autonomy and Accountability

The 'management' of the enterprise is made accountable to the government through promise for performance or 'performance contract'. The government continues to have control over these enterprises, however, through a priori supervision/ '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. While fixing prices for products of CPSEs operating under monopoly conditions, the Committee recommended that these should be benchmarked with international prices. 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. The gradual dismantling of Administered Price Mechanism (APM) since 1991 has 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 MoUs after approval by the respective Boards and the Administrative Ministries. The draft MOUs indicate various 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 Task Force on MoU set up by DPE provides the oversight during the MoU negotiations. The MoU negotiations meetings 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 Statistics & Programme Implementation.

8.2.1 Task Force and Syndicates

The MoU Task Force comprises former Civil Servants, ex-CMDs of the Public Enterprises, finance professionals, domain experts and academics. They are selected by DPE. Currently, there are 68 Task Force (TF) members who are divided into sector-wise Syndicate Groups. Each Syndicate consists of 6 members normally. 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 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 meetings. 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, Chairman Tariff Commission and Secretary (Performance Management). The HPC 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% of basic pay respectively. However, there will be no PRP irrespective of the profitability of CPSE, in case it is rated as "Poor". 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 Excellence Awards, 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
- (vii) All MoUs have 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 2004-05. 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 are both in the form of absolute values, such as gross margins (profits) and turnover as well as in terms of ratios. 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 macroeconomic 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. Each of these performance targets for MoUs are, moreover, framed on a five point scale.

The 'composite score' that is finally arrived at is thus an index of the performance of the enterprises. The rating of the 'composite score' is done in the following manner

MoU Composite Score	Rating
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 197 CPSEs in the year 2011-12. Table 8.1 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	1999-2000	108
1988-89	11	2000-01	107
1989-90	18	2001-02	104
1990-91	23	2002-03	100
1991-92	72	2003-04	96
1992-93	98	2004-05	99
1993-94	101	2005-06	102
1994-95	100	2006-07	113
1995-96	104	2007-08	144
1996-97	110	2008-09	144
1997-98	108	2009-10	197
1998-99	108	2010-11	202
		2011-12	197

** Until 2008-09, only Independent/Holding (Companies) CPSEs were signing MoUs with their respective Ministries. However, from 2009-10, the Subsidiary Companies of CPSEs have been signing MoUs with their Holding CPSEs, under the aegis of the MoU Task Force constituted by the Department of Public Enterprises..*

8.6 MoU ratings of CPSEs

MoU rating of CPSEs during the last five years is shown in the Table 8.2 below:

Table 8.2
MoU Ratings

Rating	2006-07	2007-08	2008-09	2009-10	2010-11
Excellent	46	55	47	74	67
Very Good	37	34	34	30	42
Good	13	15	25	20	24
Fair	06	08	17	20	24
Poor	00	00	01	01	02
Total	102	112	124	145	159

Research & Development

The 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. Given the scope of improvement, various products and services have a very short product life cycle. R&D, in this respect, helps phase out products (& services) through introduction of new designs and technologies, and improvement in quality.

While a number of CPSEs have in-house R&D facilities, the others have also gone 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. There is, also, a 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, patent and processes generated through national R&D institutions, thus helping individual enterprises and institutions acquire IPR/ Patents for commercial use.

Technological collaboration with leading companies of the world has been another approach adopted by CPSEs for upgrading their technological know-how.

R&D has been included as a compulsory element under the “non-financial parameters” under the MoU system in CPSEs with a 5% weightage attached to it. In order to remove ambiguity and bring uniformity of approach, guidelines have been issued specifying scope of activities under R&D. The guidelines are a charter on activities, projects, expenditure, documentation and monitoring of initiatives by CPSEs. The Guidelines on Research & Development for CPSEs mentions the followings:

- i) **‘Research’** is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. **‘Development’** is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.
- ii) **‘Scientific Research and Development’** shall mean systematic investigation and search in the field of technology natural or applied science (including agriculture).
- iii) R&D policy of the CPSE should align with its

Vision and Mission and based on this policy the CPSE must develop R&D Manual and R&D Plan.

- iv) R&D plans should contain details about implementation as well as procedures and methodologies for monitoring results and modalities of concurrent and final evaluation.
- v) The expenditure on R&D as a percentage of PAT will have 50% weight in total marks of 5. The prescribed minimum amount for expenditure under R&D will be 0.5 per cent of PAT of the previous year for Miniratna and other CPSEs and minimum 1 per cent of PAT for Navratna/ Maharatna CPSEs.
- vi) CPSE should create a mechanism/process for planning/monitoring at Apex level to decide on R&D activities on long term/short term basis. The Sub-committee of the Board (on R&D) will be responsible for periodic monitoring and review of R&D activities
- vii) R&D projects have to be based on stable and permanent mechanism for implementation; baseline organizational survey (before and after the project); project identification in line with business needs and core activities; specification of outcomes extracted from the project; setting timeline and mileposts; collaboration and synergizing with Universities/institutions/ Research laboratories; outsourcing and scheme for incentives and rewards.
- viii) Evaluation of the performance of the R&D project will have to be based on its objectives, scope, deliverables and benefits (techno-commercial). The list of R&D projects/ activities with target values/performance indicators will be submitted by the CPSE to Task Force each year. The Task Force will approve 3-5 projects or add any other R&D projects with performance indicators. The evaluation/rating of the selected projects done by Research Advisory Committee of the CPSE or any independent expert will be considered by the Task Force for awarding MoU score against R&D projects.
- ix) The Department of Public Enterprises will create a National R&D Hub which will act as a Think Tank and undertake/facilitate nation-wide compilation, documentation and creation of database; advocacy; research; training, publication, promotional activities ,etc.

The following paragraphs explain briefly the various R&D activities being undertaken by the different CPSEs in the different cognate groups of manufacturing and services sectors.

9.1 Coal

9.1.1 Neyveli Lignite Corporation Ltd. (NLC)

NLC has undertaken studies on the use of Fly ash generated in power plants for its better utilisation. Under the Coal S&T project, namely, 'Development and use of Fly ash based pesticides', various formulations were developed and the project was successfully completed.

A preliminary R&D project has been completed in collaboration with the Central Electro Chemical Research Institute (CECRI), Karaikudi. Studies to produce Zeolite from Neyveli Fly ash at laboratory scale was optimised in association with IIT/Kharagpur and its efficiency to remove calcium from ground water was also studied. The results were encouraging and the quality is similar to commercial grade in terms of calcium removal. Based on this, action was initiated to go for bench scale production.

A joint R&D project was taken up with National Institute of Technology/Trichy to study preventive measures for corrosion problems in Storm Water Control pumps. Suitable coatings to withstand corrosion are identified by lab tests. Based on the recommendations three pumps were coated and deployed in mines. The performance of the coating is under evaluation.

A project has been taken up jointly with VIT/ Vellore to utilise bottom ash from thermal plants as partial replacement of sand in construction activities. Preliminary studies have been carried out.

An air dispersion model has been developed by VIT/ Vellore, which is able to predict the patterns of concentration about the NLC stacks. The removal rates of SO₂ by the evergreen canopy at NLC have been determined. Further study and validation works are in progress.

9.2 Electricity

9.2.1 NHPC Ltd.

NHPC in its endeavour to avail benefits under CDM as well as other carbon trading initiatives is in the process of obtaining CDM benefits under Voluntary Emission Reductions (VERs) Scheme in respect of Teesta-V Power Station. On this account, NHPC will get additional revenue.

Two medium sized hydroelectric projects, namely, Nimoo Bazgo (3x15 MW) and Chutak (4x11 MW) located in Leh&Kargil Districts of J&K state have already been registered by CDM Executive Board of UNFCCC.

NimooBazgo and Chutak Projects will reduce emissions of 187,893 metric tonne CO₂ equivalent and 166,831 metric tonne CO₂ equivalent annually respectively after their commissioning. On this account, NHPC will get additional revenue from both the projects annually over a period of seven years which shall be renewed for another two terms of seven years each.

Computational Fluid Dynamics (CFD) Lab in NHPC, Corporate Office has been established to analyze the flow pattern in the water conductor system. In this regard CFD analysis of water flow through penstocks of three power stations, namely, Salal, Bairasiuland Loktak has been completed. CFD analysis is also being carried out for hydraulic studies of flow through surge shaft & Dam-Spillway.

Development of new alloy material having superior properties to resist silt erosion damage and increase longevity of machines is in the process for use in turbine underwater components. A research project proposal under NPP "Tunneling in Water Charged Zones under High Hydrostatic Pressure" has been entrusted to NHPC through Central Power Research Institute (CPRI) by Ministry of Power, Govt. of India involving a financial outlay of ₹ 109.03 lakh and duration of 2 years.

NHPC is also in the process to develop wind power of 8-10 MW near Salal Power Station in Bidda, (J&K).

An MOU between International Research and Training Centre on Erosion & Sedimentation (IRTCES), China and NHPC has been signed for co-operation in research areas in sedimentation and their management in hydro reservoir. Two reservoirs namely, Chamara-I & Dhauliganga-I from NHPC and two reservoirs namely, Bajiazui&Hongshan from IRTCES, China have been selected for the collaborative research. The research work is under progress.

9.2.2 NTPC Ltd. (NTPC)

NTPC is a technology driven company and is fully aligned to the needs of adapting to emerging technologies and upgrading the technologies through R&D. Towards this, NTPC has adopted a multi-pronged approach. NETRA (NTPC Energy Technology Research Alliance) has been established in 2009 after merging of R&D center (established in 1981) and Energy Technologies. The focus areas are: climate change, waste management, new & renewable energy, efficiency improvement and cost reduction besides providing scientific support to NTPC and external utilities for improving availability, reliability and efficiency. NETRA is networked with Institutes/ organizations for research related to development of cost economic technologies in the field of Climate change, New & Renewable energy, efficiency & reliability enhancement of thermal power generation and CO₂ mitigation/fixation. It is also in dialogue with many International institutes/ organizations for networking in these areas.

Initiatives have been taken to develop technologies for reducing forced outages, installing intelligent online monitoring of critical components, understanding the likely damages due to corrosion and providing appropriate solutions etc. Effort is being made for reducing cost of generation by either increasing the overhaul cycle or reducing overhaul duration through correct and proper health assessment of critical components, developing diagnostic tools and ensure environmental & safety compliances. The prime thrust is towards clean and economic power generation. The Patents have been filed in the areas of climate change, waste management etc.

Research Advisory Council (RAC) comprising of eminent scientists and experts from India and abroad has been constituted to steer NETRA for high end research. In-house Scientific Advisory Council (SAC) has also been constituted to provide directions for improving plant performance and reducing cost of power generation.

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

R&D and TD activities in the Company are oriented towards addressing the specific requirements emanating from its operating stations projects under construction and the supporting groups within NPCIL. These efforts are focused more towards continued enhancement of nuclear safety improvement in plant performance parameters and reduction in operational costs reduction in project gestation period. A greater thrust is being given to indigenisation of hitherto imported components and equipment and broadening the vendor base to facilitate the expansion of nuclear programme.

9.3 Crude Oil

9.3.1 Oil and Natural Gas Corporation Ltd. (ONGC)

ONGC along with TERI has been carrying out R&D in the field of Microbial Enhanced Oil Recovery, Paraffin Degrading Bacteria and Flow Assurance for the last 3-4 years. Field trials on pilot scale have been conducted by the Company.

Study have also been organised to explore advances that have taken place in field of material selection (and guidelines practiced worldwide along with update on relevant standards and codes. Application of composite material pipes for effluent and produced water lines in Onshore Assets have been studied. Mapping of Gas Hydrates of KG Deep Water, Seismic modeling of long offset data for sub-basalt analysis have been also done.

R&D Projects on reservoir characterization, reservoir simulation, performance monitoring, EOR processes and basic laboratory data generation for various fields operated by ONGC have been further more documented.

9.3.2 Oil India Ltd. (OIL)

Specific areas in which R&D activities have been carried out by the Company are mentioned below:

- **Integration of Geochemical Data into the Petroleum System Model of Upper Assam Basin:** A contract has accordingly been awarded to M/s. IGI Limited to carry out the petroleum system modeling of Upper Assam Basin by integrating the available geochemical and geophysical information. Collection of geoscientific data and other relevant geochemical work including maturity parameters, kinetic parameters and biomarker analysis has been commenced by M/s. IGI.
- **Reservoir Fluid Identification Through Geochemical Analysis of Sidewall Cores** 829 sidewall core samples from 32 wells of Upper Assam Basin and 158 sidewall core samples from 4 wells of Rajasthan Basin were analyzed by using TLC-FID and Gas Chromatograph.
- **Surface Geochemical Exploration Using Adsorbed Soil Gas Method** Analysis of 200 surface soil samples each from Krishna Godavari delta region and Sadiya Block were carried out using adsorbed soil gas technique to delineate prospective area.
- **Development of Bacterial Strain and Nutrient Suitable for MEOR and Paraffin Control Job:** A collaborative project has been taken up with TERI, Delhi to develop a bacterial strain and nutrient suitable for paraffin control and MEOR jobs for our fields from in-situ sources. For isolation of the bacterial strain, samples from different reservoirs have been collected and presently isolation work is being carried out.
- **Microbial Treatment Job in Oil Wells to Reduce Paraffin Deposition** Microbial treatment in ten producing wells is being designed and the procurement process for microbial strain other chemicals is in progress.
- **Shale Gas / Tight Gas Exploration:** In order to explore the possibility of exploiting any Shale Gas and Tight Gas deposits, a strategic project has been undertaken with the objective of establishing the resource potential in operational areas in Assam-Arakan and Rajasthan basins by engaging an external consultant. A techno-economic feasibility study based on geo-scientific data available with OIL will also be carried out by the external consultant. The consultant will identify 2-3 sweet spots to drill pilot wells. Depending on the success of the pilot program, the Company will initiate a full scale exploration

and production program targeting identified Shale Gas prospects, in line with the upcoming Shale Gas Policy of GoI.

9.4 Petroleum (Refining & Marketing)

9.4.1 Bharat Petroleum Corporation Limited (BPCL)

During the year, new products developed include gasoline engine oil meeting global Original Equipment specifications, high performance engine oils for 4 stroke 2 wheelers, multipurpose lubricants for agricultural/ farm equipments, synthetic high temperature industrial lubricants, synthetic metal working fluids and defence specific grade lubricants. The alternate formulations developed have helped in improving operational flexibility, besides reducing input/ operating costs. During the year, a number of critical approvals of our products were obtained from major Original Equipment Manufacturers / customers / end users / international approving bodies.

9.4.2 Chennai Petroleum Corpn. Ltd. (CPCL)

CPCL has an in house R&D Centre which provides support to refinery operations by carrying out Pilot Plant evaluation of catalysts and feed stocks for secondary processing facilities. The R&D Centre also carried out process and feed optimization studies. During the year, additional analytical facilities were commissioned for Catalysts Performance monitoring of Continuous Catalytic Reforming (CCR) Unit. Extensive reformer pilot plant studies were carried out to successfully develop a Robust CCR model for supporting the commercial CCR unit. CPCL has entered into research cooperation with the Indian Institute of Technology, Madras, which has resulted in generating a database required for proposing changes in the current BIS specification on paving grade Bitumen.

9.4.3 Hindustan Petroleum Corporation Limited (HPCL)

R&D is envisaged to provide support to the refineries and marketing arms in terms of development, absorption of new technologies and product development. It will also initiate research in other areas like Biofuels and nanotechnology. To meet this vision, an initial investment of ₹210 crores has been outlined for setting up a Green R&D Centre at Bengaluru.

During 2010-11, collaborative projects with various institutions like NIT, IIT, Indian Institute of Petroleum, Dehradun and Research & Development Center for Iron and Steel (RDCIS), Ranchi were taken up for understanding the impacts of various chemicals on different formulations as fundamental research. HPCL has signed an MOU under Indo Canadian Scientific & Collaborative R&D projects for development of Bio Jet fuels for Aviation Industry. An agreement between IIT Kanpur, IISc Bengaluru, IIP Dehradun, IOCL, Pratt & Whitney (Infosys) and HPCL has been finalized.

9.4.4 Indian Oil Corporation (IOC)

IOC's Research & Development Center developed 132 new product Formulations during the year, of which more than 85% were commercialized. During the year 46 original Equipment Manufacturers (OEMs) approvals and defence certifications were obtained. Dual mode de-asphalting technology was developed to enhance Refinery Distillate Yield using LPG as solvent. A multi feed fluidized bed gasification pilot plant was commissioned to support research in the area of Gas to Liquid conversion. During the year, 12 patents were filed in India out of which two have been granted. In addition, two patents in US, one in France and one in Russia were granted. IndianOil's Bio-remediation Technology-Oilivorous S was utilized for treating oil spills at marine locations caused by collision of ships off Mumbai coast.

9.5 Other Mineral & Metals

9.5.1 Manganese Ore (India) Ltd

Specific areas in which R&D activities have been carried out by the Company are: Inception of Load Haul & Dump machine (LHD) tyre in underground mines for development & stopping operations; Optimization of stope designs for safety & productivity improvement; Engaged in hydro-geological studies for underground mining operations at Kandri Mine; Increase level of interval (from exiting 30 Meters to 45 Meters) for rapid mining operations; Independent high speed shaft sinking operation for underground mining for 650 mtr at Balaghat Mine, (hydrological studies & stress monitoring is going on at the site for safety of the project); commissioning of PLC driven compressors in Kandri, Ukwa&Gumgaon Mine for energy saving and studies of reclamation of waste dumps and investigations for other environmental protection measures; collaborative research studies for use of overburden material for consolidated hydraulic stowing operation for the underground mining operation with Visvesvaraya National Institute Technology, Nagpur; development of alternative mining methods and support systems for underground mines; installation additional indigenously developed IMB plant of 100000 TPA capacity for secondary recovery of manganese ore from the rejects of integrated manganese beneficiation plant and dumps at Balaghat Mine and a study for beneficiation of low grade ore/ fines is in progress.

9.5.2 Indian Rare Earths Ltd. (IREL)

The R & D centres of IREL are located at Mineral Research and Development Centre(MRDC), Kollam, Technical Service Division(TSD), OSCOM, Chatrapur and Rare Earths Division (RED), Aluva. MRDC undertakes constancy projects on mineral separation i.e. sand beneficiation, etc., along with mineral separation investigation to improve yield and products. The facilities include various magnetic, gravity, hydraulic and electrostatic separators, floatation cells, grinding mills, vacuum filters, microscopes and analytical instruments i.e.ICP, UV spectrometer, etc. TSD, OSCOM is equipped

with analytical instruments i.e. X-ray diffractometer, thermal analyser, atomic absorption spectrometer, UV spectrometers, particle size analysers, etc. for study and development of processes for manufacturing synthetic rutile, stabilised and partially stabilised zirconia, gem grade zirconia, etc. RED, Aluva develops solvent extraction and ion exchange-based processes for presentation of pure rare earth chemicals.

9.5.3 Uranium Corporation of India Ltd

The R&D initiatives that have been taken by the company are in the areas of: Use of fly ash with mill tailings in underground for back-filling; Stopewise/ Loadwise leaching studies of all the operating mines of Singhbhum; Optimising the parameters for Uranium Peroxide in place of MDU, an upgraded product and Maximising the usage of effluent water.

9.5.4 National Aluminium Co. Ltd. (NALCO)

The Company has undertaken ambitious plan for setting up of a world class Research & Technology Centre at Bhubaneswar with the Vision to set up world class, state of the art research and development facilities to enable NALCO to achieve excellence and sustainability in process, product and technology in the field of Bauxites, Alumina, Aluminum, Power and allied areas including downstream products. The Company has the Mission to develop and strengthen technology expertise pertaining to Bauxite, Alumina and Aluminium process in the next five years, which will enable NALCO to be self sustained in the field of Bauxite mining, Alumina Refining and Aluminium Smelting technology.

9.5.5 National Mineral Development Corp. Ltd. (NMDC)

The R&D division of the company is involved in: Utilization of Blue Dust from Blue Dust; Beach Sand Development of Indigenous Technology for production of value added products from Beach Sand; utilization of Kimberlite Waste Zeolite A, Precipitated Silica and Ferrite from Kimberlite Waste.

