



मंत्री, भारी उद्योग एवं लोक उद्यम  
भारत सरकार, नई दिल्ली - 110011

MINISTER OF HEAVY INDUSTRIES & PUBLIC ENTERPRISES  
GOVERNMENT OF INDIA, UDYOG BHAWAN,  
NEW DELHI - 110011

### Foreword



The Public Enterprises Survey (2012-13) is the 53rd Survey in the series being laid in the Paliament. It presents an overview of the performance of Central Public Sector Enterprises (CPSEs) as on 31.3.2013. There were as many as 277 CPSEs out of which 229 were operating CPSEs as on 31<sup>st</sup> March, 2013. The CPSEs, as a group, continued to perform well during 2012-13.

2. The Gross Turnover of operating CPSEs has increased from ₹18,22,049 crore in 2011-12 to ₹19,45,777 crore in 2012-13 with a growth rate of 6.79 per cent over the previous year. The Agriculture sector recorded the highest growth in turnover of 23.26 percent during 2012-13 over the previous year, followed by 'manufacturing' with 10.15 percent growth and the 'electricity' sector with a growth of 6.18 percent. The 'services' sector showed a decline in revenue of 3.16 percent from operations during 2012-13, whereas it had recorded a significant growth (13.03 percent) in 2011-12.

3. The net profit of profit making CPSEs went up from ₹1,25,929 crore in 2011-12 to ₹1,43,559 crore in 2012-13 registering a growth of 14.00 percent. The loss of loss making CPSEs also increased marginally from ₹27,683 crore to ₹28,260 crore. The rate of growth in loss at 2.08 percent has been considerably less this year as compared to the last year's growth rate of 26.89 percent. Thus, the profit making CPSEs have considerably increased their profit through various measures including considerable gain received from price / tariff revision.

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

5. Financial investment in all the 277 CPSEs as on 31.3.2013 stood ₹850599 crore as compared to ₹729298 crore in the previous year, showing a growth of 16.63 per cent. The CPSEs in the 'services' sector had the highest share in financial investment (50.85 percent) as on 31.3.2013.

6. The CPSEs have become an important choice of investment for both global and domestic investors. During 2012-13 disinvestment of part of Government shareholding was completed in case of 8 CPSEs.

7. Concerted efforts continue to be made by the Department of Public Enterprises for better professionalization of the Boards of CPSEs. During the year 2012-13, proposals for filling up 166 positions of non-official Directors on the Boards of 79 CPSEs were dealt with and suitable recommendations were conveyed to the concerned administrative Ministries/Departments.

8. The sick and loss making CPSEs have greatly benefited from the recommendations of the Board of Reconstruction of Public Sector Enterprises (BRPSE) that was set up in 2004. As compared to 90 sick CPSEs in March 2005, there were 79 sick CPSEs in March 2013. Out of the 47 CPSEs approved for revival, 19 sick CPSEs have been declared turn-around companies as they have posted profits consecutively for three or more years.

9. I congratulate the Department of Public Enterprises for bringing out yet another comprehensive Survey on the performance of Central Public Sector Enterprises.

February, 2014  
New Delhi

  
(PRAFUL PATEL)



सत्यमेव जयते

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



**Kusumjit Sidhu, 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 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. The Report is placed 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 registered in India 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 Public Sector Insurance Companies is included in Volume I of the Survey.

3. In February, 2011, the Ministry of Corporate Affairs (MCA) issued a revised version of Schedule VI for preparing the financial statements of companies (including Government Companies) from Financial Year 2010-11 and onwards. Consequently, the Department of Public Enterprises constituted an Expert Group to recommend suitable changes in the extant Data Sheet of Public Enterprises Survey to accommodate the Revised Schedule VI under the Companies Act 1956 on 1.6.2012. The Committee submitted its report on 23.7.2012. It was subsequently deliberated upon by the executives of CPSEs dealing with finance in the Workshop held on 22.8.2012 by the Department. Like the Survey of 2011-12, the present Public Enterprises Survey (2012-13) is based on the Revised Schedule VI and contains the financial data for the three years of 2010-11, 2011-12 and 2012-13.

4. The Public Enterprises Survey (2012-13) is the 53<sup>rd</sup> 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 2012-13 as well as the data provided on line by these enterprises in the detailed data sheet/questionnaire developed by the Department. The data so compiled have been further analyzed and presented in two separate volumes (i.e. Volume I & II).

5. While **Volume-I** contains the macro appraisal of the performance of CPSEs at the aggregate level in terms of the physical and the financial parameters, **Volume-II** contains enterprise-wise and cognate group-wise data for the three years of 2012-13, 2011-12 and 2010-11. Enterprises-wise data/report consists of summarized balance sheet, summarized profit and loss account, important management ratios and analysis of performance of the individual enterprises.

6. There were altogether 277 CPSEs (excluding 7 Insurance Companies) falling within the scope of the Survey 2012-13 (as on 31.3.2013) as against 260 CPSEs in 2011-12 (as on 31.3.2012).

7. Seventeen (17) new public sector enterprises, namely, Anushakti Vidyut Nigam Limited, Indian Railway Stations Development Corporation Ltd., Delhi Police Housing Corporation Ltd., Powergrid

## Chapter 1

# Performance Overview 2012-13

The Estimates Committee, in their 73rd Annual 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 since 1960-61, Government of India has been bringing out annually a consolidated report on the performance of Central Public Enterprises. The present Report is the 53<sup>rd</sup> Report in series.

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 registered in India are also categorised as CPSEs. The Survey, however, does not cover departmentally run public enterprises, banking institutions, insurance companies and enterprises where in Central Government equity is less than or equal to 50%.

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 277 CPSEs (excluding 7 Insurance Companies) with a total investment of ₹ 8,50,599 crore as on 31<sup>st</sup> March, 2013.

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, (e.g. 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 of India Ltd.), nuclear energy (e.g. Nuclear Power Corporation of India Ltd.), heavy engineering (e.g. BHEL), aviation industry (e.g. Hindustan Aeronautics Ltd. and Air India Ltd.), storage and public distribution system (e.g. Food Corporation of India and Central Warehousing Corporation), shipping and trading (e.g. Shipping Corporation of India Ltd. and State Trading Corporation of India Ltd.) and telecommunication (e.g. BSNL and MTNL).