9.6 Steel

9.6.1 Mishra Dhatu Nigam Limited (MIDHANI)

Midhani Research and Development (R&D) center is focused on the development of new alloys for strategic needs, modification of process for reduction of manufacturing cost and improving the quality of product. Midhani is offering its core competence for manufacturing alloys tailor-made to suit the specific stringent requirements of customers for their critical applications. The R&D efforts at MIDHANI resulted in the development of five new products used for critical applications during the financial year 2010-11.

9.6.2 Rashtriya Ispat Nigam Ltd. (RINL)

R&D activities are undertaken in RINL keeping in view the present & future requirements of the different plants waste management, cost reduction and environment protection. Some of the major R&D initiatives undertaken have been like Development of Lance tip design, a comprehensive study on Underground water resources, Study on Corrosion Problem in BF LD Gas Pipe line and CCM Bunker plates and roof of benzol tank, Developments of New grades etc.

9.6.3 Steel Authority of India Ltd. (SAIL)

Research & Development Centre for Iron and Steel (RDCIS) have provided innovative technological inputs to different units of SAIL, with special emphasis on cost reduction, quality improvement, product development, energy conservation and automation. During 2010-11, RDCIS pursued 110 R&D projects, out of which 71 projects were planned for completion.

9.7 Fertilizer

9.7.1 Rashtriya Chemicals and Fertilizers Ltd. (RCF)

Several initiatives have been taken for development of recover process of water from present R.O. reject water in sewage Treatment Plants. Fortified fertiliser NPK 15 15 15 with Boron study to find cost effective substitute for proprietary anti precipitating agent Kemfert in Sujala 19 19 19 have been conducted.

9.8 Chemical & Pharmaceutical

9.8.1 Hindustan Organic Chemicals Ltd. (HOCL)

R&D Division is actively involved in research program with Sud-Chemie India Private Limited for re-use of spent catalyst by repelletization of FD catalyst/ Aniline catalyst. This will lead to cost reduction of the product, and more importantly disposal of the waste catalyst through green chemistry route. R&D has also focused its activities in creating Intellectual Property Rights by filing ten patents in India and US under PCT. R&D Division is developing vapour face process of Kerosene fuel and also the accelerated method for in process monitoring of aromatics in Kerosene for ISRO.

9.9 Heavy Engineering

9.9.1 Bharat Heavy Engineering Limited (BHEL)

BHEL's products and systems are technology intensive and R&D / technology development is of strategic importance in its endeavour to become an all-inclusive engineering enterprise. A total of 91 patents and copyrights were granted during the year enhancing the intellectual capital to 1,438 patents & copyrights. Significantly, BHEL

was ranked as the number one company in terms of filing patents and second highest investor in R&D in India by Economic Times Intelligence Group. The company won the coveted CII-Thompson Reuters Innovation Award-2010 in the 'Hi Tech Corporate' category in recognition of its innovation and entrepreneurship in India.

9.10 Medium & Light Engineering

9.10.1 Bharat Dynamics Ltd.

R&D is essential for the future growth of the Company. In the prevailing scenario, acquisition of latest technologies is becoming increasingly difficult due to strategic denials or exorbitantly high cost. Steps have been taken to strengthen the R&D base by increasing the allotment of funds, setting up infrastructure for research, selecting young leaders through campus interviews at IITs, etc. The focus is to develop new products, systems, and equipment through in-house collaborative R&D.

9.10.2 Balmer Lawrie & Co. Ltd. (BL)

R&D and technology upgradation is one of the key objectives of the Company. The efforts in R&D are directed towards maintaining technological & cost leadership leading to customer satisfaction. During the year, the Company took up R&D initiatives for development of lubricants, leather chemicals and industrial packaging. These R&D efforts have helped the Company to introduce new product range, as also to remain cost effective in existing products. R&D expenditure of the Company constituted 0.19% of the turnover during 2010-11.

9.10.3 Bharat Electronics Ltd. (BEL)

R&D is the core strength of BEL; focused attention was given during the year for planning and reviewing of development of technology modules and products. Some of the new products or systems introduced during the year include Akash Weapon System, New generation HUMSA Sonar, Mobile Communication Terminal, ATM based Integrated Shipboard Data Network, Semi Ruggedised Automatic Exchange MK II, Low Power Jammer, Combat Management System, Integrated Fire Detection and Suppression System for BMP 2 or 2K, IRLM Radio, etc.

9.10.4 Electronics Corporation of India Ltd.

R&D initiatives of the Company has resulted in the development of 4.5M dia. Antenna System operating in X Band for Tracking Low Earth Orbit Satellites, Multi element Mono-pulse Tracking Feed System for 11M Earth Station Antenna of IRNSS Project, S Band Feed System for Tracking Radar Antenna, Pulse Power Supplies for copper vapor lasers, Power PROGICON, Modular PLC systems, ECM systems for Fast Hopping signals, Solid State Digital Video Recorder System, T-90 Gyroscope, Next Generation Bulk Encryption Units, Surveillance and Interception systems, BMP-II Integrated Missile Simulator, V.35 Encryptors for Akash and PJ10, STM Bulk Encryptor

Units, Vehicle Monitoring System, Linux based ECSCADA Server, Setting up of reference System for P3A Project and, Fast Data Acquisition System for monitoring of fast process parameters.

9.10.5 Rajasthan Electronics and Instruments Ltd.

The Company has undertaken the following initiatives; development of 3-phase & 1-phase Electronic Energy Meter for use by the Electricity Boards; development of a new Model of Electronic Milk Tester (8031 microcontroller Based) and development of a Milk Collection Station (microprocessor Based Electronics Consisting of an Customized Milk Weighing System, an Electronic Milk Tester and a Two Channel Data Acquisition System). It is also involved in the execution of Photo-identity Cards Project as the District Co-ordinator for two Districts of Gujarat State which involved preparation of Identity Cards for Voters.

9.10.6 HMT Ltd.

The Company has taken R&D initiative for the development of New Generation Tractor Engines to meet the high torque, high fuel efficiency and Bharat 3 emission norms. The Company has developed prototypes for Rotavator 50Hp, HMT 5022 RX with Disc Brake, and new body styling for HMT 5022 RX , 4022 PS Tractors.

9.10.7 HMT Machines Tools Ltd

The Company has its own R&D facilities at its manufacturing units to meet its needs. The focus of R&D is to progressively achieve self-reliance in product technology, upgrading the existing products with additional features. This has resulted in the development of products like CNC Precision Turning Centre – PTC 200, Drill Machine Centre – DMC 400, Centreless Grinding Machine – CLG 310 three Station Bridge Type Tappet Machine with Picoco during 2010-11.

9.11 Transportation Equipment

9.11.1 Cochin Shipyard Ltd. (CSL)

Investments have been made in R&D, Design and graduating into diesel electric propulsion. Impetus is given to "Clean Design" technology ensuring world class emission norms. With facilities, technology and innovation keeping an optimum pace with each other, growth of an international medium size shipyard in India will be complete in the near future.

9.11.2 Goa Shipyard Limited (GSL)

GSL undertakes its own R&D activities for the design and development of its product range. It is one of the few shipyards internationally, which has the capability to carry out basic design of ships. GSL products with in-house R&D are well proven in service and have received accolades from both the owners as well as admirers from India and Overseas. GSL possesses world class CAD / CAM facilities

with Tribon M3 platform having an interface with ERP systems and project management software for efficient functioning of all activities, thus making it virtually a paperless office.

Over the years, GSL has designed and built a wide range of vessels for the defence and commercial sectors with special expertise in designing and building modern Patrol Vessels of Steel & Aluminium. The product range includes Patrol Vessels, Special Purpose Warships, Survey Vessels, Fast Attack Crafts, High Speed GRP Interceptor Boats, Sail Training Ships, Offshore Supply Vessels, Passenger Vessels, Tugs, etc. Other products & services include Simulator for Damage Control on board ships, Training facility for Safety at Sea, repair and modernization of vessels, etc. The yard has also been earmarked for the construction of Mine Counter Measure Vessels (MCMVs) for the Indian Navy.

With GSL's continuous efforts in R&D over the years, the yard has successfully designed and built 35 Knots, 50m Fast Patrol Vessels (FPVs) and 105m Advanced Offshore Patrol Vessels (AOPVs), 90m Offshore Patrol Vessels (OPVs). The vessels are in operation service of Indian Coast Guard.

9.11.3 Hindustan Aeronautics Ltd. (HAL)

Research and Development (R&D) continues to be a priority area for HAL. In the prevailing scenario, acquisition of the latest technologies is becoming increasingly difficult due to strategic denials or exorbitant costs. The Company will continue to develop new products, systems, and equipment through in-house as well as collaborative R&D, for which the Company is committed to sink in sufficient funds. During the year under consideration, the R&D expenditure of the Company stood at ₹ 987 crore.

9.11.4 BEML

As a part of Company's continued technology upgradation programme and R & D efforts, the Company has developed the following new products during 2010-11, namely, BA10 Aircraft Towing Tractor with front cabin, Intermediate Cars for DMRC Metro Cars, Broad gauge Catenary Maintenance Vehicle for Metro projects, 8W Catenary Maintenance Vehicle, GRAD BM21 MBRLS on special 6x6 chassis, Field Artillery Tractor for towing of heavy artillery guns, High Mobility Vehicle mounted on 6x6 chassis integrated with material handling crane.

9.12 Consumer Goods

9.12.1 HLL Lifecare Limited

R & D Centre of HLL has several projects in hand, both in-house and collaborative, with premier academic and research institutions in the country and abroad, viz:- Indian Institute of Technology (IIT), Kanpur; Central Drug

Research Institute (CDRI), Lucknow; SreeChitraTirunal Institute of Medical Sciences & Technology (SCTIMST), Thiruvananthapuram; Regional Cancer Centre (RCC), Thiruvananthapuram and Population Council, USA. These projects cover a wide area of research ranging from development of novel techniques for drug delivery to blood filters to novel contraceptives and cancer care devices. Based on its technological competency, the R&D centre is implementing sponsored projects from various organizations.

Moreover, the objective to develop new and novel healthcare products, HLL aims to translate the laboratory scale technologies available at premier research institutes, to a commercial scale. As a first step towards this, HLL has set up a Technology Business Incubation Centre (TBIC) at Rajiv Gandhi Centre for Biotechnology (RGCBI), Thiruvananthapuram. The immediate goal of TBIC would be to develop novel, fast and easy to use diagnostic methodologies for various infectious diseases. This would further be extended to the development of new healthcare products.

HLL is in the process of setting up a full-fledged world-class R&D Centre in Thiruvananthapuram, to develop innovative products in the area of Reproductive and Contraceptive Research, Devices and Immunobiologicals.

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

The Company has undertaken R&D activities, during the year at BNP, Dewas, CNP, Nashik, ISP, Nashik, SPM, Hoshangabad, IGM, Kolkata, IGM, Mumbai and Corporate Office in the areas of manufacturing process improvement and information technology. The Company has furthermore, initiated efforts for adoption of newer technology of manufacturing of banknote paper by setting-up a JV company in the name of Bank Note Paper Mill India Pvt. Ltd.

9.13 Industrial Development & Technological Consultancy Services

9.13.1 Engineers India Limited (EIL)

The R&D initiatives pursued by EIL during the year included, development of Coal To Liquid (CTL) technology in association with BPCL, and creation of experimental facilities for hydrodynamic studies in cold flow SBCR, syngas cleaning and gasification, development of new amine based solvent for CO₂ removal from Natural Gas and development of simulation software for gas sweetening in association with IIT Kharagpur, CFC technology developed in house is being extended for removal of sulphur compounds from light naphtha.

Mega and Major Projects under Imlementation

There were altogether 607 projects under implementation in the central sector as on 31.3.2011 of which 157 projects were Mega projects (each costing ₹ 1,000 crore and above), 450 Major projects (each costing between ₹ 100 crore and ₹ 1000 crore). The total estimated cost of these 607 projects works out to be ₹ 7,76,715.89 crore. The total expenditure incurred on 607 Mega and Major projects stands at ₹ 3,55,698.64 cores as on 31.3.2011.

Out of these 607 projects in the central sector, 170 projects (costing ₹ 500 crores and above) belonged to Central Public Sector Enterprises (CPSEs). Of these 170 projects, 113 were Mega projects and 57 were Major projects. The total estimated cost in respect of these 210 projects of CPSEs stood at ₹ 4,59,799 crore, while the revised / anticipated cost is equal to ₹ 5,07,459 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 discussed in the paragraphs below.

10.1 Atomic Energy

There were 4 projects in atomic Energy sector under implementation as on 31.3.2011. These projects belonged to the Nuclear Power Corporation of India Limited, Uranium Corporation of India Ltd. and Bhavini Limited and cost above ₹ 500 crore. Project wise detail is given as under:-

10.1.1 Nuclear Power Corporation of India Limited (NPCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1	Kaiga Atomic Power Project 3 & 4 Units, Kaiga, Uttara Kannada, Karnataka	MW 2 x 220	5/2001	10/2009 (12/2010)	4213.00 (4213.00)
2	Kudankulam App, Kudankulam, Tamil Nadu	MW 2 x 1000	12/2001	12/2008 (03/2012)	13171.00 (15824.00)

10.1.2 Uranium Corporation of India Limited (UCIL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Uranium Ore Mine & Processing Plant Kadapa, Andhra Pradesh	–	9/2007	4/2011 (12/2011)	1106.29 (1106.29)

10.1.3 Bhavini Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Prototype Fast Breeder Reactor, Kalpakkam, Tamil Nadu	Mwe 500	9/2003	9/2010 (01/2012)	3492.00 (5677.00)

10.2 Civil Aviation

There were 9 projects in the civil aviation sector under implementation, as on 31.3.2011. Of these, 2 were

in Mega category, 7 in Major category. All these projects belonged to Airport Authority of India Limited. Details of the three (3) projects costing above ₹ 500 crore is given as under :

10.2.1 Airport Authority of India Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	D/O of Terminal Bldg. and Pavement Works in Chennai Airport. Tamil Nadu	–	01/2008	06/2010 (N.A.)	535.00 (535.00)
2.	D/O Kamraj Domestic Ter-Ph-II & Exp. Anna Int. Ter Bldg (KI), Tamil Nadu	ML 1 x 16.84	08/2008	01/2011 (01/2011)	1273.00 (1273.00)
3.	C/o Integrated Passenger Ter. Buld. NSCBI Airport, West Bengal	–	08/2008	05/2011 (08/2011)	1942.51 (1942.51)

10.3 Coal

There were 45 projects in the coal sector under implementation, as on 31.3.2011. Of these, 7 were in Mega category, 38 in Major category. These projects belonged

to Central Coal Fields Limited, South-Eastern Coal Fields Limited, Northern Coal Fields Limited, Singareni Colliers Company Limited and Neyveli Lignite Corporation Ltd. The details of 10 projects costing above ₹ 500 crore is given below :

10.3.1 Central Coalfields Limited (CCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Magadh OC (CCL), Jharkhand	[20 MTY]	07/2006	07/2012 (03/2016)	469.78 (706.40)
2.	Rajrappa RCE OCP Jharkhand	[3 MTY]	12/2009	03/2016 (03/2016)	510.85 (510.85)

10.3.2 Neyveli Lignite Corporation (NLC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	TPS-II Expansion Cuddalore Tamil Nadu	MW 2 x 500	10/2004	06/2009 (03/2012)	2030.78 (2453.57)
2.	Barsingsar TPS Bikaner Rajasthan	MW 2 x 250	12/2004	06/2009 (06/2011)	1114.18 (1626.09)
3.	Tuticorin Thermal Power Project	–	05/2008	N.A. (08/2012)	4904.54 (4909.54)

10.3.3 Northern Coalfields Limited (NCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Krishnashila Madhya Pradesh	[4 MTY]	05/2006	03/2010 (03/2013)	789.88 (741.56)
2.	Amlohri EPR Madhya Pradesh	[6 MTY]	05/2006	3/2014 (03/2016)	1352.04 (1143.54)

10.3.4 South-Eastern Coal Fields Limited (SFCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Gevra Expansion OCP Corba Chattisgarh	–	07/2005	03/2010 (03/2014)	1667.55 (2675.67)
2.	Dipka Expansion OCP Korba Chattisgarh	–	07/2005	03/2010 (03/2014)	1268.53 (1943.66)
3.	Kusmunda Expn. OCP Chattisgarh	–	06/2006	03/2013 03/2013	737.65 (1188.31)

10.4 Fertilisers

There were 6 projects in the fertilisers sector under implementation as on 31.3.2011. Of these, 3 were in

Mega category, 3 in Major category. All these projects belonged to National Fertilisers Limited. The details of the three (3) projects costing above ₹ 500 crore is given as under :

10.4.1 National Fertiliser Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Bathinda-Ammonia Plant Feedstock Changeover Project. Bathinda Punjab	–	01/2010	01/2013 (01/2013)	1294.19 (1294.19)
2.	Panipat-Ammonia Plant Feedstock Changeover Project Panipat Haryana	–	01/2010	01/2013 (01/2013)	1292.84 (1292.84)
3.	Nangal-Ammonia Plant Feedstock Project Rupnagar Punjab	–	01/2010	12/2012 (01/2013)	1478.63 (1478.63)

10.5 Mines

There was only one Mega project in the mining sector, as on 31.3.2011. This belonged to National Aluminum

Company Limited (NALCO). Detail of the project is given as under:-

10.5.1 National Aluminum Company Limited (NALCO)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Second Phase Expansion of Nalco Mine, Refinery, Smelter and Captive Power Plant, Koraput, Orissa	[1 x 1500000MT] [1 x 115000MT] [2 x 240MW]	10/2004	12/2008 (05/2011)	4091.51 (4401.76)

10.6 Petroleum

There were 82 projects in the petroleum sector under implementation, as on 31.3.2011. Of these, 40 were in

Mega category and 42 in Major category. These projects belonged to BRPL, BPCL, GAIL, HPCL, IOCL and ONGC. The details of the 57 projects costing above ₹ 500 crore is given as under :

10.6.1 Bharat Petroleum Corporation Limited (BPCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Hydrocracker Revamp & Setting up a new CCR at Mumbai Refinery Maharashtra	–	02/2008	N.A. (01/2012)	825.00 (825.00)
2.	Capacity Exp. Cum Modernisation Ph-II	[9.5 MMTPA]	09/2009	12/2009 (12/2010)	2591.80 (3941.41)

10.6.2 Brahmaputra Crecker & Polymer Ltd.

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Assam Gas Cracker Project Assam	280000 TPA	04/2006	N.A. (04/2012)	5460.61 (5460.61)

10.6.3 Chennai Petroleum Corporation Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	EURO-IV DHD T Tamil Nadu	–	09/2008	05/2011 (12/2011)	2615.69 (2615.69)

10.6.4 Gas Authority of India Limited (GAIL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1..	VijapurDadri-Bawana Oice Line Project Multi State	[78 MMSCMD]	1/2007	11/2009 (01/2011)	5595.31 (3700.00)
2.	Bawana Nangal Pipe Line Project Multi State	524 KM	11/2007	N.A. (12/22011)	1816.07 (1200.00)
3.	Dahej-Vijaipur Pipeline Project II Gujarat	–	11/2007	10/2010 (09/2011)	4403.26 (2500.00)
4.	Compressor Station (Vijaipur & Jhabua) Phase I & II Madhya Pradesh	–	11/2007	04/2011 (12/2011)	1512.00 (975.00)
5.	Compressor Stations (Kailaras & Chainsa) Multi State	–	11/2007	04/2011 (09/2011)	1167.00 (810.00)
6.	Dhabol-Bangalore Pipeline Project Phase-II Multi State	995 KM	06/2009	03/2012 (03/2012)	4543.43 (2500.00)
7.	Jagdishpur-Haldia Pipeline Project Phase-I Multi State	944 KM	07/2009	03/2012 (N.R.)	7596.18 (6652.22)
8.	Petrochemical Complex-II Multi State	–	08/2010	02/2014 (02/2014)	8140.00 (8140.00)