With economic liberalization, post-1991, sectors that were the 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)

### 1.1 Indian Economy (2012-13) and CPSEs

The CPSEs play a significant role in the growing Indian economy. They influence the growth in the economy and are affected by the overall growth in the economy. Provisional estimates of GDP at market prices in 2012-13 was of ₹ 10020620 crore as against the GDP of ₹ 8974949 crore reported as revised figure for the year 2011-12. Thus GDP recorded a growth rate

of 11.65% at market prices. During this period the Gross Turnover of CPSEs has increased from ₹ 18,22,049 crore to ₹19,45,777 crore. The growth rate of 6.79 per cent in turnover of CPSEs this year is lower than the growth rate of 21.63 per cent registered last year. Notwithstanding this, from the data reported, it is seen that the profit of profit making CPSE increased from ₹1,25,929 crore to ₹1,43,559 registering a growth of 14.00 which is much higher than the growth registered 10.52 % in the year 2011-12. The loss of loss making CPSEs also increased marginally from ₹27,683 crore to ₹ 28,260 crore. The rate of growth in loss has been considerably less this year ( 2.08 %) as compared to the last years (26.89 %). Thus, the profit making CPSEs have considerably increased their profit through various measures including considerable gain received from price / tariff revision. In absolute terms the CPSEs net profit is ₹1,15,298 as against ₹98,246 reported in the year 2011-12, thus recording a growth rate of 17.36 % as against growth rate of 6.64 % in 2011-12. 161 CPSEs had reported profit last year and 64 had reported losses. This year the number of profit making CPSEs have come down to 149 and the number of loss making CPSEs have increased from 64 to 79. Thus, 79 companies pose managerial, financial and technological challenges.

The turnover of petroleum (Refinery & Marketing), Coal, Crude Oil, Electricity (Generation and Transmission), Heavy Engineering, and Contract & Construction showed a significant increase during the year. Significant gains in terms of net profits were made by CPSEs in the Coal, Power Generation, Power transmission, Industrial Development & Technical Consultancy and Financial Services. The net losses, however, increased for CPSEs operating in telecommunication and transportation Services. The highlights of the performance of CPSEs, at the aggregate level, during 2012-13 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 229 operating CPSEs during 2012-13 stood at ₹19, 45,777 crore as compared to ₹18, 22,049 crore in the previous year. The share of earnings through export/

deemed export amounted to 8.03 percent of total turnover during the year, and the CPSEs earned foreign exchange equal to ₹1, 38,150 crore in 2012-13 as compared to ₹1,27,880 crore in 2011-12. The foreign exchange outgo on imports and royalty, know-how, consultancy, interest and other expenditure, on the other hand, decreased from ₹7,33,542 crore in 2011-12 to ₹6,46,262 crore in 2012-13 showing a reduction of 11.90% for the respective period.

The total employee strength in CPSEs stood at 14.04 lakh (excluding contractual workers) in 2012-13 as compared to 14.50 lakh in 2011-12. The total strength of employees in CPSEs has gone down by 45,915 persons due to superannuation, voluntary retirement etc. The salary and wages in all the CPSEs, at the same time went up during the year from ₹1,05,648 crore in 2011-12 to ₹1, 16,375 crore in 2012-13 showing a growth of 10.15%. However, the per employee turnover of CPSEs has increased from ₹ 1.26 crore in 2011-12 to ₹ 1.39 crore in 2012-13.

Like earlier years, the Survey Report takes in to account mainly audited financial statement. However, there are CPSEs that could not get their accounts audited and these are listed in Appendix V. The data furnished by these CPSEs cannot be fully scrutinized and accordingly such data is taken in to account provisionally. This year 52 CPSEs have given unaudited/provisional financial and other data. The Report of 2011-12 too had mentioned that its analysis was based on unaudited / provisional data in respect of 50 CPSEs that were listed in Appendix V of the Volume I of the Report of 2011-12. Bulk of these companies have now given updated / audited status of financial figures and other data and that has resulted in necessary changes in the findings of 2011-12 related performances. For instance, the number of companies reporting losses in the year 2011-12 has increased from 63 out of 225 CPSEs in 2011-12 to 64 out of 229 operating companies in 2012-13. Total income of all CPSEs during 2011-12 is now disclosed to be ₹19,31,150 crore as against ₹18,24,627 reported provisionally last year.

## BOX – 1

### Highlights

- **Total paid up capital** in 277 CPSEs as on 31.3.2013 stood at ₹1,85,282 crore compared to ₹1,63,863 crore as on 31.3.2012 (260 CPSEs), showing a growth of 13.07%.
- **Total investment** (equity plus long term loans) in all CPSEs stood at ₹ 8,50,599 crore as on 31.3.2013 compared to ₹7, 29,298 crore as on 31.3.2012, recording a growth of 16.63%.
- **Capital Employed** (Paid up capital plus reserve & surplus and long term loans) in all CPSEs stood at ₹15,32,007 crore on 31.3.2013 compared to ₹13, 52,970 crore as on 31.3.2012 showing a growth of 13.23 %.
- **Total turnover/gross revenue from operation** of all CPSEs during 2012-13 stood at ₹19, 45,777 crore compared to ₹18,22,049 crore in the previous year showing an increase of 6.79 %.
- **Total income** of all CPSEs during 2012-13 stood at ₹ 19,31,150 crore compared to ₹ 18,04,615 crore in 2011-12, showing an increase of 7.01%.
- **Profit** of profit making CPSEs stood at ₹ 1,43,559 crore during 2012-13 compared to ₹ 1, 25,929 crore in 2011-12 showing a growth of 14.00 %.
- **Loss** of loss incurring CPSEs stood at ₹ 28,260 crore in 2012-13 compared to ₹ 27, 683 crore in 2011-12 showing an increase in loss by 2.08 %.
- **Overall net profit** of all 229 CPSEs during 2012-13 stood at ₹1,15,300 crore compared to ₹98,245 crore during 2011-12 showing an increase of 17.36%.
- **Reserves & Surplus** of all CPSEs went up from ₹ 6,23,671 crore in 2011-12 to ₹ 6, 81,409 cores in 2012-13, showing an increase by 9.26 %.
- **Net worth** of all CPSEs went up from ₹ 7,87,535 crore in 2011-12 to ₹ 8,66,691 crore in 2012-13 registering a growth of 10.05 %.
- **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 ₹1,62,402 crore in 2011-12 to ₹1,62,761 crore in 2012-13, showing an increase of 0.22%.
- **Foreign exchange earnings** through exports of goods and services increased from ₹1,27,880 crore in 2011-12 to ₹1,38,150 crore in 2012-13, showing a growth of 8.03%.
- **Foreign exchange outgo** on imports and royalty, know-how, consultancy, interest and other expenditure decreased from ₹7,33,542 crore in 2011-12 to ₹6,46,262 crore in 2012-13 showing a reduction of 11.90%.
- **CPSEs employed** 14.04 lakh people (excluding contractual workers) in 2012-13 compared to 14.50 lakh in 2011-12, showing a reduction in employees by 3.28 %.
- **Salary and wages** went up in all CPSEs from ₹1,05,648 crore in 2011-12 to ₹1,16,375 crore in 2012-13 showing a growth of 10.15 %.
- **Total Market Capitalisation** 46 CPSEs traded on stock exchanges of India as on 31.03.2013. The total market capitalization of 45 CPSEs based on stock prices on Mumbai Stock Exchange as on 31.03.2012 was ₹ 12,57,792.00 crore and of 46 CPSEs as on 31.03.2013 stood at ₹ 11,16,817.00 crore. There was decrease in market capitalization of CPSEs by -11.21% ( ₹1,40,975.00 crore) as on 31.03.2013 over market capitalization as on 31.03.2012.
- **M\_Cap** of CPSEs as per cent of BSE M\_Cap decreased from 20.24% as on 31.3.2012 to 17.64% as on 31.3.2013.

**Box-2**  
**Macro-View of Performance of Operating CPSEs**

(₹ in crore)

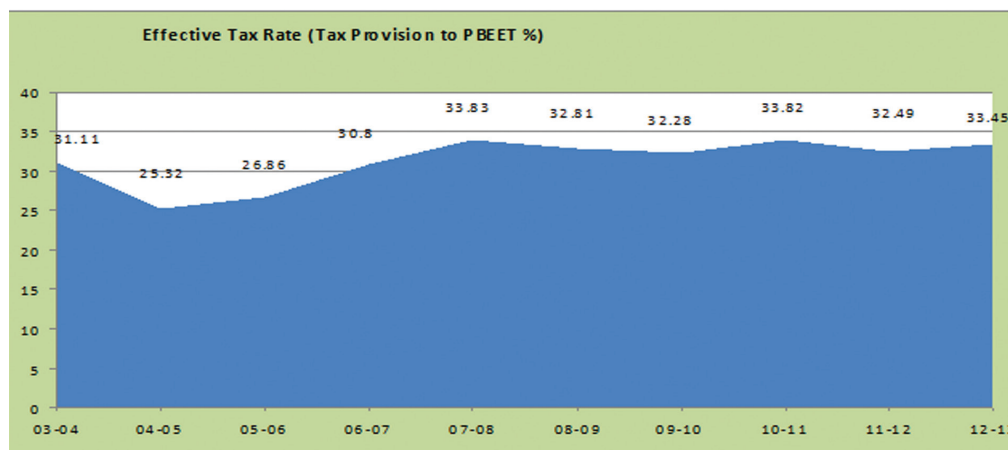
Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
No. of operating Enterprises	230	227	226	217	214	213	217	220	225	229
Capital employed	452336	504407	585484	661338	724009	792232	908007	1153947	1387821	1510373
Total Gross Turnover/Revenue	630704	744307	837295	964890	1096308	1271529	1244805	1498018	1822049	1945777
Total Net Income/Revenue	613706	734944	829873	970356	1102772	1309639	1272219	1470569	1804614	1931149
Net Worth	291828	341595	397275	454134	518485	583144	652993	709505	776161	851245
Profit before dep, Impairment, Int. Exc. Items, Ex. Or. Items & taxes (PBDIET)	127320	142554	150262	177990	195049	186836	211184	216602	250415	256826
Depreciation, Depletion & Amortization	31251	33147	34848	33141	36668	36780	41603	57118	53590	66117
DRE/Impairment	1025	986	992	5841	5802	7661	9565	187	153	436
Profit before Int. Exc. Items, Ex. Or. Items & taxes (PBIEET)	95039	108420	114422	139008	152579	142395	160017	159298	186671	190271
Interest	23835	22869	23708	27481	32126	39300	36060	26521	35911	37789
Profit before Exc. Items, Ex. Or. Items & taxes (PBEET)	71144	85550	90714	111527	120453	103095	123957	132777	150759	152482
Exceptional Items	---	---	---	---	---	---	---	-1479	-12372	-36766
Profit before Ex. Or. Items & taxes (PBET)	---	---	---	---	---	---	---	134256	146803	164854
Extra-Ordinary Items	-3933	-1075	-3192	-3880	-1570	-14600	-8264	-2695	-428	-1453
Profit before taxes (PBT)	75077	86625	93906	115407	122023	117695	132221	136951	147231	166308
Tax provisions	22134	21662	24370	34352	40749	33828	40018	44871	48986	51008
Net Profit/Loss after Tax from Continuing Operations	52943	64963	69536	81055	81274	83867	92203	92129	98245	115299
Net Profit/Loss after Tax from Discontinuing Operations	---	---	---	---	---	---	---	49	1	0
Overall Net Profit/Loss	52943	64963	69536	81055	81274	83867	92203	92129	98246	115298
Profit of profit making CPSEs	61606	74432	76382	89581	91577	98488	108434	113944	125929	143559
Loss of loss incurring CPSEs	8522	9003	6845	8526	10303	14621	16231	21817	27683	28260
Profit making CPSEs (No.)	139	143	160	154	160	158	157	158	161	149
Loss Incurring CPSEs (No.)	89	73	63	61	54	55	60	62	64	79
CPSEs Making no profit/loss	2	-	1	1	-	-	-	-	--	1
No. of Operating CPSEs that have not furnished information	---	---	2	1	---	---	---	---	---	---
Dividend	15288	20718	22886	26819	28123	25501	33223	35700	42627	49701
Dividend tax	1961	2852	3215	4107	4722	4132	5151	5394	5877	6703

## 1.2 Effective Tax Rate & Interest Burden

The effective tax rate is the net rate a taxpayer pays if all forms of taxes are included and divided by taxable income. The effective tax rate is often a more accurate representation

of a taxpayer's tax liability than its marginal tax rate. In terms of 'effective tax rate', the tax burden on CPSEs that improved significantly in their favour in 2004-05 to 2007-08, it has gone up in 2008-09 and 2009-10. Thereafter, it has hovered around 33 per cent with a spread of less than 0.45% (Fig 1.1).

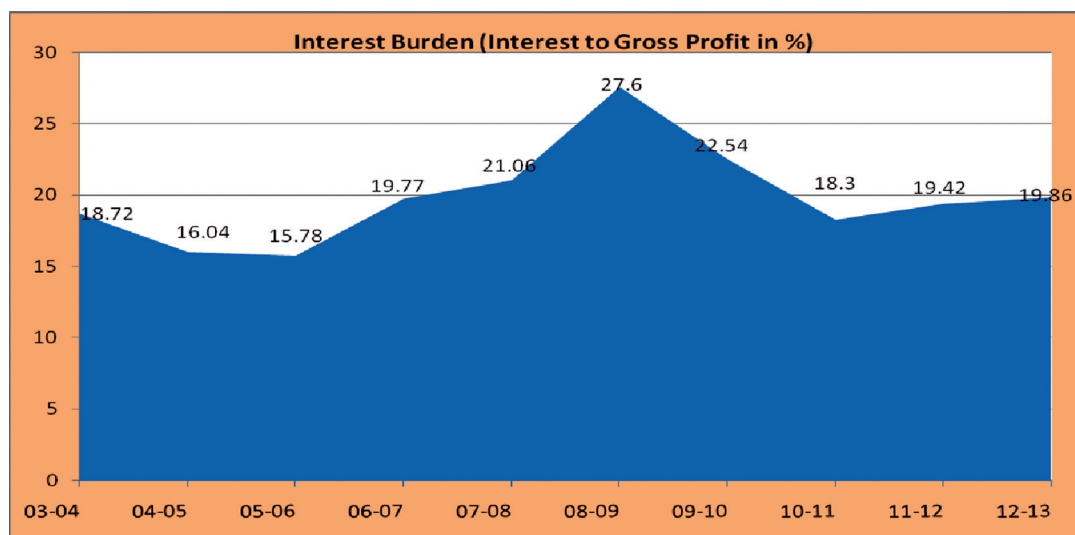
Figure 1.1



The interest burden on CPSEs measured as 'interest to gross profit' shows a decline up to 2005-06. Subsequently, it has shown an upward trend up to 2008-09 and came down in

the years 2009-10 and 2010-11. It, however, increased marginally in 2011-12 and 2012-13 to 19.24 and 19.86 percent respectively (Fig 1.2).