10.6.5 Hindustan Petroleum Corporation Limited (HPCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Guru Govind Singh Refinery Products Evacuation Project Amritsar, Punjab	–	01/2009	12/2010 (12/2010)	605.40 (510.00)
2.	Diesel Hydrotreater Project at Vikash Refinery Andhra Pradesh	–	03/2009	09/2011 (03/2012)	3597.00 (3597.00)
3.	Diesel Hydrotreater Project at Mumbai Refinery Maharashtra	–	03/2009	09/2011 (03/2012)	3284.00 (3284.00)
4.	Resitment of Marketing Installation at Vishakhapatnam, Andhra Pradesh.	–	1/2009	12/2011 (08/2011)	756.00 (756.00)
5.	Installation of FCCU at Mimbai Refinery Mumbai, Maharashtra	[1.46 MMTPA]	3/2007	9/2009 (12/2010)	900.47 (900.47)
6.	Integrated Sugar, Ethanol, Cogen Power Plant at Sugauli and Lauriya Bihar	–	06/2009	12/2010 (06/2011)	613.54 (727.88)

10.6.6 Indian Oil Corporation Limited (IOCL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Residue Upgradation and MS/HSD Quality Improvement Project at Gujrat Gujrat	–	01/2007	N.A. (03/2011)	5693.00 (6825.00)
2.	Paradip Refinery Project Orissa	–	02/2009	N.A. (11/2012)	29777.00 (29777.00)
3.	Paradip-Raipur-Sambalpur-Ranchi Pipeline Multi State	–	08/2009	N.A. (09/2012)	1793.00 (1793.00)
4.	Integrated Offshore Crude Oil Handling Facilities at Paradip Orissa	–	12/2009	N.A. (06/2012)	1492.33 (1492.33)
5.	De-Bottlenecking of SMPL (Salaya-Mathura Crude Pipeline) Maharashtra	–	12/2009	N.A. (08/2013)	1584.00 (1584.00)
6.	Fluidized Catalytic Cracking Unit (FCCU) Revamp at Mathura Refinery Uttar Pradesh	–	07/2010	N.A. (01/2013)	1000.00 (1000.00)
7.	Diesel Hydrogen Treatment Project Bongaingaon, Assam	[2.7 MMTPA]	06/2006	9/2009 (06/2011)	1431.91 (1690.13)

10.6.7 Mangalore Refinery and Petrochemicals Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	MRPL Phase-III Expansion Karnataka	–	08/2008	01/2012 (01/2012)	12412.00 (12160.00)
2.	Polypropylene Unit Karnataka	–	05/2009	07/2012 (07/2012)	1803.78 (1803.78)

10.6.8 Numaligarh Refinery Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Wax Project Assam	–	08/2010	02/2014 (02/2014)	576.60 (576.60)

10.6.9 Oil & Natural Gas Corporation Limited (ONGC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	IOR Iakwa-Lakhmani Assam	6.17 MMT	09/2001	03/2007 (03/2014)	345.10 (663.69)
2.	IOR Geleki Geleki, Assam	3.94 MMT	09/2001	03/2007 (03/2017)	390.09 (1674.11)
3.	Integrated De v of GI and GS-15 Multi State	–	04/2003	04/2006 (05/2011)	429.82 (2218.01)
4.	C2-C3 LPG Recovery from LNG, Dahej Dahej, Gujrat	–	12/2003	05/2008 (02/2011)	900.92 (976.08)
5.	Development of C-Series Fields Maharashtra	6.13 MMT Oil, 15.14 BCM Gas	08/2006	12/2008 (11/2011)	3195.16 (3195.16)
6.	Heera and South Heera Re-development Project Maharashtra	10.87 MMT Oil, 2.67 BCM Gas	09/2006	06/2010 (10/2011)	2305.30 (2305.30)
7.	Development of B-22 Cluster Fields Mumbai, Maharashtra	2.46 MMT Oil, 6.56 BCM Gas	01/2007	09/2010 (04/2012)	2323.40 (2920.82)
8.	Offshore Grid Interconnectivity Project in Mumbai High Mumbai, Maharashtra	–	01/2007	03/2010 (03/2012)	740.02 (740.02)
9.	Construction of New Process Complex MHN Maharashtra	–	01/2007	05/2010 (05/2012)	2853.29 (6326.40)
10.	Development of B-193 Cluster Fields Maharashtra	5.57 MMT Oil, 5.12 BCM Gas	06/2007	08/2010 (06/2012)	3248.78 (5633.44)
11.	Development of B-46 Cluster Field Maharashtra	4.48 BCM Gas	06/2007	07/2010 (05/2012)	1436.21 (1456.96)
12.	Construction of 12 Off –Shore Supply Vessels Multi State	–	06/2007	09/2011 (12/2011)	736.65 (736.65)
13.	Mumbai High South Redevelopment Ph-2 Maharashtra	346 MT	10/2007	05/2010 (03/2013)	5713.03 (8813.41)
14.	Pipeline Replacement Project-2 Multi State	–	12/2007	05/2011 (05/2011)	2553.28 (3796.21)
15.	Heera Reconstruction Maharashtra	–	05/2008	04/2010 (04/2011)	706.70 (706.70)
16.	Revamping of Win Platform at MH Asset Maharashtra	–	05/2008	05/2010 (05/2012)	333.40 (656.51)
17.	North Tapti Gas Field Development Multi State	–	07/2008	03/2011 (05/2011)	589.70 (755.76)
18.	Additional Gas Processing Units at URAN Maharashtra	–	10/2008	12/2011 (01/2013)	1797.35 (890.37)
19.	Mumbai High North Development Phase-II Maharashtra	–	01/2009	09/2012 (09/2012)	7133.39 (7133.39)

20.	Assam Renewal Project for Group A Assam	–	03/2009	03/2013 (03/2013)	2465.15 (2378.86)
21.	Construction of one Multipurpose Support Vessel Multi State	–	01/2010	03/2013 (03/2013)	723.64 (723.64)
22.	Additional Development of D-1 Field Multi State	–	01/2010	12/2011 (06/2012)	2163.64 (2163.64)
23.	Additional Dev. Of D-1 Field Multi State	–	01/2010	06/2012 (06/2012)	2163.64 (2163.64)
24.	Development of Cluster-7 Fields Multi State	–	03/2010	03/2013 (03/2013)	3241.03 (3241.03)
25.	Development of WO-16 Cluster Fields Multi State	–	06/2010	01/2014 (01/2014)	2523.00 (2523.00)
26.	Wind Power Project Gujrat	–	07/2010	06/2012 (06/2012)	1106.00 (1106.00)
27.	Ahmedabad Redevelopment Gujrat	–	11/2010	12/2014 (12/2014)	1916.10 (1916.10)
28.	Ankleswar Redevelopment Gujrat	–	11/2010	12/2014 (12/2014)	2189.63 (2189.63)
29.	Mehesana Redevelopment Gujrat	–	11/2010	04/2015 (04/2015)	3823.00 (3823.00)

10.7 Power

There were 87 projects in the power sector under implementation, as on 31.3.2011. Of these, 44 were in

Mega category and 43 in Major category. All these projects belonged to NHPC, NTPC, NEEPC, SJVNL, PGCIL and THDCL. The details of the 60 projects costing above ₹ 500 crore is given as under :

10.7.1 National Hydro-Electric Power Corporation

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning Original / Anticipated	Cost (₹ In crore) Original / Anticipated
1.	Loktak D/S HEP Manipur	90 MW	12/1999	06/2006 (N.A)	578.62 (578.62)
2.	Parbati HEP Himachal Pradesh	4 x 200 MW	09/2002	09/2009 (07/2014)	3919.59 (3919.59)
3.	Subansiri Lower HEP Arunachal Pradesh	8 x 250 MW	09/2003	09/2010 (12/2013)	6285.33 (6285.33)
4.	Tessta Low Dam Stage III Hydroelectrical Power Project West Bengal	4 x 33 MW	10/2003	03/2007 (05/2012)	768.92 (768.92)
5.	Chamera, Stage-III Himachal Pradesh	3 x 77 MW	08/2005	08/2010 (08/2010)	1405.63 (1405.63)
6.	URI HEP Stage-II J&K	4 x 60 MW	08/2005	11/2009 (11/2011)	1724.79 (1724.79)
7.	Tessta Low Dam HEP Stage-IV West Bengal	4 x 40 MW	09/2005	09/2009 (12/2012)	1061.38 (1061.38)
8.	Parbati HEP Stage-III Himachal Pradesh	4 x 130 MW	10/2005	10/2010 (12/2011)	2304.52 (2304.52)
9.	Nimoo Bazgo Hydroelectric Project J&K	3 x 15 MW	08/2006	08/2010 (09/2011)	611.02 (611.02)
10.	Chutak Hydroelectric Project J&K	4 x 11 MW	08/2006	02/2011 (08/2011)	621.28 (621.28)
11.	Kishan Ganga HEP J&K	3 x 110 MW	07/2007	07/2014 (01/2016)	2238.67 (3642.04)

10.7.2 National Thermal Power Corporation (NTPC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning Original / Anticipated	Cost (₹ In crore) Original / Anticipated
1.	Koldam HEP Bilaspur Himachal Pradesh	4 x 200 MW	10/2002	04/2009 (03/2013)	4527.15 (4527.15)
2.	Sipat STPP Stage-I Bilaspur Chhatisgarh	3 x 660 MW	12/2003	12/2009 (03/2012)	8323.39 (8323.39)
3.	Barh STPP Stage-I Bihar	3 x 660 MW	12/2003	11/2010 (09/2014)	8693.00 (8692.97)
4.	Loharinag-Pal HEP Uttaranchal	4 x 150 MW	06/2006	11/2011 (12/2012)	2895.10 (2895.10)
5.	Farakka STPP Stage-III West Bengal	500 MW	07/2006	08/2010 (03/2011)	2570.44 (2570.44)
6.	Tapovan-Vishnugad HEP Madhya Pradesh	500 MW	08/2006	02/2010 (12/2010)	2448.50 (2448.49)
7.	National Capital Thermal Power Stage-II Uttar Pradesh	2 x 490 MW	10/2006	10/2010 (07/2010)	5135.33 (5135.33)
8.	Tapovan-Vishnugad HEP Uttaranchal	4 x 130 MW	11/2006	03/2013 (02/2014)	2978.48 (2978.48)
9.	Simhadri STPP Stage-II Andhra Pradesh	2 x 500 MW	08/2007	05/2011 (12/2011)	5103.39 (5038.53)
10.	Mouda STPP Nagpur, Maharashtra	2 x 500 MW	11/2007	08/2012 (11/2012)	5459.28 (6010.89)
11.	Bongaigaon Thermal Power Project Assam	3 x 250 MW	01/2008	07/2011 (04/2013)	4375.35 (4375.35)
12.	Barh STPP Stage-II Bihar	2 x 660 MW	02/2008	08/2013 (10/2013)	7341.04 (7341.04)
13.	Vindhyachal STTP Stage-IV Madhya Pradesh	2 x 500 MW	01/2009	10/2012 (12/2012)	5915.00 (5915.00)
14.	Rihand STTP Stage-III Uttar Pradesh	2 x 500 MW	01/2009	10/2012 (12/2012)	6230.81 (6230.81)

10.7.3 North East Electric Power Corporation

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning Original / Anticipated	Cost (₹ In crore) – Original / Anticipated
1.	Tuirial HE Project Aizwal Mizoram	60 MW	07/1998	07/2006 (01/2014)	368.72 (913.63)
2.	Kameng Hydroelectric Project West Kameng Arunachal Pradesh	4 x 150 MW	12/2004	05/2013 (06/2016)	2496.90 (2496.90)
3.	Pare Hydro Electric Project Papum Pare Arunachal Pradesh	2 x 110 MW	12/2008	08/2013 (08/2013)	573.99 (573.99)
4.	Tripura Gas Power Project Tripura	101 MW	07/2009	01/2012 (07/2013)	421.01 (623.44)

10.7.4 Power Grid Corporation of India Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning Original / Anticipated	Cost (₹ In crore) Original / Anticipated
1.	Kaiga 3 and 4 Transmission system Karnataka	759 CKM	03/2005	12/2007 (N.A.)	596.45 (947.96)
2.	Kudankulam-APP Trans System Tamil Nadu	1831 CKM	05/2005	11/2008 (03/2012)	1779.29 (1946.85)
3.	Transmission SY. Associated with Barh Gener. Project Bihar	3 x 660 MW	12/2005	09/2009 (10/2011)	3779.46 (3725.13)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning Original / Anticipated	Cost (₹ In crore) Original / Anticipated
4.	East-West Transmission Corridor Strengthening Scheme Multi State	1149 CKM	06/2006	06/2009 (06/2011)	803.70 (803.76)
5.	Transmission System Associated with Parbati-III HEP Himachal Pradesh	537 CKM	07/2006	01/2010 (11/2011)	557.24 (639.52)
6.	Western Region Strengthening Scheme-II Rajasthan	—	07/2006	07/2010 (12/2011)	5221.23 (4978.56)
7.	Eastern Region Strengthening Scheme-I Multi State	1200 CKM	10/2006	10/2009 (06/2011)	975.96 (894.26)
8.	Supplimentary Transmission Associated with DVC and Maithon RBC Multi State	1965 CKM	08/2008	08/2012 (08/2012)	2360.95 (2360.95)
9.	765 KV Pooling Station & Network with DVC and Maithon RBC Multi State	1995 CKM	08/2008	08/2012 (08/2012)	7075.33 (7075.33)
10.	Tr. System Associated with Mundra Ultra Mega Project Multi State	3504 CKM	10/2008	10/2012 (10/2012)	4824.12 (4824.12)
11.	Transmission System Associated with Sasan Ultra Mega Power Project Multi State	2197 CKM	12/2008	12/2012 (12/2012)	7031.88 (7031.88)
12.	Western Region Strengthening Scheme-X Multi State	14 AKM, MVA	02/2009	02/2012 (02/2012)	664.96 (664.96)
13.	Northern Region System Strengthening Scheme-XV Multi State	265 CKM	02/2009	11/2011 (11/2011)	520.48 (520.48)
14.	North-East North Western Interconnector I Project Multi State	KV, 3567 CKM	02/2009	08/2013 (08/2013)	11130.19 (11130.19)
15.	765 KV System for Central Part of Northern Grid Part-I Multi State	868 CKM	02/2009	02/2012 (02/2012)	1347.32 (1347.32)
16.	Northern Region System Strengthening Scheme-XVIII Multi State	340 CKM	02/2009	11/2011 (11/2011)	509.66 (509.66)
17.	765 KV System for Central Part of Northern Region Grid Part-II Multi State	—	07/2009	06/2012 (06/2012)	1736.36 (1736.36)
18.	765 KV System for Central Part of Northern Grid Part-III Multi State	443 CKM	11/2009	05/2012 (05/2012)	1075.12 (1075.12)
19.	System Strengthening in NR Sasan & Mundra Multi State	1309 CKM	12/2009	08/2012 (08/2012)	1216.83 (1216.83)
20.	Trans. System Associated with Pallatana GBPP & BPTS Multi State	1474 CKM	02/2010	12/2012 (12/2012)	2144.00 (2144.00)
21.	Transmission System of Vindhyachal-Iv and Rihad-III Gen Project Multi State	1829 CKM	03/2010	11/2012 (11/2012)	4672.99 (4672.99)
22.	Northern Region Transmission Strengthening Scheme Multi State	460 CKM	03/2010	11/2012 (11/2012)	965.58 (965.58)
23.	Trans System for Development of Pooling Stn. In NR Part of West Bengal and Transfer of Power from Bhu West Bengal	—	04/2010	01/2015 (01/2015)	4404.57 (4404.57)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning Original / Anticipated	Cost (₹ In crore) Original / Anticipated
24.	Transmission System for Phase-I Gen Project In Orissa-Part A Orissa	610 CKM	09/2010	03/2013 (03/2013)	2074.86 (2074.86)
25.	Establishment of Pooling Stations at Rakgarh and Raipur for IPP Generation Projects in Chattisgarh Chhatisgarh	–	12/2010	08/2013 (08/2013)	1719.52 (1719.52)
26.	Transmission System for Phase-I Gen. Project in Orissa-B Orissa	–	12/2010	12/2013 (12/2013)	2743.19 (2743.19)
27.	Transmission System Associated with Krishna Patnam Part-A Andhra Pradesh	–	12/2010	08/2013 (11/2012)	779.21 (779.21)

10.7.5 Satluj Jal Vidyut Nigam Limited (SJVNL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Rampur HEP Simla Himachal Pradesh	6 x 68.87 MW	1/2007	1/2012 (09/2013)	2047.03 (2047.03)

10.7.6 Tehri Hydro Development Corporation Limited

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Koteshwar HEP Tehri Uttaranchal	4 x 400 MW	04/2000	04/2005 (03/2012)	1301.56 (2398.39)
2.	Tehri Pumped Storage Plant Uttaranchal	–	07/2006	07/2010 (03/2015)	1657.00 (2978.86)
3.	Vishnugad Pipalkoti Hydroelectric Project Uttaranchal	444 MW	08/2008	07/2014 (03/2016)	2221.31 (2491.58)

10.8 Shipping & Ports

There were 26 projects in the shipping & Ports sector under implementation, as on 31.3.2011. Of these, 7

were in Mega category and 19 in Major category. These belonged to Mumbai Port Trust, Port Trust and Shipping Corporation of India. The details of the 13 projects costing above ₹ 500 crore is given as under :

10.8.1 Shipping Corporation of India

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Ennore Manali Express way, F/o Special Purpose Vehicle Tamil Nadu	–	10/2002	03/2006 (03/2012)	150.00 (600.00)
2.	Acquisition of 6 Nos. of 57000 DWT Handymax Bulk Carriers Mumbai Maharashtra	6 x 57000 DWT	11/2007	03/2012 (03/2012)	1061.96 (1061.96)
3.	Acquisition of 4 Nos. of 80655 DWT Panamax Bulk Carriers Mumbai Maharashtra	4 x 80665 DWT	08/2008	09/2012 (09/2012)	1066.91 (968.35)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
4.	Acquisition of 4 Nos. of 115000 DWT Crude Oil Carriers Mumbai Maharashtra	4 x 115000 DWT	08/2008	04/2011 (03/2011)	1108.12 (1238.88)
5.	Acquisition of 4 Nos. of 82000 DWT Kamsavmax Bulk Carriers from M/s Jiangsu Eastern Heavy Industries Maharashtra	–	08/2010	12/2012 (12/2012)	612.72 (612.72)
6.	Acquisition of Two(2) Nos. of 317000 DWT Very Large Crude Carriers from M/s. Jiangsu Rongsheng Heavy Maharashtra	–	10/2010	02/2014 (02/2014)	966.46 (966.46)
7.	Acquisition of Three (3) Nos. of 6500 TEU Cellular Container Vessels from M/s. STX Ship Building Co. Ltd. Maharashtra	–	10/2010	12/2013 (12/2013)	1028.10 (1028.10)

10.9 Steel

There were 19 projects under implementation in the steel sector, as on 31.3.2011. Of these, 6 were in Mega

category and 13 in Major category. These projects belonged to NMDC, RINL and SAIL. The details of the nine (9) projects costing above ₹ 500 crore is given as under :

10.9.1 National Mineral Development Corporation(NMDC)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1	Bailadila Iron Ore Deposit-II(B) Chhatisgarh	–	01/2003	N.A. (10/2011)	295.89 (607.17)

10.9.2 Rastriya Ispat Nigam Limited (RINL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
	Expansion of Liquid Steel Capacity from 3 MT to 6.3 MT V'patnam Andhra Pradesh	[3.3 MT]	10/2005	10/2009 (03/2012)	8692.00 (12291.00)

10.9.3 Steel Authority of India (SAIL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Upgradation of Blast Furnace No.2 (Bokaro Steel Plant), Jharkhand	–	10/2007	N.A. (N.A.)	892.32 (892.32)
2.	Rebuilding of Coke Oven Battery No. 1 & 2 (Bokaro Steel Plant) Bokaro, Jharkhand	–	10/2007	04/2010 (09/2011)	500.90 (500.90)
3.	Expansion of Bokaro Steel Plant, Jharkhand	–	01/2008	N.A. (12/2011)	3316.00 (6325.00)
4.	Expansion of Salem Steel Plant, Tamil Nadu	–	01/2008	06/2011 (09/2010)	1902.00 (1902.00)
5.	Expansion of IISCO Steel Plant West Bengal	–	02/2008	09/2010 (03/2012)	14443.00 (14443.00)
6.	Expansion of Rourkela Steel Plant Orissa	–	09/2008	02/2011 (03/2013)	6133.00 (11812.00)
7.	Expansion of Bhilai Steel Plant	–	09/2008	N.A. (03/2013)	5185.00 (17265.00)