Figure 1.2



### 1.3 Aggregate Balance Sheet (2010-11 to 2012-13)

Table 1.1 below provides information on 'Sources of Funds and Liabilities & Assets' (capital available and the utilization) with CPSEs at the aggregate level during the last three years based on the Revised Schedule VI issued by the Ministry of Corporate Affairs in February 2011. The share-holders funds available with CPSEs increased during the year from ₹.7,87,534.51 in 2011-12 to ₹ 8,66,691.09 crore in 2012-13. While 'reserves and surplus' showed an increase of 9.26 per cent, over the previous year, 'long term borrowings' increased by 17.66 per cent during 2012-13 over 2011-12. In absolute terms, 'reserves and surplus' increased by ₹57,737.44 crore

in 2012-13 from the earlier level of ₹6,23,671.24 crore in 2011-12 (Table 1.1).

In terms of Assets (application of funds) there was a growth of 14.44 per cent in 'non-current assets' and 3.46 per cent in current assets during 2012-13 over 2011-12. While there was a growth of 9.93 per cent in 'gross block' (under 'non-current assets'), there was reduction of 10.18 per cent in 'current investment' (under current assets) in 2012-13 over 2011-12. In terms of respective shares under 'non-current assets' while net block claimed a share of 41.13 per cent, the share of long term loans and advances stood at 30.34 per cent. In the category of 'current assets' similarly, while 'trade receivable' claimed a share of 19.31 per cent, the share of 'cash and bank balances' stood at 25.96 per cent during 2012-13.

**Table 1.1**  
**Aggregate Balance Sheet of 227 CPSEs**

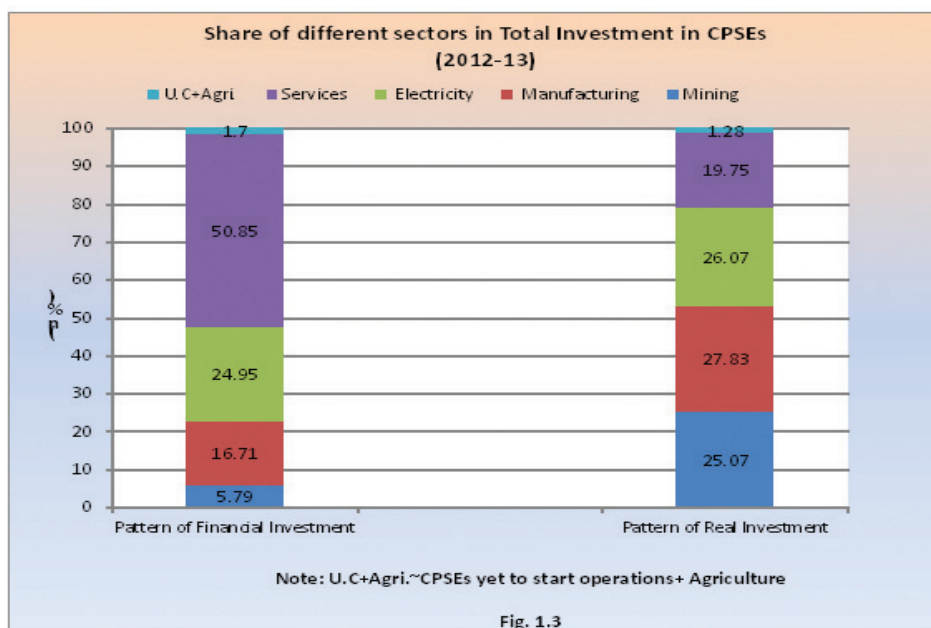
(₹in crore)

Particulars	2012-13	2011-12	2010-11
<b>I Equities and liabilities</b>			
(1.1) Net Worth (a+b+c+d)	866691.09	787534.51	717633.59
a. Paid-up Capital	182789.29	161348.92	155533.71
b. Money Received against Share Warrants	0	3.25	3.25
c. Reserves & Surplus	681408.68	623671.24	560195.87
d. Share Application Money	2493.12	2511.10	1900.76
(1.2) Non-Current Liabilities(e+f+g+h)	880695.79	762788.08	629227.82
e. Long Term Borrowings	665316.37	565435.15	446430.32
f. Deferred Tax Liability (Net)	45538.70	39294.07	36146.12
g. Other Long Term Liabilities	69871.36	67695.85	68729.42
h. Long Term Provisions	99969.36	90363.01	77921.96
(1.3) Total Current Liabilities (i+j+k+l)	844958.51	810215.49	707110.40
I. Short Term Borrowings	251919.88	226493.13	196357.47
j. Trade Payables	168730.19	176707.96	151714.49
k. Other Current Liabilities	344732.20	331459.02	297128.73
l. Short Term Provisions	79576.24	75555.38	61909.71
Grand Total (1.1+1.2+1.3)	2592345.38	2360538.08	2053971.81
<b>II Assets</b>			
(2.1) Non-Current Assets (a+b+c+d+e+f+g+h)	1565248.35	1367797.86	1187497.72
a. Gross Block	1250948.17	1138000.33	1026487.98
b. Depreciation & Amortization and Impairment	607101.34	557165.12	495998.52
c. Net Block	643846.83	580835.21	530489.46
d. Capital Work-In-Progress (including Intangible Assets under development)	297104.53	265073.81	210562.57
e. Non- Current Investments	83116.87	70876.40	83949.78
f. Deferred Tax Assets	11065.43	8896.35	8199.13
g. Long Term Loans & Advances	474915.56	399163.73	319015.72
h. Other Non-Current Assets.	55199.13	42952.36	35281.06
(2.2) Current Assets (i+j+k+l)	1027097.03	992740.22	866474.09
I Current Investments	28878.60	32150.72	33795.09
j. Trade Receivables	198296.30	180796.19	131016.24
k. Cash & Bank Balances	266599.79	283256.40	276156.97
l. Other Current Assets	533322.34	496536.91	425505.79
Grand Total (2.1 + 2.2)	2592345.38	2360538.08	2053971.81

## 1.4 Investment Pattern in terms of Gross Block

The overall growth in investment in CPSEs, in terms of 'gross block' (inclusive of capital work in progress), stood at 10.33 per cent in 2012-13 over the previous year. (Table 1.2/ Fig.1.4). In terms of gross block, the 'manufacturing' CPSEs

had the highest share in aggregate investment (of all CPSEs) at 27.83 per cent during 2011-12. This was followed by 'electricity' (26.07%), 'mining' (25.07%) and 'services' (19.75%). In terms of growth in investment over the previous year, the highest growth (other than CPSEs under construction and agriculture) was recorded by 'electricity' (14.67%) followed by 'manufacturing sector' (10.79 %) and 'mining' (9.80 %).



**Table 1.2**  
**Pattern of investment in terms of Gross Block**  
**(2011-12 and 2012-13)**

(₹ 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 31.3.13)
		31.3.2013	31.3.2012		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Agriculture	921	869	5.98	0.06
2.	Mining	388125	353499	9.80	25.07
3.	Manufacturing	430840	388893	10.79	27.83
4.	Electricity	403561	351939	14.67	26.07
5.	Services	305704	295007	3.63	19.75
6.	CPSEs yet to Commence Operations	18902	12867	46.90	1.22
Total		1548053	1403074	10.33	100.00

Note : This is inclusive of capital- work -in- progress (including intangible assets).

### 1.4.1 Top Ten Enterprises in terms of Gross Block

Gross block in top ten CPSEs amounted to ₹ 10,68,390.25 crore as on 31.3.2013. This was equal to 69.02 per cent of the total gross block in all CPSEs. Oil & Natural Gas Corpora-

tion 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 2012-13 (Table 1.3). The share of these three CPSEs alone was 35.71 % of the total gross block of all the CPSEs as on 31.3.2013.

**Table 1.3**  
**Top Ten Enterprises in Terms of Gross Block, as on 31.3.2013**

(₹ in crore)

Sl.No.	CPSEs	Investment in terms of Gross Block*	Share in total Gross Block %)
(1)	(2)	(3)	(4)
1.	Oil & Natural Gas Corporation Ltd.	236567.76	15.28
2.	Bharat Sanchar Nigam Ltd.	175815.31	11.36
3.	NTPC Ltd.	140355.12	9.07
4.	Indian Oil Corporation Ltd.	123112.60	7.95
5.	Power Grid Corporation of India Ltd.	115423.59	7.46
6.	Steel Authority of India Ltd.	78593.27	5.08
7.	ONGC Videsh Ltd.	67967.39	6.36
8.	NHPC Ltd.	45429.08	4.39
9.	Nuclear Power Corporation of India Ltd.	42947.05	2.77
10.	Hindustan Petroleum Corporation Ltd.	42179.08	2.72
<b>Total Top Ten (CPSEs)</b>		<b>1068390.25</b>	<b>69.02</b>
<b>Total Gross Block</b>		<b>1548052.70</b>	<b>--</b>

\* Gross Block inclusive of Capital-work-in progress and intangible assets under development.

### 1.4.2 Financial Investment in CPSEs

Financial investment (equity plus long term loans) in all the 277 CPSEs as on 31.3.2013 stood ₹850599 crore as compared to ₹729298 crore in the previous year, showing an increase by ₹1,21,301 crore and a growth of 16.63 per cent.

Table 1.4 below shows the sector-wise and cognate group-wise cumulative investment in CPSEs as on 31.3.2012 and 31.3.2013. In terms of share in total investment, the CPSEs in the 'service' sector had the highest share in financial investment (50.85%) as on 31.3.2013. This was followed by 'electricity' sector (24.96%), 'manufacturing' sector (16.17%) and 'mining' sector (5.79%).

**Table 1.4**  
**Group-wise Investment of CPSEs for the last 3 years**

(₹. in crore)

Sl. No.	Sector/ Cognate Group	Financial Investment		
		31.3.2013	31.3.2012	31.3.2011
(1)	(2)	(3)	(4)	(5)
<b>I. Agriculture</b>				
1	Agro Based Industries	1135.48	902.65	212.39
Sub Total		1135.48	902.65	212.39
<b>II. Mining</b>				
2	Coal	17663.84	16696.59	16738.27
3	Crude Oil	26999.37	27211.41	26936.17
4	Other Minerals & Metals	4589.99	4577.60	4577.61
Sub Total		49253.20	48485.60	48252.05
<b>III. Manufacturing</b>				
5	Steel	25410.40	23656.25	21247.82
6	Petroleum(Refinery & Marketing)	62178.33	42344.55	35265.76
7	Fertilizers	16131.55	17204.41	15622.95
8	Chemicals & Pharmaceuticals	8334.71	8009.21	7751.67
9	Heavy Engineering	2655.20	2557.30	2423.58
10	Medium & Light Engineering	10062.64	9261.78	8374.74
11	Transportation Equipment	1970.14	1742.96	1915.89
12	Consumer Goods	7021.98	5661.38	5127.11
13	Textiles	3784.79	3760.01	4074.21
Sub Total		137549.74	114197.85	101803.73
<b>IV. Electricity</b>				
14	Power Generation	144564.11	135073.39	124247.52
15	Power Transmission	67706.13	53749.05	41845.70
Sub Total		212270.24	188822.44	166093.22
<b>V. Services</b>				
16	Trading & Marketing	12247.59	7177.92	7484.51
17	Transport Services	63418.53	46184.09	29316.30
18	Contract & Construction Services	17030.67	15298.10	13920.60
19	Industrial Development & Tech. Consultancy Services	1069.33	954.60	874.15
20	Tourist Services	189.29	201.35	191.12
21	Financial Services	316488.96	271944.66	209689.22
22	Telecommunication Services	22094.35	22224.28	17113.29
Sub Total		432538.72	363985.00	278589.19
<b>VI. Under Construction</b>				
23	Enterprises Under Construction	17851.40	12904.88	8917.46
Sub Total		17851.40	12904.88	8917.46
Grand Total		850598.78	729298.42	603868.04