10.10 Telecommunication

There were 41 projects under implementation in the telecommunication sector as on 31.3.2011. Of these, 3

were in Mega category and 38 in Major category. These projects belonged to BSNL. The details of the 16 projects costing above ₹ 500 crore is given as under :

10.10.1 Bharat Sanchar Nigam Limited (BSNL)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
1.	Execution of Telecom Network Requirement of Defence Forces Multi State	–	05/2006	03/2009 (N.A.)	1077.00 (1077.00)
2.	Procurement of 10G (40 CHL) DWDM Equipment Multi State	–	08/2006	03/2009 (N.A.)	590.10 (590.10)
3.	GSM Equipment of 900K Lines(2G) and 300K Lines(3G) Ph-5 Rajasthan	2 x 900000 Lines, 3 x 300000 Lines	06/2007	12/2008 (03/2011)	601.49 (601.49)
4.	GSM Equipment of 945000Lines (2G) 225000 Lines (3G) Bihar Phase V.1 telecom Circle Bihar	–	10/2007	10/2008 (02/2011)	366.00 (529.32)
5.	Procurement of 10G 40 CHL (12 CHI Equipped) DWDM Equipment (SDCA Level) Multi State	–	12/2007	03/2010 (12/2010)	545.50 (545.50)
6.	Implementation of FTTH, The State of The Art Access Network, Procurement of GPON Equipment Multi State	–	12/2007	03/2010 (10/2010)	952.88 (952.88)
7.	GSM Equipment of 849862 Lines (2G) 150138 Lines (3G) West Bengal Phase V.1 Telecom Circle West Bengal	–	02/2008	02/2009 (03/2011)	584.33 (584.33)
8.	GSM Equipment of 1867000 Lines (2G) 383000 Lines (3G) Gujrat Phase V.1 Telecom Circle Gujarat	–	08/2008	08/2009 (03/2011)	868.00 (868.00)
9.	GSM Equipment of 3125K Lines (2G) and 625K Lines (3G) Ph-5.1 Maharashtra	–	09/2008	09/2009 (02/2010)	1799.94 (1799.94)
10.	GSM Equipment of 1700000 Lines (2G) 234100 Lines (3G) Karnataka Phase V.1 Telecom Circle Karnataka	–	10/2008	10/2009 (03/2011)	677.75 (719.90)
11.	GSM Equipment of 1900000 Lines (2G) 335500 Lines (3G) Kerala Phase V.1 Telecom Circle Kerala	–	01/2009	01/2010 (02/2011)	848.70 (848.70)
12.	GSM of 1900000 Lines (2G) 401700 Lines (3G) Tamil Nadu Phase V.1 Telecom Circle Tamil Nadu	–	01/2009	N.A. (02/2011)	760.20 (1312.52)
13.	GSM Equipment of 1500000 Lines (2G) 264700 Lines (3G) Andhra Pradesh Phase V.1 Telecom Circle Andhra Pradesh	–	01/2009	01/2010 (02/2011)	922.91 (922.91)

Sl. No.	Project Location	Capacity	Date of approval	Date of commissioning – Original / Anticipated	Cost (₹ in crore) – Original / Anticipated
14.	GSM Equipment of 975000 Lines (2G) 325000 Lines (3G) UP East Phase V.1 Telecom Circle Uttar Pradesh	–	02/2009	02/2010 (02/2011)	625.53 (625.53)
15.	GSM Equipment of 1100000 Lines (2G) UP East Phase V.2 Telecom Circle Uttar Pradesh	–	09/2009	09/2010 (03/2011)	624.75 (624.75)
16.	GSM Equipment of 1625000 Lines (2G) 325000 Lines (3G) MP Phase V.1 Telecom Circle Madhya Pradesh	–	11/2009	11/2010 (03/2011)	916.70 (916.70)

CPSEs UNDER CONSTRUCTION

There are some Central Public Sector Enterprises (CPSEs) which have yet to go on regular production on a commercial scale as they are at construction stage. Many of these CPSEs are subsidiary companies set up by (Holding) CPSEs. Some of these subsidiary companies are 'shell companies' which have been set up tentatively to facilitate the establishment of Ultra Mega Power Projects (UMPP) or similar other Projects. The objective of 'shell companies' for UPMM is to develop large capacities of power generation in the different parts of the country. It brings in the potential investors in UMPP after obtaining the necessary clearances. The Power Finance Corporation

Limited (PFCL) was selected as the Nodal Agency for the development of such power projects by the Central Electricity Authority. Many of the 'shell companies' are subsidiary companies of PFCL.

As on 31.03.2011, there were altogether 28 CPSEs 'under construction', as against 32 as on 31.03.2010. While seven CPSEs 'under construction' existing in 2009-10 have been left out, three CPSEs have been added to this list during the financial year 2010-11. The reasons for excluding the seven enterprises are mentioned in he Table 11.1 below:

Table 11.1

Sl. No.	Name of The Enterprise	Reason for Exclusion
1.	Bhopal Dhule Transmission Company Ltd.	Transferred to M/s. Sterlite Transmission Project Pvt. Ltd.
2.	Indian Vaccine Corporation Ltd.	Became operational in 2010-11
3.	IRCON Infrastructure & Services Ltd.	Became operational in 2010-11
4.	Jabalpur Transmission Co. Ltd.	Transferred to M/s. Sterlite Transmission Project Pvt. Ltd.
5.	Kanti Bijlee Utpadan Nigam Ltd.	Became operational in 2010-11
6.	Power System Operation Corporation Ltd.	Became operational in 2010-11
7.	Raichur Sholar Transmission Co. Ltd.	Transferred M/s. Patel Engineering Ltd.

While the total 'authorised capital' of theses 28 CPSEs stood at ₹ 16143.45 crores, the paid up caoitl stood at ₹ 6131.55 crores as on 31.03.2011. Brief detail of these

enterprises showing their status, date of incorporation, authorized capital and paid up capital are given in the Table 11.2 below:

Table 11.2

(₹ in crore)

S.No.	CPSE	Status	Year of incorporation	Authorised Capital	Paid up up Capital
1.	Air India Engineering Services Limited.	Subsidiary	2004	10	0.05
2.	Bharat Petro Resources JPDA Limited	Subsidiary	2006	15	15
3.	Bhartiya Nabhiya Vidyut Nigam Ltd	Independent Company	2003	5000	3047.82
4.	Bhartiya Rail Bijlee Co Ltd	Subsidiary	2007	1606	480
5.	BHEL Electrical Machines Limited	Subsidiary	2011	15	0.10
6.	Bihar Drugs & Organic Chemicals Ltd.	Subsidiary	1994	0.05	0.03
7.	Brahmaputra Cracker and Polymer Ltd	Subsidiary	2007	1200	324.66
8.	Chhattisgarh Surguja Power Ltd	Subsidiary	2006	0.05	0.05
9.	Coastal Karnataka Power Ltd	Subsidiary	2006	0.05	0.05
10.	Coastal Maharashtra Mega Power Ltd	Subsidiary	2006	0.05	0.05
11.	Coastal Taminadu Power Ltd	Subsidiary	2007	0.05	0.05
12.	CREDA-HPCL Biofuels Ltd	Subsidiary	2008	200	10.58
13.	Dedicated Freight Corridor	Independent Company	2006	4000	559.13
14.	Ghogarpalli Integrated Power Co. Ltd	Subsidiary	2008	0.05	0.05
15.	HPCL Bifuels Ltd	Subsidiary	2009	250	205.52
16.	Jagdishpur paper Mills Ltd.	Subsidiary	2008	5	0.05
17.	Loktak Downstream Hydroelectric Corporation Ltd	Subsidiary	2009	230	60
18.	MJSJ Coal India Ltd	Subsidiary	2008	200	40.10
19.	MNH Shakti Ltd.	Subsidiary	2008	100	25.10
20.	NLC Tamilnadu Power Ltd.	Subsidiary	2006	1800	500
21.	NMDC-CMDC Ltd	Subsidiary	2008	4	1.50

22.	NTPC Hydro Ltd	Subsidiary	2002	500	113.96
23.	Orissa Integrated Power Ltd	Subsidiary	2006	0.05	0.05
24.	Punjab Ashok Hotel Company Limited	Subsidiary	1998	3	2.5
25.	rites Infrastructure Ltd	Subsidiary	2010	5	0.05
26.	Sakhigopal Integrated Power Co. Ltd.	Subsidiary	2008	0.05	0.05
27.	SethusamudramCorp. Ltd	Independent Company	2004	1000	745
28.	Tatiya Andhra Mega Power Ltd	Subsidiary	2009	0.05	0.05
Total				16143.45	6131.55

The status of each enterprise and the projects being executed by them are discussed below:

11.1 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 authorized capital and paid up capital of the company as on 31.03.2011 was ₹10 crore and ₹0.05 crore. The main objectives of the company are (i) to carry on the business activities of providing engineering services to aircraft and the services of repairing, maintaining, servicing and refurbishing of aircrafts and all components and parts thereof, (ii) to carry on the business activities of providing engineering services of aircraft engines, auxiliary power units and the services of repairing, maintaining, servicing and refurbishing of aircraft engines, auxiliary power units and all parts and all components thereof and (iii) 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.

11.2 Bharat PetroResources JPDA Ltd

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 partner, to carry out exploration activities relating to the said block.. It is a wholly owned subsidiary of Bharat Petroleum Corporation Ltd.

During the year, the Company has increased its Authorised share capital from ₹1 crore to ₹15 crore and paid up share capital from ₹5 lakh to ₹15 crore.

The Minimum Work Programme Commitment (MWPC) in the block comprises a Primary Term of exploration phase of 3 years which is extended upto 15th January 2012, a secondary term of two years and a third term of another two years subsequently. The block is currently in the primary term which includes drilling of

four wells in the said block. Of the two wells drilled in the block, there were indications of presence of hydrocarbon in one well but it was found to be sub-commercial. Currently, technical studies and 3D seismic works, being carried out by the vessel “Pacific Explorer” are in progress. Based on the results, the Operator will identify drillable prospects for the balance wells to be drilled, as per the Minimum Work Programm.

11.3 Bharitiya 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 31.3.2011, were ₹5000 crore and ₹3047.85 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 future Fast Breeder Reactors. The project has reached advanced stage of construction with 73% of physical progress.

11.4 Bhartiya Rail Bijlee Company Limited

The company was incorporated on 22nd November, 2007 as a subsidiary company of NTPC Ltd as a Joint Venture (JV) company with Ministry of Railways as partners to undertake various activities related to setting up of a 1000 MW Coal Based Thermal Power Project (4x250 MW). The authorized capital and paid up capital of the company as on 31.3.2011 were ₹1606 crore and ₹480 crore respectively. Out of 1596.94 acres of land to be acquired during the period 1328.15 acres of land has been acquired. The company is in the process of acquiring balance land of 268.79 acres. All major contracts for the for this project have been awarded except that for ‘Locomotives’. As per the agreement, while 90% of power will be allocated to the Indian Railways and the balance 10% power will be allocated to Bihar State Electricity Board.

11.5 BHEL Electrical Machines Limited

BHEL Electrical Machines Limited was incorporated on 19.01.2011 and a certificate of commencement of business was received on 07.03.2011. The authorized capital and paid up capital of the company as on 31.03.2011 is ₹15 crore and ₹0.1 crore. The manufacturing premises alongwith the employees of erstwhile KEL Kasaragod was acquired on 28.03.2011.

11.6 Bihar Drugs & Organic Chemicals Limited

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 and paid up capital of the company as on 31.3.2011, was ₹0.05 crore and 0.03 crore respectively. The Company's Registered, Corporate/Head Office and manufacturing unit are located at Muzaffarpur, Belagarh (Bihar). There is no production activity and the Company is sick and closed since 1996.

11.7 Brahmaputra Cracker and Polymer Limited

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 31.3.2011 was ₹ 1200 crore and ₹ 564 crore respectively. Land required for the project (100%) has been acquired, and handed over by the Government of Assam. Necessary Environmental and Pollution clearances, both from States and MoEF have also been obtained for the project. The Certificate of Commencement of Business for BCPL was issued by ROC, Shillong on 12.09.2007. The Gas Supply agreement with OIL and ONGC for 6.0 and 1.35 MMSCMD respectively and the supply agreement for 160,000 TPA Naptha with NRL are in place, thereby making the feedstock secured for the Plant. The complex has been configured with a capacity of 220,000 tons per annum (TPA) of Ethylene and 60,000 tons per annum of propylene with Natural Gas and Naptha as feedstock. The products from the Petrochemical Complex shall be 22000 tons per annum (TPA) of HDPE/LLDPE, 60000 PA of Polypropylene, 55000 TPA of Raw Pyrolysis Gasoline and 12,500 TPA of Fuel oil. Feedstock for the proposed project would be natural gas and naptha. It is envisaged that OIL will supply 6 MMSCMD of natural gas while ONGC will supply 1.35 MMSCMD upto 2011 and 1 MMSCMD from 2010 onwards while NRL will provide 1.6 lakh tonne of naptha per annum as feedstock. Owing to various reasons, the project is witnessing time and cost overrun.

11.8 Chhattisgarh Surguja Power Limited

Chhattisgarh Surguja Power Ltd. (CSPL) was established in February 2006 as a wholly owned subsidiary (and a shell company) of Power Finance Corporation Ltd. for the development of Ultra Mega Power Project in Chhattisgarh. The authorized capital and paid up capital of the company as on 31.3.2011 are ₹0.05 crore each. To accomplish the Mission of 'Power to All' and for generating 100000 MW during the decade 2002-2012 of the Government of India, the Ministry of Power in association

with Central Electricity Authority and Power Finance Corporation Limited (PFCL) had launched the initiative for development of Ultra Mega power Project of 4000 MW capacity each in the different parts of the country. On behalf of the proposed Ultra Mega Power Project, CSPL has been established to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and clearances for the projects such as water, land and environment clearance, Appointments of Bid process Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB).

11.9 Coastal Karnataka Power Limited

Coastal Karnataka Power Limited was incorporated in February, 2006 under the Companies Act, 1956 as a wholly owned subsidiary (and a shell company) of Power Finance Corporation Limited for the development of Tadri Ultra Mega Power Project in Karnataka. The authorized capital and paid up capital of the Company, as on 31.3.2011, are ₹0.05 crore each. On behalf of the proposed Ultra Mega Power Project, CKPL has been established to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and clearances for the projects such as water, land and environment clearance, appointment of 'bid process' Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB).

11.10 Coastal Maharashtra Mega Power Limited

Coastal Maharashtra Mega Power Ltd.(CMMPL), was incorporated in March,2006 under the Companies Act, 1956 as a wholly owned subsidiary (and a shell company) of 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 31.3.2011 are ₹0.05 crore each. On behalf of the proposed Ultra Mega Power Project, CMMPL has been established to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and clearances for the projects such as water, land and environment clearance, appointment of 'bid process' Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB).

11.11 Coastal Tamil Nadu Power Limited

Coastal Tamil Nadu Power Limited (CTNPL) was incorporated in January, 2007 under the Companies Act, 1956 as a wholly owned subsidiary (and a shell company) of Power Finance Corporation Limited for the development of Cheyyur Ultra Mega Power Project in the state of Tamilnadu. The authorized capital and paid up capital of the company as on 31.3.2011 are ₹0.05 crore each. On

behalf of the proposed Ultra Mega Power Project, CTNPL is to undertake preliminary studies 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.

11.12 CREDA-HPCL Biofuels Limited (CHBL)

CREDA-HPCL Biofuels Limited (CHBL) was incorporated on October 14, 2008 as a subsidiary of Hindustan Petroleum Corporation Limited (HPCL) with equity participation from HPCL and Chhattisgarh State Renewable Energy Development Agency (CREDA) with 74% and 26% shareholdings respectively. The authorized capital and paid up capital of the company as on 31.3.2011, stood at ₹200 crore and ₹10.58 crores respectively. CREDA-HPCL Biofuel Limited, has been set up for plantation and cultivation of jatropha plants. As per JV agreement, the Government of Chhattisgarh shall lease 15000 hectares of vacant waste/barren land to CREDA. Through a separate license agreement, CREDA would lease the land to CREDA-HPCL Biofuel Ltd on terms mutually agreed upon for a period of 30 years for carrying out plantation of Jatropha plants. Upto the year 2010-11, the company has acquired 9720 hectares of land and has planted on 4200 hectares of the land. The jatropha plantations are expected to start giving seeds from the year 2013-14 onwards. As such, there were no revenues from operating activities so far. However, expenses were incurred in respect of operating costs, administrative expenses, etc. Around 1.57 lacs of mandays were generated by the company in the year 2010-11. The company also envisages ensuring and discharging social responsibilities and stakeholders' satisfaction. The company is imparting training to the workforce involved in the cultivation of jatropha.

11.13 Dedicated Freight Corridor Corporation of India Limited

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 and Haryana. DFCCIL is a Government company under the provisions of Section 617 of the Companies Act, 1956 with 100% shareholding held by the Government of India. As against the authorized Share Capital of the company was ₹4000 crores, the paid up share capital of the company as on, 31.3.2011, was 559.13 cores. DFCCIL is a Schedule-'A' CPSE under the administrative control of Ministry of Railways. DFCCIL has been created to undertake planning and development, mobilization of financial resources, construction, maintenance and operation of Dedicated Freight lines covering about 3353 route kms on Eastern Corridor and Western Corridor of Indian Railways. As on date, only two corridors have been sanctioned by the Ministry of Railways for construction. Pre-feasibility studies for an additional four corridors have

already been completed, and Preliminary Engineering cum traffic Survey (PETS) has now been taken up.

11.14 Ghogarpalli Integrated Power Company Limited

Ghogarpalli Integrated Power Company Limited (GIPCL), was incorporated on 22nd May, 2008 as a wholly owned subsidiary of Power Finance Corporation Ltd. to facilitate the development of Ultra Mega Power Project in the state of Orissa. The authorized capital and paid up capital of the company are ₹0.05 crore each, as on 31.3.2011. GIPCL has been established to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and clearances for the projects such as water, land and environment clearance, appointment of Bid process Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB) for the Ultra Mega Power Project.

11.15 HPCL Biofuels Ltd.

HPCL Biofuels Ltd. is a wholly owned subsidiary company of Hindustan Petroleum Corporation Ltd. The Company was incorporated on 16th October, 2009 at Patna, Bihar. As against the Authorized Share Capital of ₹250 crores, the Paid up Share Capital of the company was ₹205.52 cores as on 31.3.2011. The company has set up an integrated sugar, ethanol & co-gen power plants at Sugauli in East Champaran District at Lauriya in West Champaran District at a total cost of ₹727.88 crores. Each of the above plants will have crushing capacity of 3500 TCPD, Distillery capacity 60 KLPD and Co-gen capacity of 20 MW while 50% of juice will be converted in to Sugar, the other 50% of juice will be converted into Ethanol. The Asset Transfer and Long term lease agreement with Government of Bihar was signed on 18th January, 2009. The land for the Mill and for the Farmland for Sugauli unit are 89.37 acres and 200 acres respectively. The Mill land and Farmland for Lauriya unit are 61.34 acres and 164.28 acres respectively.

11.16 Jagdishpur Paper Mills Limited

Jagdishpur Paper Mills Limited was incorporated on 8th May ,2008 as a subsidiary of Hindustan Paper Corporation Ltd. The authorized capital and paid up capital of the company was ₹5 crore and ₹0.05 crore respectively, as on 31.3.2011. The matter of Land Allotment is being taken up with Uttar Pradesh State Industrial Development Corporation. A sum of ₹195 lakhs was paid to M/s. UPSIDC by HPC on behalf of the company towards EMD for allotment of 62.59 acres of land for the project during the year. A total sum of ₹329 lakhs has been paid by HPC on behalf of the company including pre-incorporation and post-incorporation expenses. There are no employees on the rolls of the company. However, two employees of Hindustan Paper Corporation Ltd. were deputed for conducting the company's work.