## 1.5 Turnover in CPSEs

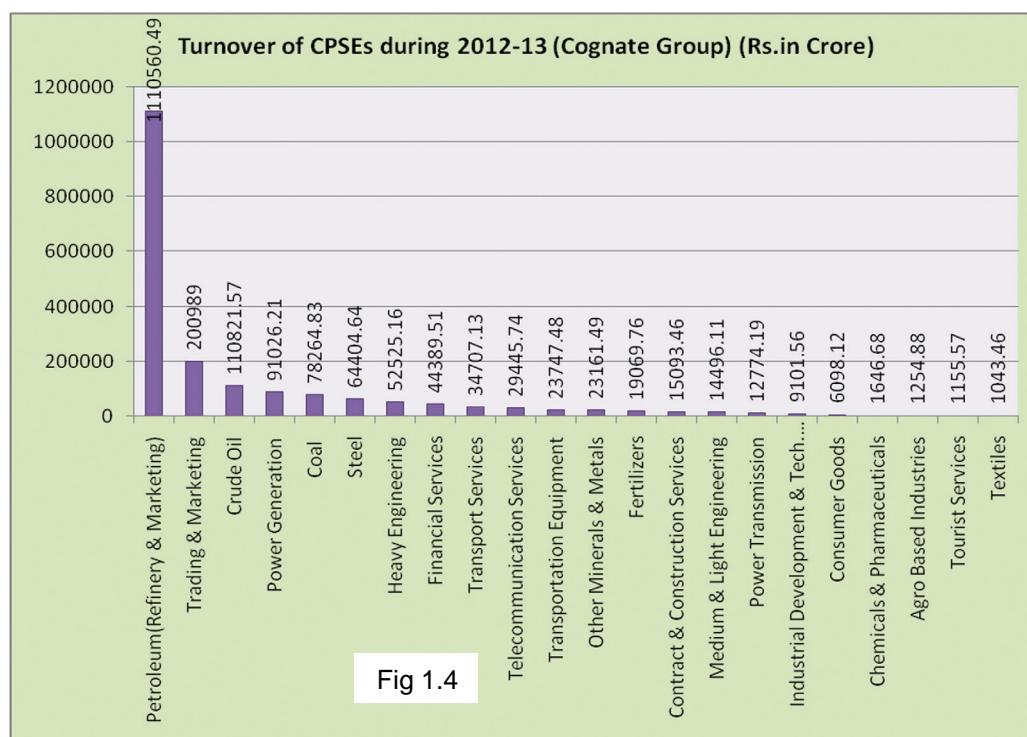
Gross revenue / turnover from operating CPSEs have recorded a growth rate of 6.79 % in 2012-13, 21.63 in 2011-12 and 20.34 in 2010-11. Thus CPSEs performance on this

account is somewhat abysmal this year if inflation is to be taken in to account. Gross revenue of CPSEs has increased by 6.79 per cent in 2012-13 over 2011-12. However there were considerable variations within the cognate groups as well as among them as is evident from Table 1.5

**Table 1.5**  
**Group-wise Gross Revenue from Operations of CPSEs**  
(2010-11 to 2012-13)

( ₹ in Crores)						
S. No.	Sector / Coagnate Group	Turnover			% Growth	
		2010-11	2011-12	2012-13	2011-12	2012-13
	AGRICULTURE					
1	AGRO BASED INDUSTRIES	939.48	1018.04	1254.88	8.36	23.26
SUB TOTAL :		939.48	1018.04	1254.88	8.36	23.26
	MINING					
2	COAL	53801.19	70255.4	78264.83	30.58	11.40
3	CRUDE OIL	82537.66	109098.64	110821.57	32.18	1.58
4	OTHER MINERALS & METALS	23359.44	23777.92	23161.49	1.79	-2.59
SUB TOTAL :		159698.29	203131.96	212247.89	27.20	4.49
	MANUFACTURING					
5	STEEL	60236.42	66309.89	64404.64	10.08	-2.87
6	PETROLEUM (REFINERY & MARKETING)	783669.05	991718.6	1110560.49	26.55	11.98
7	FERTILIZERS	15931.6	19451.3	19069.76	22.09	-1.96
8	CHEMICALS & PHARMACEUTICALS	1588.36	1532.92	1646.68	-3.49	7.42
9	HEAVY ENGINEERING	45223.47	51657.46	52525.16	14.23	1.68
10	MEDIUM & LIGHT ENGINEERING	14016.76	13509.34	14496.11	-3.62	7.30
11	TRANSPORTATION EQUIPMENT	20786.28	23630.87	23747.48	13.68	0.49
12	CONSUMER GOODS	5321.23	5826.08	6098.12	9.49	4.67
13	TEXTILES	638.57	709.31	1043.46	11.08	47.11
SUB TOTAL :		947411.74	1174345.77	1293591.9	23.95	10.15
	ELECTRICITY					
14	POWER GENERATION	75571.43	87533.21	91026.21	15.83	3.99
15	POWER TRANSMISSION	8460.96	10225.37	12774.19	20.85	24.93
SUB TOTAL :		84032.39	97758.58	103800.4	16.33	6.18
	SERVICES					
16	TRADING & MARKETING	195884.3	225132.92	200989	14.93	-10.72
17	TRANSPORT SERVICES	29282.98	31195.01	34707.13	6.53	11.26
18	CONTRACT & CONSTRUCTION SERVICES	12649.25	13927.66	15093.46	10.11	8.37
19	INDUSTRIAL DEVELOPMENT & TECH. CONSULTANCY SERVICES	8330.36	9879.16	9101.56	18.59	-7.87
20	TOURIST SERVICES	889.29	986.24	1155.57	10.90	17.17
21	FINANCIAL SERVICES	27831.55	34971.16	44389.51	25.65	26.93
22	TELECOMMUNICATION SERVICES	31068.4	29702.8	29445.74	-4.40	-0.87
SUB TOTAL :		305936.13	345794.95	334881.97	13.03	-3.16
GRAND TOTAL		1498018.03	1822049.3	1945777.04	21.63	6.79

Fig-1.4



The Agriculture sector recorded the highest growth in turnover (23.26%) during 2012-13 over the previous year growth of 8.36%. This was followed by 'manufacturing' with a (10.15%) growth during the same period on top of previous year growth rate of 23.95%. The 'electricity' sector regis-

tered a growth (6.18 %) in 2012-13 over the year 2011-12 and previous year growth was 16.33% in revenue during the year 2011-12. The 'services' sector showed a decline in revenue (3.16%) from the operations during 2012-13 whereas it had recorded a significant growth (13.03%) in 2011-12.

Table 1.6  
Sector wise Growth in Gross Revenue/Turnover (2012-13)  
(In % age)

Sector	2012-13	2011-12
Agriculture	23.26	8.36
Mining	4.49	27.20
Manufacturing	10.15	23.95
Electricity	6.18	16.33
Services	-3.16	13.03
All CPSEs	6.79	21.63

There was, moreover, much variation in growth from industry to industry. There was significant decline in revenue in CPSEs belonging to industry like telecommunication servic-

es, industrial development and technical consultancy services, trading and marketing and fertilizers.

## 1.6 Aggregate Profit and Loss of CPSEs

The net profit of profit making CPSEs stood at ₹1, 43,559 crore in 2012-13 compared to ₹1, 25,929 crore in 2011-12. The loss of loss making CPSEs, on the other hand, was ₹28, 260 crore in 2012-13 compared to ₹27, 683 crore in 2011-12. At the aggregate level, the net profit of all CPSEs (aggregate net profit - aggregate net loss) stood at ₹1,15, 298 crore in 2012-13 compared to ₹98,246 crore during 2011-12. It is noticed that out of 229 operating companies 79 CPSEs reported losses as against 64 CPSEs out of 225 operating CPSEs in 2011-12. While the number of CPSEs reporting losses increased by 23.44 % age there was nonetheless only marginal increase in losses from ₹ 27,683 crore to ₹ 28,260 crore by loss making CPSEs. In the year 2011-12 the net profit of all CPSEs had increased from ₹ 113944 crore to ₹ 125929 crore recording a growth rate of 6.64%. In the year 2012-13 the rate of growth of net profit of CPSEs was 17.36%.