11.17 Loktak Downstream Hydroelectric Corporation Limited

Loktak Downstream Hydroelectric Corporation Ltd (LDHCL) was incorporated as a Joint Venture (JVC) company of NHPC Ltd. (74% shareholding) and Government of Manipur (26% shareholding) on 23.10.2009 under the Companies Act, 1956, with an authorized share capital of 230 crores and ₹ 60 crores as paid up capital. Its registered office is at Loktak Power Station, Komkeirap, Manipur. The objective of the company is to plan, promote and develop hydroelectric power generation in Manipur. During the year 2010-11 the company has incurred an expenditure of ₹ 612.59 lacs out of its budget estimates of ₹ 695.85 lacs.

11.18 MJSJ Coal Limited

MJSJ Coal Ltd. was incorporated on 13th August, 2008 as a Joint Venture (JV) Company between Mahanadi Coalfields Ltd. (60% share), JSW Steel Ltd. (11% share), JSW Energy Ltd. (11% share), Shyam Metallics & Energy Ltd. (9%share) and Jindal Stainless Ltd. (9% share). The company has been formed in respect of Gopalprasad OCP (Western part of Gopalprasad (W) and Utkal-A of Talcher Coalfield. The normative capacity of the project is 15.00 MTY and peak capacity is 20.00 MTY. The project is located at south central part of Talcher Coalfield. The authorised share capital and paid up share capital of MJSJ Coal Ltd. stood at ₹ 200 crores and ₹ 40.10 crores respectively as on 31.03.2011 .

11.19 MNH Shakti Limited

MNH Shakti Limited is a subsidiary company of Mahanadi Coalfields Limited, which was incorporated and registered under the Companies Act, 1956 on 16th July, 2008. It is a JV of Mahanadi Coalfields Limited, Neyveli Lignite Corporation Limited and Hindalco Limited. As against the authorized share capital of ₹ 100 crores, the paid up capital was ₹ 25.10 crores as on 31.3.2011. The total area of land notified for acquisition for this project is 1914.063 hectares (excluding land required for Resettlement site and Residential colony) and involves villages of Rampur, Malda and Patrapalli in Jharsuguda district (in West Bengal) and villages of Talabira and Khinda in Sambalpur District (in Orissa). As on 31.03.2011, however, there is no land in the physical possession of the company.

11.20 NLC Tamil Nadu Power Limited

NLC Tamilnadu Power Limited (NTPL) was set up in the year 2006. It is a JV company of NLC Ltd., and TNEB for establishing a 2 x 500 MW power plant at Tuticorin, Tamil Nadu at an estimated cost of ₹ 4909.54 crores. The company is at construction stage, and its commercial operation is yet to be commenced. The land for the project (and colony) measuring 1273465 hectares has been allotted by VO Chidambaranar Posrt Trust (VOCPT), and long term Lease Agreement for 30 years has been entered into

between the Company and VOCPT. The contract for the main plant package of Steam Generator, Turbo Generator and Electrostatic Precipitator, has been awarded to BHEL during the month of January 2009. Civil construction, structural fabrication and mechanical erection works are in progress. Piling and civil foundation works, structural fabrication and erection works for junction towers and conveyors in respect of Coal handling package are under progress. The Ministry of Coal has given Coal linkage to this project from Mahanadi Coalfields Limited (MCL) and MCL has issued Letter of Assurance to supply 3 million ton of “F” grade coal per annum for this project. The authorised capital and paid up share capital of the company as on 31.03.2011, stood at ₹ 1800 crores and ₹ 500 crores respectively. The total manpower deployed in the company as on 31.03.2011, was 59.

11.21 NMDC-CMDC Limited

NMDC-CMDC Limited was incorporated and registered under the Companies Act, 1956 on 19.06.2008. The authorized and paid up capital of the company is ₹ 4 crores and ₹ 1.5 crores respectively. During 2010-11 the company achieved considerable progress in obtaining statutory clearances. The Company is yet to commence commercial operations.

11.22 NTPC Hydro Limited

NTPC Hydro Limited was incorporated in 2002, under the Companies Act, 1956 for hydroelectric power generation. It is a wholly owned subsidiary of National Thermal power Corporation Ltd. (NTPC) with its Registered and Corporate Offices at New Delhi. The authorised and paid up share capital stood at ₹ 500 crores and ₹ 113.96 crores respectively as on 31.03.2011. The company is presently executing two projects, namely, Lata Tapovan Hydro Electric Project (171 MW) located in Chamoli District of Uttarakhand and Ramman Hydro Electric Project, Stage-III (120 MW) located in Darjelling District of West Bengal and West Sikkim district of Sikkim. The projects undertaken by the company are in construction stage.

11.23 Orissa Integrated Power Limited

Orissa Integrated Power Limited (OIPL) is one of the SPVs of Power Finance Corporation Ltd. It is a wholly owned subsidiary of Power Finance Corporation Limited for the development of Sundergarh Ultra Mega Power Project in Orissa. It was incorporated on 24th August, 2006. The authorized capital and paid up capital of the company, as on 31.3.2011, are ₹ 0.05 crore each. OIPL has been established to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and clearances for the projects such as water, land and environment clearance, appointment of bid process Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB) for the Ultra Mega Power Project.

11.24 Punjab Ashok Hotel Co. Ltd.

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 11.11.1998. The authorized and paid up capital as on 31.3.2011 was ₹ 3.00 crore and ₹ 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 to own, manage, construct-purchase and operate hotels, restaurants, motels etc and to establish, manage transport unit etc. to develop tourism in Punjab.

11.25 RITES Infrastructure Services Limited

RITES Infrastructure Services Limited (RISL) was incorporated on 27.4.2010 as a wholly owned subsidiary of RITES Ltd. The main objectives of the company are development of infrastructure projects, operation & maintenance of Multi Functional Complexes (MFCs) at/ in the vicinity of identified or prescribed premises of Railway Stations and on sites assigned by the Ministry of Railways. The company obtained the certificate of commencement of business on 1st July, 2010. The paid up share capital of company is ₹ 0.05 crores against the authorised capital of ₹ 5 crores. The Ministry of Railways (MOR) has identified 20 stations for construction of Multi Functional Complexes (MFCs) by RITES and Rail Land Development Authority (RLDA). Since, this is the first year of operation of the company, RITES Ltd. The Holding Company (RITES Ltd.), has been into constructing 14 Multi Functional Complexes (MFCs), on behalf of the RISL. It has started construction works/tendering process on fourteen MFCs sites, namely, Darjeeling, Ernakulam, Guntur, Kottayam, Kurukshetra, Kozhikode, Palkkad , Rajkot, Rameswaram, Ranchi, Tiruchchirappali , Trichur, Vadadore & Visakhapatnam on behalf of the company. The expenditure incurred by the Holding Company upto 31st March, 2011 is of ₹ 68.64 lakhs.

11.26 Sakhigopal Integrated Power Company Limited

Sakhigopal Integrated Power Company Limited (SIPCL) is a SPVs and a wholly owned subsidiary of Power Finance Corporation Limited. It was incorporated on 21.5.2008 under the Companies Act, 1956 for the development of Ultra Mega Power Project in Orissa. The authorized capital and paid up capital of the company as on 31.3.2011 are ₹ 0.05 crore each. SIPCL has been established to undertake preliminary studies and to facilitate tie-ups

of inputs, linkages and clearances for the projects such as water, land and environment clearance, appointment of bid process Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB) for the Ultra Mega Power Project.

11.27 Sethusamudram Corporation Limited

Sethusamudram Corporation Limited (SCL) was incorporated on December, 2004 to develop and operate a navigation channel along the territorial waters of India for connecting Gulf of Mannar with Palk Bay, named as Sethusamudram Channel to enable better movement of various shipping within the territorial waters of India. The prestigious Sethusamudram Ship Channel project was sanctioned by Government of India on 01.06.2005 at a total cost of ₹ 2427.40 crores. It was inaugurated by the Hon'ble Prime Minister of India, on 2nd July, 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. Dredging is required for a length of 89 Km in two stretches, viz. Adam's Bridge area and Palk Bay/Palk Strait area. The designed depth of the channel is 12 m below chart datum. Out of the total estimated quantity of 33.80 M.cum of dredging about 18.90M.cum dredging has been completed. Out of ₹ 1000 crores of authorised capital, ₹ 745 crores has been subscribed by the various stakeholders. While Government of India has contributed ₹ 495 crores towards equity capital, the V.O. Chidambaranar Port Trust and Shipping Corporation of India have contributed ₹ 50 crores each. Dredging Corporation of India , Chennai Port Trust, Ennore Port Limited, Visakhapatnam Port Trust and Paradip Port Trust have contributed ₹ 3crores each.

11.28 Taty Andhra Mega Power Limited

Taty Andhra Mega Power Limited (TAMPL) is one of the SPVs and a wholly owned subsidiary of Power Finance Corporation Limited. It was incorporated on 17.4.2009 under the Companies Act, 1956 for the development of Ultra Mega Power Project in Andhra Pradesh. The authorized capital and paid up capital of the company, as on 31.3.2011, are ₹ 0.05 crore each. TAMPL has been established to undertake preliminary studies and to facilitate tie-ups of inputs, linkages and clearances for the projects such as water, land and environment clearance, appointment of bid process Management Consultant for preparation and evaluation of documents (RFQ/RFP) for selection of developer through International Competitive Bidding (ICB) for the development of Ultra Mega Power Project.

Revival and Restructuring of Sick/Loss Making CPSEs

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. Under the provisions of Sick Industrial Companies (Special Provision) Act (SICA), 1985 the CPSEs have to be referred to Board for Industrial and Financial Reconstruction (BIFR) on their becoming sick/insolvent. The Government, furthermore,

constituted the Board for Reconstruction of Public Sector Enterprises (BRPSE) in 2004 for the revival of sick and loss making CPSE's.

There has been significant improvement in the overall condition of these enterprises in recent years. In comparison to 111 sick CPSEs in March, 2002, there were 45 sick CPSEs in March, 2011 (Table-12.1).

Table 12.1
Loss Making CPSEs (2002-03 to 2010-11)

Year	No. of sick CPSEs*	Accumulated losses of sick CPSEs* (₹ in crore)	No. of sick CPSEs**	No. of Loss making CPSEs, during the year	Aggregate Loss, during the year (₹ in crore)
(1)	(2)	(3)	(4)	(5)	(6)
2002-03	111	76721	—	105	10972
2003-04	100	73487	—	89	8522
2004-05	90	82352	81	73	9003
2005-06	81	83554	75	63	6845
2006-07	74	89064	83	61	8526
2007-08	46	72820	78	54	10303
2008-09	46	68577	73	55	14621
2009-10	46	62828	69	59	16241
2010-11	45	65146	-	62	21693

Note: *As per the definition of BIFR, **As per the definition of BRPSE

12.1 Reasons for 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 socio-economic considerations like protecting employment of workers in early seventies could not be modernized quickly. British India Corporation, Bird Jute & Exports and National Textile Corporation (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 Bharat Wagons & Engineering, 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 green-field companies. These became sick over the years on account of high input cost, lack of finance, technological obsolescence and competition from the 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, Nagaland Pulp & Paper Company Ltd., Jute Corporation of India and Cotton Corporation of India have had macro-economic objectives to serve such as development of backward areas and providing goods and services to farmers at unremunerative prices etc.

In addition to the above reasons, the other problems common to most sick and loss making CPSEs have been poor debt-equity structure, weak marketing strategies and slow decision making process. Attempts have, therefore, been made to overcome "sickness" in these CPSEs through various policy initiatives.

12.2 Sick Industrial Companies (Special Provisions) Act, 1985 (SICA)

The Sick Industrial Companies (Special Provision) Act, 1985 (SICA) brought the CPSEs under its purview in 1991 (made effective from 1992). Under the provisions of SICA, the CPSEs (with atleast five years of registration) whose accumulated losses are equal to or have exceeded their net worth, may be referred to BIFR. Reference to BIFR grants immunity from legal sanctions to the company arising from proceedings from execution of decree against property, suit for recovery of money and suit for enforcement of guarantor in respect of loans, etc. The BIFR, on examination, may either sanction suitable revival/ rehabilitation schemes (in case of enterprises which are viable) or recommend closure (in respect of enterprises considered unviable). During the period of the last twenty years, that is, between 1992 to 2007, 64 CPSEs have been referred to BIFR (Table 12.2). There were no references made to BIFR between 2008 to 2011. The year-wise registration of CPSEs with BIFR is given below:

Table 12.2
Registration of CPSEs with BIFR

Year	No. of CPSEs	Year	No. of CPSEs
1992	30*	2003	2
1993	2*	2004	4*
1994	4*	2005	2
1995	1	2006	1
1996	2	2007	1
1997	3	2008	0
1998	3	2009	0
1999	3	2010	0
2000	3	2011	0
2001	2	Total	64 #
2002	3		

*This includes the subsidiaries of NTC, which has been registered again in 2008 after merger

Since Mandya National Paper Mills Limited has been wound up, Jessop & Co. Ltd. has been privatized, U.P. Drugs and Pharmaceuticals Limited has been transferred to the U.P. Government, all the nine subsidiaries of NTC (Holding) Ltd. merged with NTC (Holding), Indian Iron and Steel Co. Limited and Bharat Refractories Limited (BRL) has merged with SAIL and Praga Tools Ltd. merged with HMT Ltd, these CPSEs have not been included in the list of BIFR referred CPSEs.

Although a total number of 64 CPSEs have been referred to BIFR (uptil 2007), there are only 45 CPSEs that are in operation. Out of the remaining 19 CPSEs, 18 CPSEs are closed and one has ceased to be a CPSE. (Their cases, however, continue to be listed in BIFR). Two CPSEs namely Vignyan Industries Limited and North Eastern Regional Agricultural Marketing Corporation Limited have since been declared 'No Longer Sick'

by the Board. In addition, Bharat Immunologicals and Biologicals Corporation Limited, Hindustan Salts Limited, Maharashtra Elektro-smelt Limited, Hindustan Insecticides Limited and Hindustan Organic Chemicals Limited have been dropped from the list of 'sick industrial CPSEs' 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. Table 12.3 below shows the status of the 64 sick industrial CPSEs, registered with BIFR, as on 31.3.2011.

Table 12.3
Status of CPSEs registered with BIFR
(as on 31.03.2011)

Sl. No.	Particulars	Number
1.	Revival Scheme sanctioned by BIFR	14
2.	Revival Scheme sanctioned by AAIFR	1
3.	Declared no longer sick	2
4.	Dropped on net worth becoming positive	5
5.	Dismissed as non-maintainable	4
6.	Deregistered with BIFR / Others	2
7.	Winding up recommended and closed	14
8.	Winding up recommended	5
9.	Winding up notice issued	1
10.	Failed and re-opened	1
11.	Draft Rehabilitation Scheme (DRS) awaited	9
12.	Remanded by AAIFR	1
13.	Draft Scheme circulated under examination / under process	5
	Total	64

BIFR has already disposed of 48 cases of CPSEs either through sanctioning revival schemes (15cases), or declaring 'no longer sick' (2cases) or dropping due to net worth becoming positive (5cases) or dismissing the cases as non-maintainable (4cases) or Deregistered with BIFR / Others (2 cases) or recommending winding up (19cases) or Winding up notice issued (one case) (Annex-12.1). BIFR is yet to take a view in regard to 16 cases of CPSEs.

The process of appointment of Official Liquidator (OL) for winding up of CPSEs by BIFR has been slow. The process of sanctioning of revival / rehabilitation schemes has also been slow on account of involvement of multiple agencies as well as due to delay in finalization of revival schemes, lack of funds, lack of adequate powers with BIFR, lack of proper monitoring of sanctioned revival schemes and delay in winding up of sick companies etc.

12.3 Strategies for revival / restructuring of sick CPSEs

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) **Man power 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.

12.4 Board for Reconstruction of Public Sector Enterprises (BRPSE)

The Government constituted the Board for Reconstruction of Public Sector Enterprises (BRPSE) vide its Resolution dated 6th December, 2004 as an advisory body to the government to address the task of strengthening, modernizing, reviving, and restructuring of Central Public Sector Enterprises (CPSEs), and advise the Government on strategies, measures and schemes related to them. The Board comprises the Chairman (in the rank of Minister of State), three non-official Members and three 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. Secretary to the Government in the Administrative Ministry/Department concerned with the CPSE taken up for consideration by the Board is a Special Invitee. There is a full-time Secretary for BRPSE in the rank of Additional Secretary

to the Government of India. The Board is located in the Department of Public Enterprises (DPE). DPE provides the necessary secretarial assistance to the Board.

In comparison to BIFR which sanctioned 14 cases of revival (between 1992 to 2007), BRPSE has recommended 59 revival cases (between 2005 to 2011). For the purpose of making a 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 is a 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 its incipient sickness (incurring loss for two consecutive years) and making the CPSE profitable. 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, 69 CPSEs were referable to BRPSE. Up to October, 2011, cases of 67 sick CPSEs have been referred to BRPSE; out of which, the Board has made recommendations in respect of 62 cases. Out of these 62 cases recommended by BRPSE, the Government has approved revival proposals of 43 CPSEs and winding up of 2(two) CPSE's, namely, Bharat Ophthalmic Glass Ltd. and Bharat Yantra Nigam Ltd. involving a total expenditure of ₹. 25,105 crore including ₹ 3874 crore as cash assistance and ₹ 21,231 crore as non-cash assistance. The enterprise-wise details of cash and non-cash assistance in respect of approved proposals of CPSE's are given in Annex-12.2. The case of the remaining 17 CPSEs is under various stages of consideration/revision.

The approval of the Government in respect of the aforesaid 45 CPSEs fall under the following broad categories (Table 12.3).

Table 12.3

S. No.	Category	No. of CPSEs
1	Revival through restructuring package as a PSE	27
2	Revival through joint venture / Disinvestment	9
3	Revival through merger/takeover	7
4	Closure	2
	Total	45

Out of the 45 cases approved by the Government till October, 2011, 15 were approved during 2005-06, 11 cases

were approved during 2006-07, 6 cases were approved during 2007- 08, 5 cases were approved during 2008- 09, 3 cases were approved in 2009-10, 2 cases were approved during 2010-11 and 3 cases have been approved during 2011- 12 (upto October, 2011).

Five cases of CPSEs (Nagaland Pulp & Paper Co., Hindustan Fertilizer Corporation Ltd. (HFCL), Fertilizer Corporation of India Ltd. (FCIL), Birds Jute & Exports Ltd., and ITI Ltd.) have been returned to the concerned administrative Ministries/Departments for further information. Out of these, revival proposals for 4 CPSEs namely Nagaland Pulp & Paper Co., ITI, HFCL & FCIL have been approved directly by the Cabinet Committee on Economic Affairs (CCEA) on the basis of the proposals of their Minisries/Departments.

The Board also reviewed the status of implementation of revival packages sanctioned by the Government in regard to 20 CPSEs as mentioned below:

- i) Central Inland Water Transport Corporation Ltd.,
- ii) Hoogly Dock & Port Engineers Ltd.
- iii) Hindustan Prefab Ltd.,
- iv) Richardson & Cruddas (1972) Ltd.,
- v) Tyre Corporation of India Ltd.,
- vi) Konkan Railway Corporation Ltd.,
- vii) Biecco Lawrie Ltd.,
- viii) National Projects Construction Corporation Ltd.,
- ix) Tungabhadra Steel products Ltd.,
- x) NEPA Ltd.,
- xi) Hindustan Organic Chemicals Ltd.,
- xii) Bengal Chemicals & Pharmaceuticals Ltd.,
- xiii) Hindustan Antibiotics Ltd.,
- xiv) Hindustan Fertilizers Corporation Ltd.,
- xv) Fertilizers Corporation of India Ltd.,
- xvi) Fertilizers & Chemicals Travancore Ltd.,
- xvii) HMT Machine Tools Ltd.,
- xviii) HMT Bearings Ltd.,
- xix) Praga Tools Ltd.,
- xx) Hindustan Salts Ltd.

The Board also reviewed the status of its recommendations in respect of 10 CPSEs as mentioned below:

- i) North Eastern Handicrafts & Handlooms Development Corporation Ltd.
- ii) Indian Drugs & Pharmaceuticals Ltd. (IDPL),

- iii) IDPL (Tamil Nadu) Ltd.,
- iv) Bihar Drugs & Organic Chemicals Ltd.,
- v) Hindustan Fluorocarbons Ltd.,
- vi) Madras Fertilizers Ltd.,
- vii) Brahmaputra Valley Fertilizers Corporation Ltd.
- viii) HMT Ltd.
- ix) HMT Watches Ltd., and
- x) HMT Chinara Watches Ltd.

The Board, furthermore, reviewed the performance of Bharat Sanchar Nigam Ltd., Indian Tourism Development Corporation Ltd., STCL Ltd., Fresh and Healthy Enterprises Ltd., and Sambhar Salts Ltd., suo moto.

12.4.1. Revival through Merger, Transfer, Takeover

The Government approved the transfer of Bharat Heavy Plates and Vessels Ltd. to BHEL on 26.11.2007 and merger of Bharat Refractories Ltd with SAIL on 24.4.2008. The Government also approved the transfer of Bharat Wagon & Engineering Co. Ltd. (BWEL) from D/o Heavy Industries to M/o Railways on 7.2.2008. Its administrative control was transferred to M/o Railways on 13.8.2008. The Government also approved the transfer of administrative control of Hindustan Shipyard Ltd from M/o Shipping to M/o Defence on 24.12.2009. The Government, furthermore approved the transfer of Refractory Unit (at Salem) of Burn Standard Company Ltd.(BSCL) to SAIL under M/o Steel and the transfer of administrative control of BSCL(excluding Refractory unit at Salem) and Braithwaite and Company Ltd. from D/o Heavy Industry to M/o Railways on 10.6.2010.

12.4.2 Turnaround Sick CPSEs

The Government has issued guidelines for declaring a sick CPSE as 'turnaround CPSE'. These guidelines, inter alia, define a turnaround CPSE as one which is in the list of sick CPSEs of BRPSE, has shown profit before tax (PBT) in each of the three preceding accounting years and has a positive net worth after implementation of the revival package.

Out of the 43 CPSEs (including those recommended for mergers), 24 CPSEs have posted profits. Out of these 24 CPSEs, 13 CPSEs have been declared as 'turnaround companies' as they have been in profits(profit before tax) continuously for three years and more (Table 12.4). MECON Ltd., in particular, led the rest in regard to profit (PBT), during the last three years.

Table 12.4
Turnaround CPSEs

(₹ in Crore)

S. No.	Name of the CPSE	Profit Before Tax (PBT)		
		2008-09	2009-10	2010-11
1	Bharat Pumps & Compressors Ltd.	38.84	40.51	19.03
2	Cement Corporation of India Ltd.	53.34	53.63	27.09
3	Heavy Engineering Corporation Ltd.	19.58	30.10	37.62
4	Andrew Yule & Co. Ltd.	11.63	71.24	37.29
5	BBJ Construction Co. Ltd.	3.59	4.46	5.55
6	Bridge & Roof Co. (India) Ltd.	33.26	64.11	87.09
7	Hindustan Insecticides Ltd.	3.79	3.88	2.90
8	MECON Ltd.	73.26	124.15	141.09
9	State Farms Corporation of India Ltd.	18.06	38.08	44.75
10	Mineral Exploration Corporation Ltd.	4.39	20.84	17.05
11	Braithwaite and Co. Ltd.	2.05	2.90	7.65
12	Central Electronics Ltd.	3.66	0.57	0.50
13	Hindustan Prefab Ltd.	8.80	3.79	5.88

Details of the CPSEs Registered with BIFR, as on 31.03.2011

S. No.	Case No. and year of reference	CPSE	Date of Orders
(1)	(2)	(3)	(4)
I. Declared 'No Longer Sick'			
1.	512/1992	Vignyan Industries Ltd., Tarkere (Karnataka)	27.5.2003
2.	503/1997	North Eastern Regional Agri. Marktg. Corpn., Guwahati (Assam)	20.8.2001*
II. Dropped (Positive Network)			
3.	502/1997/ 503/1998	Bharat Immunologicals & Biologicals Corporation Limited, BulandSahar (Uttar Pradesh)	1.8.2002
4.	502/2000	Hindustan Salts Limited, Jaipur (Rajasthan)	22.8.2005 / 15.12.2008
5.	501/2002 / 502/2003	Maharashtra Elektros melt Ltd., Mumbai (Maharashtra)	27.6.2005*
6.	501/2004	Hindustan Insecticides Ltd., New Delhi (Delhi)	18.9.2007 *
7.	501/2005	Hindustan Organic Chemicals Limited, Rasayani, Raigad (Maharashtra)	21.11.2005 / 28.05.2008 *
III. Dismissed as 'Non-maintainable'			
8.	502/1992 / 601/1998	Nagaland Pulp & Paper Co. Ltd., Mokokchung, (Nagaland)	13.11.1995 / 25.5.2007
9.	504/1997	Manipur State Drugs & Pharmaceuticals Ltd., Imphal (Manipur) \$\$	17.11.1997
10.	502/2002	Central Coalfields Ltd., Ranchi (Jharkhand)	29.11.2002*
11.	517/1992/ 504/2002	BieccoLawrie Limited, Kolkata (West Bengal) @	27.3.2003 *
IV. Scheme Sanctioned by AAIFR			
12.	502/1999	Hindustan Vegetable Oils Corpn. Ltd., New Delhi (Delhi) @	7.12.2001 / 23.07.2008
V. Revival Scheme sanctioned			
13.	518/1992	The British India Corpn. Ltd., Kanpur, (Uttar Pradesh) @	17.12.2002/ 29.11.2007
14.	521/1992	Projects and Development India Ltd., Dhanbad (Jharkhand)	26.3.2004 / 19.4.2006 *
15.	523/1992	Tyre Corporation of India Ltd., Kolkata (West Bengal) @	20.2.1997 / 10.3.2008 / 19.05.2009 / 21.12.2009 / 03.03.2010
16.	528/1992	Braithwaite & Co. Ltd., Kolkata (West Bengal) @	17.10.1995 / 29.6.2006 *
17.	531/1992	National Instruments Ltd., Kolkata (West Bengal) %	1.10.2002 / 13.5.2008 / 04.08.2008
18.	509/1993	Instrumentation Ltd., Kota (Rajasthan)	23.12.1998 / 24.05.2006 / 01.10.2009
19.	507/1994	Hindustan Fluorocarbons Ltd., Hyderabad (Andhra Pradesh) @	24.7.2003 *
20.	501/1996	Cement Corporation of India Ltd., New Delhi (Delhi)	05.12.2005 / 21.3.2006 / 17.06.2008*
21.	501/1997	Hindustan Antibiotics Limited, Pune (Maharashtra)	5.6.2007 / 14.10.2008
22.	501/1998 / 501/2000	Eastern Coalfields Limited, Burdwan (West Bengal) @	01.06.1998/ 2.11.2004 / 12.6.2007 *
23.	504/1995 / 502/2001	Bharat Coking Coal Ltd., Dhanbad (Jharkhand)	11.2.2004 / 18.05.2009 / 28.10.2009 *
24.	501/2003	Andrew Yule and Company Ltd., Kolkata (West Bengal) @	20.8.2007/ 30.10.2007*
25.	503/2004	Bharat Heavy Plates and Vessels Limited, Visakhapatnam (Andhra Pradesh)	6.10.2005 / 29.08.2008 / 25.03.2009 / 21.10.2010 *
26.	501/2006	HMT Machine Tools Limited, Bangalore (Karnataka)	2.11.2006 / 12.6.2008
VI. Winding up Recommended			
27.	507/1992	TriveniStructurals Ltd., Allahabad (Uttar Pradesh)	5.6.2003
28.	511/1992	Heavy Engineering Corpn. Ltd., Ranchi (Jharkhand)	6.7.2004 *
29.	514/1992	Orissa Drugs & Chemicals Ltd., Bhubaneswar (Orissa)	8.4.2003 *
30.	503/1995	Hindustan Photofilms Mfg. Co. Ltd., Ootacamund (Tamilnadu)	30.1.2003
31.	502/1996	Maharashtra Antibiotics & Pharma. Ltd., Nagpur (Maharashtra) \$\$	4.7.2000 / 16.12.2008 / 17.06.2010
VII. CPSEs recommended for winding up and have been 'closed' \$\$			
32.	505/1992	Bharat Gold Mines Ltd., Kolar Gold Fields (Karnataka)	12.6.2000

S. No.	Case No. and year of reference	CPSE	Date of Orders
(1)	(2)	(3)	(4)
33.	506/1992	Tannery and Footwear Corporation of India Ltd., Kanpur (Uttar Pradesh)	14.2.1995
34.	508/1992	Cycle Corporation of India Limited, Kolkata (West Bengal) @	10.7.2000
35.	510/1992	Mining and Allied Machinery Corporation Ltd. , Durgapur (West Bengal)	29.6.2001
36.	513/1992	National Bicycle Corporation of India Ltd., Mumbai (Maharashtra) @	20.12.1993
37.	520/1992	Bharat Process and Mechanical Engineers Ltd., Kolkata (West Bengal) @	22.7.1996
38.	524/1992	Weighbird India Limited, Kolkata (West Bengal) @	17.2.1997
39.	526/1992	Bharat Brakes & Valves Ltd., Kolkata (West Bengal) @	27.9.2002
40.	527/1992	Cawnpore Textiles Ltd., Kanpur (Uttar Pradesh) @	19.1.1995
41.	529/1992	Smith Stanistreet & Pharmaceuticals Ltd., Kolkata (West Bengal) @	3.12.2001
42.	532/1992	Bharat Ophthalmic Glass Ltd., Durgapur (West Bengal)	19.6.2003
43.	504/1994	Southern Pesticides Corporation Limited, Hyderabad (Andhra Pradesh)	1.11.2001
44.	506/1994	Rayrolle Burn Ltd., Kolkata (West Bengal) @	13.7.2001
45.	503/1999	Pyrites, Phosphates & Chemicals Ltd., Rohtash (Bihar)	20.11.2002
VII. Winding up Notice Issued			
46.	503/505/2002	Hindustan Cables Ltd., Kolkata (West Bengal)	21.03.2003/ 25.07.2008
VII. Others / Abated / Deregistered from BIFR			
47.	501/1992	Bharat Pumps & Compressors Ltd., Allahabad (Uttar Pradesh)	6.2.2007 *
48.	519/1992	The Elgin Mills Co. Ltd., Kanpur (Uttar Pradesh) @ \$\$	13.3.2007
IX. Declared Sick / / Under Examination / Process /			
49.	503/1992	Indian Drugs and Pharmaceuticals Limited, Gurgaon (Haryana)	28.3.2006 / 29.9.2008
50.	506/1993	National Jute Manufactures Corporation Ltd. Kolkata (West Bengal)	8.7.2004 / 24.11.2008 / 05.03.2009
51.	588/1994	Burn Standard Co. Ltd., Kolkata (West Bengal) @	16.4.2007 / 30.9.2008 / 12.11.2009 *
52.	501/1999	Birds Jute and Exports Ltd., Kolkata (West Bengal) @	24.6.2004 / 07.08.2008
53.	501/2001	Bharat Wagon & Engg. Co. Limited , Patna (Bihar) @	11.2.2004 / 25.11.2008 / 24.06.2009 / 16.11.2009
X. Draft Revival Scheme (DRS) Awaited			
54.	504/1992	Scooters India Ltd., Lucknow (Uttar Pradesh)	1.7.2000 / 17.06.2010
55.	509/1992	Richardson & Crudass (1972) Ltd., Mumbai (Maharashtra) @	24.9.2007 / 04.09.2008 / 27.05.2009 / 10.09.2009
56.	515/1992	Fertilizers Corpn. of India Ltd., New Delhi (Delhi)	2.4.2004 / 12.11.2010
57.	516/1992	Hindustan Fertilizer Corpn. Ltd., New Delhi (Delhi)	1.2.2007 / 05.12.2008 / 26.03.2009 / 19.10.2009
58.	502/1998	NEPA Ltd., Nepanagar (Madhya Pradesh)	29.5.2007 / 15.05.2008 / 26.02.2009 / 11.09.2009 / 21.6.2010
59.	504/2004	ITI Limited, Bangalore (Karnataka)	3.10.2005 / 27.11.2008 / 23.02.2009 / 30.12.2009
60.	505/2004	Tungabhadra Steel Products Limited, Tungabhadra Dam (Karnataka)	4.8.2005 / 11.12.2006 / 09.03.2009 / 24.08.2009
61.	502/2005	HMT Bearings Limited, Hyderabad (Andhra Pradesh)	13.2.2006 / 23.04.2009 / 12.11.2009
62.	501/2007	Madras Fertilizer Ltd., Chennai (Tamilnadu)	02.04.2009 / 15.10.2009 *
XI. Failed & Reopened			
63.	533/1992	Bengal Chemicals & Pharmaceuticals Ltd., Kolkata (West Bengal) @	31.3.1995 / 03.02.2009
XII. Remanded by AAIFR			
64.	538/1992	Bengal Immunity Limited, Kolkata (West Bengal) @ \$\$	25.2.2003 / 31.1.2011

@ Taken over PSEs (23) * Profit (after adjustments) during 2010-11 (19) \$\$ since closed (18) % No More a CPSE(1)

**Cash and Non-cash Assistance approved by the Government in respect of
BRPSE recommended proposals upto 31.10.2011**

S. No.	Name of the CPSE	Assistance (₹. in Crore)		
		Cash #	Non-Cash @	Total
1	Hindustan Salts Ltd.	4.28	73.30	77.58
2	Bridge & Roof Co. (India) Ltd.	60.00	42.92	102.92
3	BBJ Construction Co. Ltd.	--	54.61	54.61
4	HMT Bearings Ltd.	7.40	43.97	51.37
5	Praga Tools Ltd.	5.00	209.71	214.71
6	Heavy Engineering Corporation Ltd.	102.00	1116.30	1218.30
7	Cement Corporation of India Ltd.	184.29	1267.95	1452.24
8	Richardson & Cruddas Ltd.	-	-	-
9	Tungabhadra Steel Products Ltd.	-	-	-
10	Bharat Ophthalmic Glass Ltd. ##	9.80	--	9.80
11	Bharat Pumps and Compressors Ltd.	3.37\$	153.15	156.52\$
12	HMT Machine Tools Ltd.	723.00	157.80	880.80
13	Bharat Heavy Plate Vessels Ltd.	--	---	--\$\$
14	Andrew Yule & Co. Ltd.	-- &	457.14	457.14
15	Instrumentation Ltd.	48.36	549.36	597.72\$\$\$
16	Bharat Yantra Nigam Ltd.##	3.82	7.55	11.37
17	Tyre Corporation of India Ltd.	--	1018.45	1018.45&&
18	NEPA Ltd.	--	--	--@@
19	Burn Standard Company Ltd.@@@	14.16&&&	1139.16	1153.32
20	Scooters India Ltd.	--	--	--****
21	Hindustan Copper Ltd.	--	612.94	612.94
22	Mineral Exploration Corporation Ltd.	-	104.64	104.64
23	Central Inland Water Transport Corporation Ltd.	73.60	280.00	353.60
24	Hooghly Dock & Port Engineers Ltd.	148.08	628.86	776.94
25	Hindustan Shipyard Ltd.	--	--	--###
26	MECON Ltd.	93.00**	23.08	116.08
27	Bharat Refractories Ltd.	--	479.16	479.16
28	NTC including its subsidiaries	39.23	-	39.23
29	British India Corporation Ltd.	338.04	108.93	446.97
30	National Jute Manufactures Corporation Ltd.	483.60	6815.06	7298.66
31	Hindustan Antibiotics Ltd.	137.59	267.57	405.16
32	Bengal Chemicals & Pharmaceuticals Ltd.	207.19	233.41	440.60
33	Hindustan Organic Chemicals Ltd.	250.00	110.46	360.46
34	Hindustan Insecticides Ltd.	-	267.29	267.29
35	Fertilizers & Chemicals (Travancore) Ltd.	-	670.37	670.37
36	Central Electronics Ltd.	-	16.28	16.28
37	Eastern Coal Fields Ltd.	--*	--*	--*
38	State Forms Corporation of India Ltd.	21.21	124.42	145.63
39	Konkan Railway Corporation Ltd.	857.05	3222.46	4079.51
40	Bharat Wagon & Engineering Company Ltd.	52.79~	258.73~	311.52~
41	Braithwaite & Company Ltd.~~	4.00	280.21	284.21
42	National Projects Construction Corporation Ltd.	--	219.43***	219.43***
43	Hindustan Prefab Ltd.	--	128.00	128.00
44	National Film Development Corporation Ltd.	3.00	28.40	31.40
45	BieccoLawrie Ltd.	--	59.60	59.60
	Total	3873.86	21230.67	25104.53

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 Ministry of Finance and the Ministry of Heavy Industries.
- * The revival plan approved by the Government inter alia envisaged non-cash assistance of ₹ 2470.77 crore and waiver of service charges of ₹ 14 crore per annum from 2004-05 from Coal India Ltd.
- \$ In addition ONGC and BHEL would extend cash support to the extent of ₹ 150 crore and ₹ 20 crore respectively.
- ** Excludes continuation of 50% interest subsidy not exceeding ₹ 6.50 crore 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.
- @@ Approved to revive NEPA Ltd through JV route in the private sector and introducing NEPA Ltd. (Disinvestment of ownership) Bill, 2007 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 ₹ 30 crore 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 ₹ 25 crore 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 ₹ 2.30 crore cash assistance and ₹ 5.00 crore non-cash assistance in addition to waiver of interest on GOI loan of ₹ 4.18 crore (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.
- ### Cabinet approved for transfer from M/o Shipping to Ministry of Defence on “as is where basis” and financial restructuring proposal of HSL including its investment requirements will be considered by Ministry of Defence in due course.
- &&& In addition, GOI assistance to Ministry of Railways to liquidate the contingent liabilities of the company upto 31.12.2009 which become due for payment and can not be met from company's own resources or through sale of idle assets.
- ~~ Transferred from D/o Heavy Industry.
- @@@ Transferred to Ministry of Railways. Refractory Unit of Burn Standard Co. Ltd. was transferred to SAIL under Ministry of Steel.
- **** Transfer of entire Govt. equity to suitable identified strategic partner, continue extension of salary support and in principle approval of cleaning the balance sheet at the time of seeking final approval for induction of strategic partner.

* * *

Disinvestment and Listing on Stock Exchanges

The policy of 'disinvestment' in Central Public Sector Enterprises (CPSEs) has evolved over the years. Disinvestment of government equity in CPSEs began in 1991-92. The Industrial Policy Statement of 1991 stated that the Government would divest part of its holdings in select CPSEs. Broadly, the objectives of divestment have been to raise resources, encourage wider public participation and bring in greater market accountability. The chronology of evolution of the policy on disinvestment since 1991-92, with their distinct features is shown at Annex-13.1.

13.1 Public Sector Disinvestment Commission

From 1991-92 to 1996-97, disinvestment in CPSEs was handled by the Department of Public Enterprises (DPE). DPE vide its resolution dated 23.8.1996, 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 30.11.1999. The Commission submitted its report 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 31.10. 2004 and the Commission was wound up.

13.2 Department of Disinvestment

During 1997-98, the subject matter of 'disinvestment in CPSEs' was brought under Department of Economic Affairs (Ministry of Finance). Subsequently, the Department of Disinvestment was constituted in the Ministry of Finance in December, 1999 with the following functions assigned to it:

- (i) All matters relating to disinvestment of Central Government equity from Central Public Sector Undertakings.
- (ii) All matters relating to sale of Central Government equity through offer for sale or private placement in the erstwhile Central Public Sector Undertakings.*
- (iii) Matters relating to decisions on the recommendations of the Disinvestment Commission on the modalities of disinvestment, including restructuring.