Cognate group-wise, the best results were achieved by the 'manufacturing' sector with 30.92 per cent growth in profit over the previous year. This was followed by 18.37 per cent growth in profits achieved by electricity sector. The 'Services' sector continued to report losses even in the fourth consecutive year although, the volume of losses shrunk from high of ₹ (-) 9121.44 crore in 2011-12 to ₹ (-) 3172.15 crore in 2012-13. This was mainly due to the loss suffered by Bharat Sanchar Nigam Ltd., Mahanagar Telephone Nigam Ltd., Air India Ltd. and Chennai Petroleum Corporation Ltd. during the year 2012-13. Under the 'manufacturing sector', Steel, Petroleum, Heavy Engineering, Transportation Equipment, and Textiles showed a decline in profits while Fertilizers showed an increase in profits due to income from exceptional item received by Fertilizers Corporation of India Ltd. in 2012-13. CPSEs belonging to chemicals & pharmaceuticals, transportation services sectors and Medium & Light Engineering Industries, on the other hand, reduced their losses during 2012-13.

**Table 1.7**  
**Net Profit/Loss of CPSEs**

(₹ in crore)

Sl. No.	Sector/ Cognate Group	Net profit/Loss		
		31.3.2013	31.3.2012	31.3.2011
(1)	(2)	(3)	(4)	(5)
I. Agriculture				
1	Agro Based Industries	-99.15	-0.62	40.24
Sub Total		-99.15	-0.62	40.24
II. Mining				
2	Coal	26352.17	22054.13	15037.09
3	Crude Oil	28060.28	31198.13	23935.21
4	Other Minerals & Metals	8024.71	9203.40	8622.51
Sub Total		62437.16	62455.66	47594.81
III. Manufacturing				
5	Steel	2617.84	4364.63	5642.43
6	Petroleum(Refinery & Marketing)	10222.43	10993.60	16060.82
7	Fertilizers	10145.56	-554.70	-471.73
8	Chemicals & Pharmaceuticals	-438.54	-619.62	-690.35
9	Heavy Engineering	6542.84	6899.75	7137.17
10	Medium & Light Engineering	-279.45	-286.82	-432.51
11	Transportation Equipment	3567.06	3789.27	3019.66
12	Consumer Goods	-1370.73	-934.18	-710.80
13	Textiles	-14.58	20.54	1114.13
Sub Total		30992.43	23672.47	30668.82
IV. Electricity				
14	Power Generation	20927.91	17965.53	16013.67
15	Power Transmission	4212.84	3274.32	2713.82
Sub Total		25140.75	21239.85	18727.49
V. Services				
16	Trading & Marketing Services	408.44	373.89	555.22
17	Transport Services	-3931.34	-6894.32	-4886.92
18	Contract & Construction Services	991.10	913.02	587.73
19	Industrial Development & Tech. Consultancy Services	1312.80	1240.15	1073.20
20	Tourist Services	24.82	34.82	24.21
21	Financial Services	11116.20	8085.83	6835.00
22	Telecommunication Services	-13094.17	-12874.83	-9091.26
Sub Total		-3172.15	-9121.44	-4902.82
Grand Total		115299.04	98245.92	92128.54

### 1.6.1 Top Ten Profit Making CPSEs

Table 1.8 and Table 1.9 provide the list of the top ten profit making and top ten loss making CPSEs respectively. Oil & Natural Gas Corporation Ltd., NTPC Ltd., and Fertilizer Corporation of India Ltd. ranked first, second and third CPSEs respectively amongst the top ten profit making CPSEs. Among

the top ten profit making companies Fertilizer Corporation of India Ltd., Power Finance Corporation and Power Grid Corporation of India Ltd. entered in place of Mahanadi Coalfields Ltd., GAIL (India) Ltd, and Steel Authority of India Ltd. during 2012-13. The top ten profit making companies claimed 59.23% of the total profit made by all the (149) CPSEs during the year.

**Table 1.8**  
**Top Ten Profit Making CPSEs (2012-13)**

( ₹ in crore)

Sl. No.	Name of the CPSEs	Net profit	% share in total net profit
(1)	(2)	(3)	(4)
1.	Oil & Natural Gas Corporation Ltd.	20925.70	15.50
2.	NTPC Ltd.	12619.39	9.34
3.	Fertilizer Corporation of India Ltd.	10778.08	7.98
4.	Coal India Ltd.	9794.32	7.25
5.	Bharat Heavy Electricals Ltd.	6614.73	4.90
6.	NMDC Ltd.	6342.37	4.70
7.	Indian Oil Corporation Ltd.	5005.17	3.71
8.	Power Finance Corporation	4419.60	3.27
9.	Power Grid Corporation of India Ltd.	4234.50	3.14
10.	GAIL (India) Ltd	4022.20	2.98
	<b>Total (1 to 10)</b>	<b>84756.06</b>	<b>62.76</b>
	<b>Net Profit of profit making CPSEs.</b>	<b>135048.07</b>	<b>--</b>

\* This is due to exceptional items of Rs. 10740.37 Cr. The Profit reflects book profit

### 1.6.2 Top Ten Loss Making CPSEs

Table 1.9 provides the list of top ten loss making CPSEs. Amongst the loss making companies, Bharat Sanchar Nigam Ltd., Mahanagar Telephone Nigam Ltd. and, Air India Ltd were the top three loss making CPSEs during 2012-13. The top ten loss making companies claimed 86.66% of the total loss made by all the (79) CPSEs during the year. The top

three CPSEs namely BSNL, MTNL and Air India Ltd alone incurred a loss equal to 65.12% of the total loss of all loss making CPSEs in 2012-13. The loss of MTNL went up by 29.47% while Air India Ltd. and Bharat Sanchar Nigam Ltd. reduced their losses 31.23% and 10.92% respectively in 2012-13 over the previous year.