- (iv) Matters relating to implementation of disinvestment decisions, including appointment of advisers, pricing of shares, and other terms and conditions of disinvestment.
- (v) Disinvestment Commission.
- (vi) Central Public Sector Undertakings for purposes of disinvestment of Government equity only.
- (vii) Financial Policy in regard to the utilization of the proceeds of disinvestment channelized 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 Central Public Sector Undertakings, shall continue to be handled by the administrative Ministry or Department concerned, where necessary, in consultation with the Department of Disinvestment.*

13.3 Evolution of Disinvestment Policy

The policy of disinvestment has largely evolved through the policy statements of Finance Ministers in their Budget Speeches. It may be construed to be an integral part of the reform triggered post 1990's economic crisis. The policy on disinvestment can be briefly divided into three phases, viz.

- (i) 1991-92 to 1998-99: During this period the focus was on disinvestment of minority shareholding in favour of financial institutions.
- (ii) 1992-2000 to 2003-04: During this period the focus was on disinvestment through strategic sale.
- (iii) Since 2004-05: The focus is on disinvestment of minority stakes in the domestic market to the general public in conjunction with issue of fresh equity by CPSEs.

13.4 Current Policy on Disinvestment

The current policy on disinvestment was approved by the Government on 5th November, 2009. The objective of the disinvestment policy is to develop people's ownership of Central Public Sector Enterprises to share in their wealth and prosperity while ensuring that Government equity does not fall below 51% and Government retains the management control.

Keeping in view the policy on disinvestment, the following approach to disinvestment in CPSEs has been adopted:

- (i) Already listed profitable CPSEs (not meeting the mandatory shareholding of 10%) are to be made compliant by 'Offer for Sale' by Government or by the CPSEs through issue of fresh shares or a combination of both.
- (ii) Unlisted CPSEs with no accumulated losses and having earned net profit in three preceding consecutive years are to be listed.
- (iii) Follow-on public offers would be considered in respect of profitable CPSEs having 10 per cent or higher public ownership, taking into consideration the needs for capital investment of CPSE, on a case by case basis and Government could simultaneously or independently offer a portion of its equity shareholding in conjunction.
- (iv) Disinvestment is to be considered on merits and on a case-by-case basis as each CPSE has a different equity structure; financial strength; fund requirement; sector of operation and factors that do not permit a uniform pattern of disinvestment.

13.5 Advantages of Listing

There are inherent advantages in listing of shares of profitable CPSEs on the stock exchanges as it leads to multilayered oversight mechanism and provides a level playing field to CPSEs with the private sector vis-à-vis accessing resources through the capital market. Listing, furthermore, enhances shareholder value in CPSEs in the following ways: -

- (a) The listed companies are mandated by Company Law/SEBI/ Stock Exchanges to comply with higher disclosures. This brings greater transparency and credibility;
- (b) With the induction of independent directors, management accountability, competencies and performance are enhanced.
- (c) Investor centric research provides a third party professional assessment of risks as well as future prospects to management to help it benchmark its business model with the industry on a regular basis.
- (d) Daily trading volume and prices work as a barometer for the management and operate as a concurrent source of feedback with regard to the impact of managerial decisions as well as shop floor developments. The higher levels of public scrutiny promotes ethical conduct of business and improves corporate culture; and

- (e) An expectation of investors (shareholders) brings pressure upon the management to perform and to unlock the true value of the enterprise.

Listing of profitable CPSEs on the stock exchanges with a mandatory public ownership of at least 10% shareholding has been observed to increase significantly the value of stocks in these enterprises and increases the value of the Government's residual shareholding of also those held by the public post-listing. Listing leads to greater people-ownership of CPSEs, thus encourage participation and sharing the prosperity of CPSEs by the people. The guidelines for listing on The Bombay Stock Exchange may be seen at Annex-13.3.

13.6 Disinvestment (From 2004-05 till January 2012)

A brief review of disinvestment in various CPSEs, since 2004-05 is given below:

National Thermal Power Corporation Limited (NTPC): NTPC Limited had proposed an Initial Public Offering (IPO) through issue of fresh equity of 5.25% of the fully diluted post issue equity of the company. Government on 12th July, 2004 approved disinvestment of 5.25% equity of NTPC out of Government's shareholding in conjunction with the IPO by the company. The IPO was completed in October 2004. An amount of ₹ 2684.07 crore was realized by the Government.

Maruti Udyog Limited (MUL) (Not a CPSU): Government on 2nd September, 2005 approved the proposal for disinvestment of 8% equity in Maruti Udyog Limited. In January 2006 Government sold 8% equity of the company out of its residual shareholding of 18.28% to public sector institutions and public sector banks; through a differential pricing method. Government realized ₹1567.60 crore from this sale. In March 2006 0.01% equity of the company was sold to the employees of the company and the Government realized an amount of ₹ 2.08 crore. Government on 21st December 2006 decided that the Government may disinvest its entire residual shareholding of 10.27% in Maruti Udyog Limited. The shareholding of 10.27% was disinvested in May 2007 through the differential pricing method to Indian Public Sector Financial Institutions, Public Sector Banks and Indian Mutual Funds. The Government realized ₹ 2277.62 crore from this disinvestment.

Power Grid Corporation of India Limited (PGCIL): Government on 8th February, 2007 approved disinvestment of 5% equity of the company out of Government's shareholding along with the fresh issue of equity of 10% of the pre-issue paid-up capital of PGCIL. The IPO was completed in October 2007 and Government realized an amount of ₹ 994.82 crore.

Rural Electrification Corporation Limited (REC): Government on 8th February, 2007 approved disinvestment

of 10% equity of the company out of Government's shareholding along with the fresh issue of equity of 10% of the pre-issue paid-up capital of REC. The IPO was completed in March 2008 and the Government realized an amount of ₹819.63 crore.

NHPC Limited: Government on 8th February, 2007 approved disinvestment of 5% equity of the company out of Government's shareholding along with the fresh issue of equity of 10% of the pre-issue paid-up capital of NHPC Ltd. The IPO was completed in August 2009 and Government realized an amount of ₹2012.85 crore.

Oil India Limited: Government on 30th August, 2007 approved disinvestment of 10% equity of the company out of Government's shareholding along with the fresh issue of equity of 11% of the post-issue paid-up capital of Oil India Limited and Government to simultaneously disinvest 10% equity 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 Government realized an amount of ₹2247.046 crore.

National Thermal Power Corporation Limited (NTPC): Government offered 5% pre Issue paid-up capital of NTPC Limited out of Government's shareholding through follow-on public offering in February 2010 and realized an amount of ₹8480.10 crore.

Rural Electrification Corporation Limited (REC) : Government offered 5% pre Issue paid-up capital of REC Limited out of Government's shareholding in conjunction with issue of fresh equity of 15% by the Company through a follow-on public offering in March 2010 and Government realized an amount of ₹882.52 crore.

NMDC Limited (NMDC) : Government offered 8.38% pre Issue paid-up capital of NMDC Limited out of Government's shareholding through follow-on public offering in March 2010 and realized an amount of ₹9930.42 crores.

SJVN Limited (SJVNL) : Government offered 10.03% pre Issue paid-up capital of SJVN Limited out of Government's shareholding through an Initial Public Offering in May 2010 and realized an amount of ₹1062.74 crore.

Engineers India Limited (EIL): Government offered 10% pre Issue paid-up capital of Engineers India Limited out of Government's shareholding through a follow-on public offering in July 2010 and realized an amount of ₹960 crore.

Coal India Ltd. (CIL): Government offered 10% pre Issue paid-up equity capital of Coal India Ltd. out of Government's shareholding through an initial public offering in October 2010 and realized an amount of ₹15,199 crore.

Power Grid Corporation of India Ltd. (PGCIL): Government offered 10% pre Issue paid-up capital of Power Grid Corporation of India Limited out of Government's shareholding in conjunction with issue of fresh equity of 10% by the Company through a follow-on public offering in November 2010 and realized an amount of ₹3,721.17 crore.

MOIL Limited (MOIL): Government offered 10% pre Issue paid-up equity capital of MOIL Ltd. out of Government's shareholding in conjunction with 5% each by Government of Maharashtra and Government of Madhya Pradesh and realized an amount of ₹618.74 crore.

Shipping Corporation of India Limited (SCIL): Government offered 10% pre Issue paid-up capital of Shipping Corporation of India Limited out of Government's shareholding in conjunction with issue of fresh equity of 10% by the Company through a follow-on public offering and realized an amount of ₹582.45 crore.

Power Finance Corporation (PFC): Government offered 5% pre-issue paid-up capital of Power Finance Corporation Ltd. out of Government's shareholding in conjunction with issue of fresh equity of 15% by the Company through a follow-on public offering and realized an amount of ₹1144.55 crore.

In the Budget 2011-12, disinvestment receipts have been indicated at ₹40,000 crore. Till the end of January 2012 Government has raised an amount of ₹1144.55 crore. The summary of disinvestment receipts since 1991-92 till January, 2012 is at Annexure-1

13.7 National Investment Fund

In January 2005, the Government decided to constitute a "National Investment Fund" (NIF) into which the realization from sale of minority shareholding of the Government in profitable CPSEs would be channelised. The Fund was to 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 Central Public Sector Enterprises that yield adequate returns in order to enlarge their capital base to finance expansion/diversification.

Corpus of NIF: The corpus of the Fund has remained at ₹1814.45 crore being the proceeds from the disinvestment in Power Grid Corporation and Rural Electrification Corporation. The income generated on the same during 2009-10 was ₹110.57 crores and during 2010-11 was ₹128.95 crores. The average return on the corpus, during 2009-10, was 7.03%.

Use of Disinvestment Proceeds: In view of the difficult economic situation caused by the global slowdown of 2008-09 the Government in November 2009 decided to give one time exemption for utilization of proceeds from disinvestment of CPSEs for a period of three years - from April 2009 to March 2012 – i.e. disinvestment proceeds during this period would be available in full for investment in specific social sector schemes decided by the Planning Commission/Department of Expenditure. The status quo ante will be restored from April 2012. However, the existing corpus of the NIF shall remain untouched and continue to be managed by the Fund Managers. The disinvestment proceeds are being used for funding the

capital expenditure under the social sector schemes of the Government, namely:-

- (i) Mahatma Gandhi National Rural Employment Guarantee Scheme
- (ii) Indira Awas Yojana
- (iii) Rajiv Gandhi Gramin Vidyutikaran Yojana
- (iv) Jawaharlal Nehru National Urban Renewal Mission
- (v) Accelerated Irrigation Benefits Programme
- (vi) Accelerated Power Development Reform Programme.

Chronology of the evolution of the policy on disinvestment since 1991-92

Date	Event
1991-92 Interim Budget	Government announced its intention to divest upto 20% of Government equity in selected CPSEs 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 not be 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 has 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, The 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, privatizing nonstrategic ones through gradual disinvestment of strategic sale and devising viable rehabilitation strategies for weak units.
Cabinet decision dated 16.3.1999	Central Public Sector Enterprises (CPSEs) have been classified into strategic and non-strategic areas for the purpose of disinvestment. Strategic CPSEs would be those in the areas of: (a) <i>Arms and ammunitions</i> and the allied items of defense equipment, defense air-crafts and warships; (b) <i>Atomic energy</i> (except in the areas related to the operation of nuclear power and applications of radiation and radio-isotopes to agriculture medicine and non-strategic industries); (c) <i>Railway transport</i> All other CPSEs were to be considered as nonstrategic. For the non-strategic CPSEs, 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 privatized.
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/privatization 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 Enterprises (CPSEs), Central Government owned Cooperative Societies (where Government's ownership is 51% or more) should not be permitted to participate in the disinvestment of other CPSEs 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 finalized 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 at least 51% of the shares along-with 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 realization from sale of minority shareholding of the Government in profitable PSEs would be channelized. 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, healthcare 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)

SUMMARY OF RECEIPTS FROM DISINVESTMENT : 1991-92 TO TILL JANUARY 2012

Year	Budgeted receipt (₹ crore)	Receipts through sale of minority shareholding in CPSEs (₹ crore)	Receipts through sale of majority shareholding of one CPSE to another CPSE (₹ crore)	Receipts through Strategic sale (₹ crore)	Receipts from other related transactions (₹ crore)	Receipts from sale of residual shareholding in disinvested CPSEs / companies (₹ crore)	Total receipts (₹ crore)	Transactions
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 LJMCC.
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.

Year	Budgeted receipt (₹ crore)	Receipts through sale of minority shareholding in CPSEs (₹ crore)	Receipts through sale of majority shareholding of one CPSE to another CPSE (₹ crore)	Receipts through Strategic sale (₹ crore)	Receipts from other related transactions (₹ crore)	Receipts from sale of residual shareholding in disinvested CPSEs / companies (₹ crore)	Total receipts (₹ crore)	Transactions
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 and spill over of ONGC; 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 (₹2366.94 cr) shares to public sector financial institutions, public sector banks and Indian mutual funds and sale of PGCIL (₹994.82 cr) and REC (₹819.63 cr) shares through Offer for Sale.
2008-09	No target fixed	-	-	-	-	-	-	
2009-10	No target fixed	23,552.93	-	-	-	-	23,552.93	(₹2012.85 - NHPC, ₹2247.05 - OIL and NTPC - 8480.098, REC ₹882.52, ₹9330.42 NMDC,)
2010-11	40,000	22,144.21					22,144.21	RS. 1062.74 SJVN, EIL 959.65, COAL INDIA 15199 CR; PGCIL 3721.17, MOIL 618.75; SCI 582.45
2011-12	40,000	1,144.55					1,144.55	₹1144.55 PFC
G.Total		82,199.70	1,317.23	6,344.35	4,005.17	6,398.27	100,264.72	

Note: * Out of ₹5371.11, ₹ 4184 crore constitute receipts from cross purchase of shares of ONGC, GAIL and IOC.

**Out of ₹1479.27, ₹459.27 crore constitute receipts from cross purchase of shares of ONGC, GAIL and IOC.

Guidelines for Listing

Listing means admission of securities to dealings on a recognised stock exchange. The securities may be of any public limited company, Central or State Government, quasi governmental and other financial institutions/corporations, municipalities, etc.

The objectives of listing are mainly to :

- provide liquidity to securities;
- mobilize savings for economic development;
- protect interest of investors by ensuring full disclosures.

The Bombay Stock Exchange (BSE) has a dedicated Listing Department to grant approval for listing of securities of companies in accordance with the provisions of the Securities Contracts (Regulation) Act, 1956, Securities Contracts (Regulation) Rules, 1957, Companies Act, 1956, Guidelines issued by SEBI and Rules, Bye-laws and Regulations of BSE.

BSE has set various guidelines and forms that need to be adhered to and submitted by the companies. These guidelines will help companies to expedite the fulfillment of the various formalities and disclosure requirements that are required at various stages of

- Public Issues
- Initial Public Offering
- Further Public Offering
- Preferential Issues
- Indian Depository Receipts
- Amalgamation
- Qualified Institutions Placements

A company intending to have its securities listed on BSE has to comply with the listing requirements prescribed by it. Some of the requirements are as under :

- I Minimum Listing Requirements for New Companies
- II Minimum Listing Requirements for Companies already Listed on other Stock Exchanges
- III Minimum Requirements for Companies Delisted by BSE seeking relisting on BSE
- IV Permission to Use the Name of BSE in an Issuer Company's Prospectus
- V Submission of Letter of Application
- VI Allotment of Securities
- VII Trading Permission
- VIII Requirement of 1% Security
- IX Payment of Listing Fees
- X Compliance with the Listing Agreement
- XI Cash Management Services (CMS) - Collection of Listing Fees

[I] Minimum Listing Requirements for New Companies

The following eligibility criteria have been prescribed effective August 1, 2006 for listing of companies on BSE, through Initial Public Offerings (IPOs) & Follow-on Public Offerings (FPOs):

1. Companies have been classified as large cap companies and small cap companies. A large cap company is a company with a minimum issue size of ₹10 crore and market capitalization of not less than ₹25 crore. A small cap company is a company other than a large cap company.

a. In respect of Large Cap Companies

- i. The minimum post-issue paid-up capital of the applicant company (hereinafter referred to as "the Company") shall be ₹3 crore; and
- ii. The minimum issue size shall be ₹10 crore; and
- iii. The minimum market capitalization of the Company shall be ₹25 crore (market capitalization shall be calculated by multiplying the post-issue paid-up number of equity shares with the issue price).

b. In respect of Small Cap Companies

- i. The minimum post-issue paid-up capital of the Company shall be ₹3 crore; and
- ii. The minimum issue size shall be ₹3 crore; and
- iii. The minimum market capitalization of the Company shall be ₹5 crore (market capitalization shall be calculated by multiplying the post-issue paid-up number of equity shares with the issue price); and
- iv. The minimum income/turnover of the Company shall be ₹3 crore in each of the preceding three 12-months period; and
- v. The minimum number of public shareholders after the issue shall be 1000.
- vi. A due diligence study may be conducted by an independent team of Chartered Accountants or Merchant Bankers appointed by BSE, the cost of which will be borne by the company. The requirement of a due diligence study may be waived if a financial institution or a scheduled commercial bank has appraised the project in the preceding 12 months.

2. For all companies :
 - a. In respect of the requirement of paid-up capital and market capitalization, the issuers shall be required to include in the disclaimer clause forming a part of the offer document that in the event of the market capitalization (product of issue price and the post issue number of shares) requirement of BSE not being met, the securities of the issuer would not be listed on BSE.
 - b. The applicant, promoters and/or group companies, shall not be in default in compliance of the listing agreement.
 - c. The above eligibility criteria would be in addition to the conditions prescribed under SEBI (Disclosure and Investor Protection) Guidelines, 2000.

[II] Minimum Listing Requirements for Companies already Listed on Other Stock Exchanges

The listing norms for companies already listed on other stock exchanges and seeking listing at BSE, made effective from August 6, 2002, are as under:

1. The company shall have a minimum issued and paid up equity capital of ₹ 3 crore.
2. The company shall have a profit making track record for the preceding last three years. The revenues/profits arising out of extra ordinary items or income from any source of non-recurring nature shall be excluded while calculating the profit making track record.
3. Minimum net worth shall be ₹ 20 crore (net worth includes equity capital and free reserves excluding revaluation reserves).
4. Minimum market capitalisation of the listed capital shall be at least two times of the paid up capital.
5. The company shall have a dividend paying track record for at least the last 3 consecutive years and the dividend should be at least 10% in each year.
6. Minimum 25% of the company's issued capital shall be with Non-Promoter shareholders as per Clause 35 of the Listing Agreement. Out of above Non-Promoter holding, no single shareholder shall hold more than 0.5% of the paid-up capital of the company individually or jointly with others except in case of Banks/Financial Institutions/ Foreign Institutional Investors/Overseas Corporate Bodies and Non-Resident Indians.
7. The company shall have at least two years listing record with any of the Regional Stock Exchanges.
8. The company shall sign an agreement with CDSL and NSDL for demat trading.

[III] Minimum Requirements for Companies Delisted by BSE seeking Relisting on BSE

Companies delisted by BSE and seeking relisting at BSE are required to make a fresh public offer and comply with the extant guidelines of SEBI and BSE regarding initial public offerings.

[IV] Permission to Use the Name of BSE in an Issuer Company's Prospectus

Companies desiring to list their securities offered through a public issue are required to obtain prior permission of BSE to use the name of BSE in their prospectus or offer for sale documents before filing the same with the concerned office of the Registrar of Companies.

BSE has a Listing Committee , comprising of market experts, which decides upon the matter of granting permission to companies to use the name of BSE in their prospectus/offer documents. This Committee evaluates the promoters, company, project , financials, risk factors and several other aspects before taking a decision in this regard.

Decision with regard to some types/sizes of companies has been delegated to the Internal Committee of BSE.

[V] Submission of Letter of Application

As per Section 73 of the Companies Act, 1956, a company seeking listing of its securities on BSE is required to submit a Letter of Application to all the stock exchanges where it proposes to have its securities listed before filing the prospectus with the Registrar of Companies.

[VI] Allotment of Securities

As per the Listing Agreement, a company is required to complete the allotment of securities offered to the public within 30 days of the date of closure of the subscription list and approach the Designated Stock Exchange for approval of the basis of allotment.

In case of Book Building issues, allotment shall be made not later than 15 days from the closure of the issue, failing which interest at the rate of 15% shall be paid to the investors.

[VII] Trading Permission

As per SEBI Guidelines, an issuer company should complete the formalities for trading at all the stock exchanges where the securities are to be listed within 7 working days of finalization of the basis of allotment.

A company should scrupulously adhere to the time limit specified in SEBI (Disclosure and Investor Protection)

Guidelines 2000 for allotment of all securities and dispatch of allotment letters/share certificates/credit in depository accounts and refund orders and for obtaining the listing permissions of all the exchanges whose names are stated in its prospectus or offer document. In the event of listing permission to a company being denied by any stock exchange where it had applied for listing of its securities, the company cannot proceed with the allotment of shares. However, the company may file an appeal before SEBI under Section 22 of the Securities Contracts (Regulation) Act, 1956.

[VIII] Requirement of 1% Security

Companies making public/rights issues are required to deposit 1% of the issue amount with the Designated Stock Exchange before the issue opens. This amount is liable to be forfeited in the event of the company not resolving the complaints of investors regarding delay in sending refund orders/share certificates, non-payment of commission to underwriters, brokers, etc.

[IX] Payment of Listing Fees

All companies listed on BSE are required to pay to BSE the Annual Listing Fees by 30th April of every financial year as per the Schedule of Listing Fees prescribed from time to time.

[X] Compliance with the Listing Agreement

Companies desirous of getting their securities listed at BSE are required to enter into an agreement with BSE called the Listing Agreement, under which they are

required to make certain disclosures and perform certain acts, failing which the company may face some disciplinary action, including suspension/delisting of securities. As such, the Listing Agreement is of great importance and is executed under the common seal of a company. Under the Listing Agreement, a company undertakes, amongst other things, to provide facilities for prompt transfer, registration, sub-division and consolidation of securities; to give proper notice of closure of transfer books and record dates, to forward 6 copies of unabridged Annual Reports, Balance Sheets and Profit and Loss Accounts to BSE, to file shareholding patterns and financial results on a quarterly basis; to intimate promptly to the Exchange the happenings which are likely to materially affect the financial performance of the Company and its stock prices, to comply with the conditions of Corporate Governance, etc.

The Listing Department of BSE monitors the compliance by the companies with the provisions of the Listing Agreement, especially with regard to timely payment of annual listing fees, submission of results, shareholding patterns and corporate governance reports on a quarterly basis. Penal action is taken against the defaulting companies.

[XI] Cash Management Services (CMS) - Collection of Listing Fees

In order to simplify the system of payment of listing fees, BSE has entered into an arrangement with HDFC Bank for collection of listing fees from 141 locations all over the country.

Performance of Public Sector Insurance Companies

Since the opening up of the insurance sector in 1999, the number of participants in the sector has been steadily going up. From six insurers in the year 2000, the number of players has gone up to 48 insurers operating in life, non-life and reinsurance segments (as on 31st March 2011). As many as eight insurance companies (life and non-life insurance) are functioning in the public sector. These enterprises are Life Insurance Corporation of India, National Insurance Company Limited, New India Assurance Company Limited, Oriental Insurance Company Limited, United India Insurance Company Limited, General Insurance Corporation of India, Agriculture Insurance Company of India Limited and Export Credit Guarantee Corporation of India. These 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, with the objective of spreading life insurance much more widely and in particular to the rural areas, with a view to reach all insurable persons in the country, and providing them adequate financial cover at a reasonable cost.

LIC has got 8 Zonal Offices, 111 Divisional Offices, 2048 Branch Offices and around 1123 Satellite offices throughout the length and breadth of the country, with staff strength of about 1.15 lakh people and an agency force of 13.37 lakh people as on 31.03.2011.

LIC offers a wide variety of products to fulfill the needs of different segments of the society, in the competitive market. There were as many as 52 different plans on offer, as on 31.03.2011, including five new plans introduced in the year.

In compliance with the objective of LIC is reach all insurable persons in the country and to provide them with adequate financial cover, the Corporation covered 311.51 lakh policies for a Sum Assured of ₹ 4,13,075.18 crore by way of first insurance during the year 2010-11 as compared to the previous year's achievement of 340.28 lakh policies with a Sum Assured of ₹ 3,82,026.21 crore. The ratio of first insurance to the total business for the year works out to 84.16% and 87.86% in respect of number of policies and Sum Assured respectively.

The Corporation also transacts business abroad, and has branch offices in Fiji, Mauritius and United Kingdom. LIC has also its presence in overseas Insurance

Markets through Joint Venture Companies in a number of countries viz. Bahrain, Nepal, Sri Lanka, Kenya and Saudi Arabia.

The Life Fund, as on 31.03.2011, amounts to ₹ 11,51,200.58 crores. The Corporation made payments of ₹ 8077.66 crore under Death Claim cases, ₹ 49,412.63 crores under Maturity Claims and ₹ 4,996.05 cores under Annuities.

The highlights of the performance of LIC during the financial year 2010-11 are shown in Table 14.1 below:

Table 14.1
Performance of LIC, during 2010-11

SI No.	Item	
1	Individual Policies Sold (nos. in crore)	3.70
2	Market Share in terms of number of Policy (in %)	76.9
3	Total Premium Income(Rs in crore)	2,03,358.05
4	Total Income(Rs in crore)	2,99,272.63
5	Total No. of Death Claims Settled(in Lacs)	9.54
6	Total No. of Maturity Claims Settled(in Lacs)	180.22
7	Total No. of Agents as on 31.3.2011	13,37,064

Some of the social security schemes of Central and State/UT Governments being administered by LIC are discussed below:-

14.1.1 Janashree Bima Yojana

The Janashree Bima Yojana (JBY) was launched in August 2000 (Table 14.2). The scheme has replaced Social Security Group Insurance Scheme (SSGIS) and Rural Group Life Insurance Scheme (RGLIS). The premium for the scheme is ₹ 200/- per member per annum, 50 per cent of which is met out of Social Security Fund. The balance premium is borne by the member and / or the Nodal Agency. As on 31st March 2011, about 2.09 crore persons have been covered under the schemes.

Table 14.2
Benefits under Janashree Bima Yojana

SI No.	Item	Amount
1.	Natural Death	₹ 30,000
2.	On death or total permanent disability due to accident	₹ 75,000
3.	On partial permanent disability due to accident	₹ 37,500

14.1.3 Aam Admi Bima Yojana

Aam Admi Bima Yojana (AABY), a new Social Security Scheme for rural landless household was launched on 2nd October, 2007. The benefits under this scheme are shown in Table 14.3 below. The head of the family or one earning member in the family aged between 18-59 years, of rural landless household, is covered under the scheme. The premium of ₹200/- per person per annum is shared equally by the Central Government and the State Government.

Table 14.3
Benefits under Aam Admi Bima Yojana

SI No.	Items	Amount
1.	Natural Death	₹ 30,000/-
2.	On death due to accident / permanent total disability due to accident(loss of 2 eyes or 2 limbs OR loss of one eye & one limb)	₹ 75,000
3.	On partial permanent disability due to accident (loss of one eye or one limb)	₹ 37,500

A free add-on benefit for the children of the members of AAM ADMI BIMA YOJANA is provided under the scheme in the form of a scholarship at the rate of ₹ 100/- per month. It is given to a maximum of two children studying between IX to XII Standard payable half yearly on 1st July and 1st January each year. During the financial year 2010-2011 scholarship were disbursed to 8,40,568 children amounting to ₹81.85 crore. A total of 1,77,47,480 rural landless households have been provided insurance cover under the scheme as on 31.03.2011.

Table 14.4
Lives Covered and Claims Settled Under AABY

Year	Lives Covered	No. of Claims settled	Amount of Claims settled (In Rs)
2007-2008	42,61,156	-	-
2008-2009	71,71,556	20,680	64,79,65,000
2009-2010	1,30,45,666	38,493	1,25,52,82,500
2010-2011	1,77,47,480	40,780	1,31,53,65,000

14.2 Non-Life Insurance Companies

The General Insurance industry was nationalized in 1972 and 107 insurers were amalgamated and grouped into four Companies, namely, The National Insurance Co. Ltd., The New India Assurance Co. Ltd., The Oriental Insurance Co. Ltd. and United India Insurance Co. Ltd. These four entities were set up as subsidiaries of General Insurance Corporation of India (GIC) which also played the role of Re-insurer. As part of the liberalization process and with the enactment of IRDA Act, 1999, it became necessary to nominate the Indian Re-Insurer under Insurance Act, 1938. GIC was, therefore, notified as Indian Re-Insurer on 03.11.2000 under Section 35 of GIBNA Act, 1972. Through enactment of the General Insurance Business (Nationalization) Amendment Act, 2002, the four PSGICs were delinked from GIC and the holdings of GIC in the four Public Sector General Insurance Companies

(PSGICs) were transferred to the Government. Presently, all the four Public Sector General Insurance Companies are Board run Companies and enjoy operational and functional autonomy.

The detailed particulars of the four Public Sector General Insurance companies, are given below:-

14.2.1 National Insurance Company Limited:

- Incorporated in 1906
- Headquarter at Kolkata
- Formed out of 21 foreign and 11 Indian companies (merged at the time of nationalization in 1972)
- Paid-up share capital is ₹ 100 Crores
- Gross Direct Premium Income (GDPI) in 2010-11 was ₹6,245 crores against GDPI of ₹4,646 crores in 2009-10, showing a growth of 34.42% against a growth of 8.15% in the previous year
- Incurred claim Ratio is 97% for the year 2010-11 against 85% in 2009-10.
- Profit After Tax was ₹75 crores in 2010-11 against ₹220 crores in 2009-10
- No. of Offices : 1,216
- No. of Employees : 15,600
- Foreign operations in Nepal.
- “AAA/STABLE” rating by CRISIL.

14.2.2 The New India Assurance Company Limited:

- Incorporated in 1919
- Headquarter at Mumbai
- Formed out of 32 foreign & Indian companies (merged at the time of nationalization in 1972)
- Paid-up share capital is ₹200 Crores
- Gross Direct Premium Income (GDPI) in 2010-11 stood at ₹8,226 crores against GDPI of ₹7,099 crores in 2009-10, showing a growth of 15.87% against a growth of 9.97% in the previous year
- Incurred claim Ratio is 101% for the year 2010-11 against 90% in 2009-10
- Profit After Tax is ₹(-)422 Crores in 2010-11 against ₹405 Crores in 2009-10
- No. of Officers : 1,088
- No. of Employees : 19,417
- The company operates through a network of 19 Branches, 7 Agencies, 3 Subsidiary Companies and 4 Associate Companies in 20 countries
- “A-”(excellent) rating from AM Best & Co.(Europe)

14.2.3 The Oriental Insurance Company Limited:

- Incorporated in 1947
- Headquarters at New Delhi
- Formed out of 10 Indian & 12 Foreign companies (merged at the time of nationalization in 1972).

- Paid-up share capital is ₹100 Crores
- Gross Direct Premium Income (GDPI) in 2010-11 was ₹5,570 crores against GDPI of ₹4,855 crores in 2009-10, showing a growth of 14.73% against a growth of 19.05% in the previous year.
- Incurred claim Ratio is 88% for the year 2010-11 against 82% in 2009-10
- Profit After Tax was ₹55 Crores in 2010-11 against ₹(-)44 Crores in 2009-10
- No. of Officer : 1,195
- No. of Employees : 15,789
- Foreign operations in Nepal, Dubai & Kuwait
- 'B++'(very good) rating from AM Best & Co.(Europe)

14.2.4 United India Insurance Company Limited:

- Incorporated in 1938
- Headquarter at Chennai
- Formed out of 12 Indian companies, 4 cooperative societies & Indian operations of 5 foreign companies (merged at the time of nationalization in 1972)
- Paid-up share capital is ₹150 Crores
- Gross Direct Premium Income (GDPI) in 2010-11 was ₹6,377 Crores against GDPI of ₹5,239 Crores in 2009-10 showing a growth of 21.71% against a growth of 22.47% in the previous year
- Incurred claim Ratio is 86% for the year 2010-11 against 79% in 2009-10
- Profit After Tax was ₹131 Crores in 2010-11 against 708 Crores in 2009-10
- Dividend for the year 2010-11 is ₹30 Crores
- No. of Offices : 1,437
- No. of Employees : 17,134
- Rated AAA by ICRA

14.2.5 The public sector General Insurance Companies provide coverage for insurance other than Life such as, Fire, Marine (Cargo & Hull), Motor, Workmen's Compensation, Personal accident, Aviation, Engineering, Liability, Health, etc

The public sector General Insurance Companies witnessed a growth rate of 20.97 % during 2010-11 collecting a total premium of ₹26,418 crores against ₹21,839 crores during 2009-10. The market share of the public sector General Insurance companies was around 59% during 2010-11. Motor and Health Insurance have been the major drivers of growth.

Strategic alliances spearhead the retail focus of the companies through tie-up arrangements with automobile manufacturers, banks and other entities with large distribution network.

Besides providing cover through traditional policies, the PSGICs are continually evolving themselves to provide

tailor made policies to suit the changing / emerging needs of the customers. Some of the covers specially designed for the benefit of rural and social sector during the year are mentioned below:-

- (i) Insurance of fishermen in Odisha
- (ii) Plantation Insurance
- (iii) Calf rearing Insurance Scheme
- (iv) Insurance of Drip Irrigation – Multi periled lift Insurance Policy
- (v) Emu bird Insurance
- (vi) Elephant Insurance
- (vii) Farmers Package Insurance
- (viii) Ganna Kamgar Bima Yojana
- (ix) Gopal Raksha Scheme

The public sector General Insurance Companies (PSGICs) have various policies to provide insurance cover to the poor for reconstruction of their houses in case of natural calamities like fire, flood, cyclone, earthquake etc. Policies like Gramin Suraksha Micro Policy, Farmers Package Policy, Hut Insurance Policy, Tribal Package Policy, Uni-Micro Policy. Long Term House Policy to cover houses constructed under Weaker Section Housing Scheme for a period of 10 years is also available.

In order to provide affordable healthcare to people living below poverty line (BPL), the Public Sector General Insurance Companies are implementing the Government sponsored Schemes such as Universal Health Insurance Scheme (UHS) introduced with effect from July, 2003 and Rashtriya Swasthya Bima Yojana (RSBY) with effect from October, 2007. The details of the Schemes are discussed below:-

14.2.5.1 Universal Health Insurance Scheme (UHS):

This scheme, launched in July, 2003, is subsidized by the Central Government and is being operated through four Public Sector General Insurance Companies. It was redesigned in July 2004, restricting it to BPL families only. The Scheme was again modified in September, 2008 to enhance the benefits under this Scheme. The modified policy is available for individuals upto the age of 70 years (can be renewed thereafter without any age limit). The Policy covers mainly hospitalization benefits up to a limit of ₹30,000/- for a family on floater basis and Personal Accident cover for death of the earning head of the family for ₹25,000/-. An amount of ₹50/- per day for the period of hospitalization to the earning head / spouse of the family is payable for a maximum of 15 days. The policy also covers pre-existing diseases. It further provides for one maternity benefit with one year waiting period upto a limit of ₹2,500/- for normal delivery and ₹5,000/- for caesarean delivery. The premium payable under the Policy is ₹300/- for an individual, ₹450/- for a family of five members and ₹600/- for a family of seven members including subsidy of ₹200/-, ₹300/- and ₹400/- respectively by Government of India.

14.2.5.2 The Rashtriya Swasthya Bima Yojana (RSBY):

This Scheme was launched in October, 2007 by the Ministry of Labour and Employment. This Scheme is being implemented across the country in a phased manner through the Public Sector General Insurance Companies as well as Private Sector General Insurance Companies. The Scheme provides for hospitalization cover upto ₹30,000/- per family (a unit of five) per annum on a floater basis with the premium being shared by Central Government and the State Government in the ratio of 75:25 respectively. The beneficiary has to pay only ₹30/- towards registration/renewal fee.

14.3 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 authorized 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.

General Insurance Corporation of India (GIC Re) is a leading global reinsurance and risk solution provider with its Registered Office in Mumbai and liaison/area offices in New Delhi, Kolkata and Chennai to cater to the needs of clients in these metro cities. As the 'Indian Reinsurer with a global footprint', GIC Re provides reinsurance support for the 23 general insurance companies (non-life) in India. Internationally, GIC Re leads the reinsurance programmes of insurance companies in SAARC region, African countries and in the Middle East. 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, East Africa Re and Asian Reinsurance Corporation, Bangkok.

GIC Re is now expanding its global presence. The Corporation expects overseas business to contribute 50% of its total revenue by the year 2010. During 2010-11, international business contributed to 40% to its revenue. GIC Re has 4 overseas offices with branch Offices in London, Dubai and Malaysia and a Representative Office in Moscow. GIC Re is also present in the Latin American market with an 'Eventual Reinsurer' status in Brazil. It is also reinsuring life insurance risks in India and Takaful (Shariah-compliant insurance). GIC Re also manages

Marine Hull Pool, Indian Terrorism Insurance Pool and India Motor Third Party Insurance Pool for Commercial vehicles on behalf of Indian Insurance industry.

GIC Re is financially strong, as reflected by its high grade ratings from credit rating agencies, rated A- (Excellent) by A M Best & AAA (In) by CARE. GIC Re is also the 5th largest aviation reinsurer globally. During the year 2010-11, the net premium of the Corporation was ₹10512.57 crores as against ₹8777 crores in the previous year. The net incurred claims amounted to ₹8626 crores. Profit before tax was ₹1189.35 crores, as on 31st March 2011. The Corporation has recorded a profit after tax of ₹1033.41 crores as against ₹1775 crores in 2009-10. The total assets and networth was ₹49728.56 crores and ₹9820 crores respectively, as on 31st March, 2011. The present paid up capital of the Corporation is ₹430.00 crores.

14.4 Agriculture Insurance Company of India Limited (AICIL)

The Agriculture Insurance Company of India Limited (AICIL) was promoted with equity participation from General Insurance Corporation of India (35%), NABARD (30%), and four Public Sector General Insurance Companies (i.e. National, New India, Oriental & United India combined 30% @ 8.75% each). Commenced operations from 1.4.2003 with transfer of Crop Insurance Business from General Insurance Corporation of India. It's authorised and paid up capital are ₹1500 crore and ₹200 crore respectively.

National Agricultural Insurance Scheme (NAIS) was introduced in the year 1999-2000, and is being implemented by AICIL. All categories of farmers i.e. Loanee, Non-Loanee, share croppers etc. are eligible to participate. The scheme is compulsory for Loanee and voluntary for Non-Loanee farmers. It is being implemented in 24 states and 2 UTs. Small and marginal farmers are eligible for 10% premium subsidy and the scheme operates on area approach basis.

Claims are calculated based on shortfall in the current season's yield obtained from crop cutting experiments conducted by State Governments under General Crops Estimation Survey (GCES) as compared to threshold yield. All the claims are settled through the banking network.

The Government announced a pilot Modified NAIS (MNAIS) w.e.f. Rabi 2010-11 season in 50 districts. The MNAIS has many improvements viz. Insurance Unit for major crops is village panchayat or other equivalent unit; in case of prevented/ failed sowing claims upto 25 percent of the sum insurance is payable. Post-harvest losses caused by cyclonic rains are assessed at the farm level.

Pilot Weather Based Crop Insurance Scheme (WBCIS) is being implemented with effect from Kharif 2007. The Scheme operates on actuarial basis with premium subsidy contribution from Union and State Governments. 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 and excess rainfall, frost, heat (temperature), relative humidity, wind, speed etc. 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 WBCS is area based and automatic. During the year 2010-11, the Scheme was implemented

in 17 States. The coverage under various schemes during the year 2010-11 are shown in Table 14.5 below:

Besides the above, AICIL has designed various other crop insurance products like Coconut Palm Insurance Scheme (CPIS), Rainfall Insurance Scheme-Coffee (RISC), Rubber Plantation Insurance, Bio-Fuel Plants Insurance, Grapes Insurance, Mango Weather Insurance, Rabi Weather Insurance, and Varsha Bima/ Rainfall Insurance.

Table 14.5
Performance of WBCIS, during 2010-11

Scheme	Farmers Covered (No)	Farmers Benefited (No)	Area insured (ha)	Sum Insured (₹ in crores)	Premium (₹ in crores)	Claims (₹ in crores)
NAIS	17563874	3217655	24021972	34311	1009	2099
MNAIS	336723	46059	311196	667	45	17
WBCIS	6720725	2350543	9543559	9631	882	370