**Table 1.9**  
**Top Ten Loss Making CPSEs (2012-13)**

( ₹ in crore)

Sl. No.	Name of the CPSEs	Net Loss	(% share in total net loss)
(1)	(2)	(3)	(4)
1.	Bharat Sanchar Nigam Ltd.	(-) 7884.44	27.90
2.	Mahanagar Telephone Nigam Ltd.	(-) 5321.12	18.83
3.	Air India Ltd.	(-) 5198.55	18.40
4.	Chennai Petroleum Corporation Ltd.	(-) 1766.84	6.25
5.	Hindustan Photo Films Manufacturing Co. Ltd.	(-) 1560.59	5.52
6.	Hindustan Cables Ltd.	(-) -885.05	3.13
7.	Mangalore Refinery & Petrochemicals Ltd.	(-) 756.91	2.68
8.	Bharat Petro Resources Ltd.	(-) -382.64	1.35
9.	Hindustan Fertilizer Corporation Ltd.	(-) 380.53	1.35
10.	Fertilizers & Chemicals (Travancore) Ltd.	(-) 353.96	1.25
	<b>Total Loss (1 to 10)</b>	<b>(-) 24490.63</b>	<b>86.66</b>
	<b>Net Loss of loss making CPSEs.</b>	<b>(-) 28260.50</b>	<b>100</b>

### 1.7.1 Gross Value Addition by CPSEs

GDP at market prices increased from ₹ 8974949 crore in 2011-12 to ₹ 10020620 crore in 2012-13 thus recording a growth of 11.65%. The net value addition by CPSEs increased from ₹ 497681 crore to ₹ 520144 crore in 2012-13 recording a growth rate of 4.51% in nominal terms. Thus the share of net value addition as a ratio to GDP stood at 5.19 % in the year 2012-13 as against 5.55% in 2011-12. The share of 'gross value addition' in CPSEs (net value addition + depreciation) as percent of Gross Domestic Product (at current market price) stood at 5.85 per cent in 2012-13 against 6.14 per cent in 2011-12.

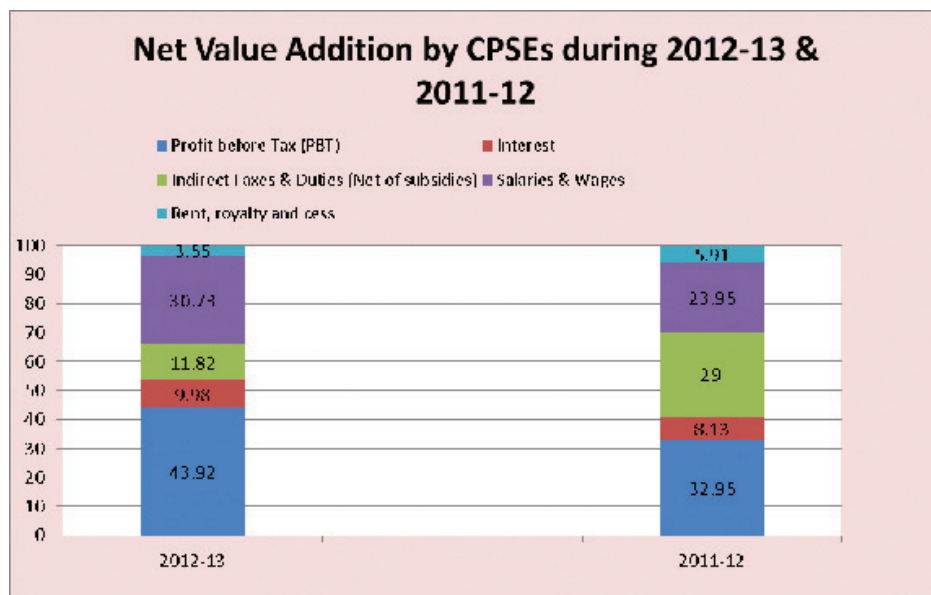
### 1.7.2 Components of Net Value Addition

In terms of 'net value addition' (gross value addition - depreciation) generated by CPSEs in 2012-13, the share of Indirect Taxes & Duties was the highest at 35.80 per cent. This was followed by 'profit before tax' PBT (31.97%) salary & wages (22.37%), interest payment (7.27%) and Rent Royalty and cess (2.59 %). (Table 1.10). A comparison between the respective shares of each of these items during 2012-13 and 2011-12 shows very little change during these two years (Fig. 1.5).

**Table 1.10**  
**Components of Net Value Addition in CPSEs**

(₹ in crore)					
Sl	Net Value Addition	2012-13	Share (%)	2011-12	Share(%)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Profit before Tax (PBT)	166308	31.97	147232	29.58
2.	Interest	37790	7.27	35911	7.22
3.	Indirect Taxes & Duties (Net of subsidies)	186207	35.80	182844	36.74
4.	Salaries & Wages	116375	22.37	105648	21.23
5.	Rent, royalty and cess	13464	2.59	26046	5.23
Total:		520144	100.00	497681	100.00

Fig 1.5



## 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 only a marginal increase in the total contribution of CPSEs to the Central Exchequer during the year, which increased from ₹1,62,402 crore in 2011-12

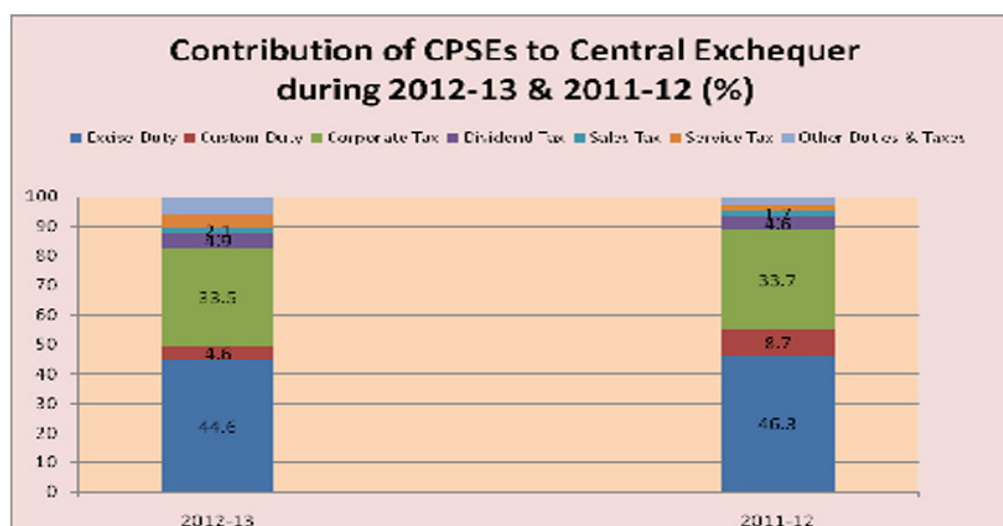
to ₹1,62,761 crore in 2012-13. This was, primarily due to increase in contribution towards ‘service tax’ and ‘sales duty’ which increased by 2,334 crore and ₹ 562 crore respectively in 2012-13. There was, however, a decline in ‘Custom Duty’, ‘and ‘Excise Duty’ and significant increase in other duties & taxes’ and ‘dividend tax’ during the year as compared to the previous year.

**Table 1.11**  
**Contribution to the Central Exchequer**

(₹ in crore)

Sl. No.	Particulars	2012-13	2011-12	Growth (%)
(1)	(2)	(3)	(4)	(5)
<b>I. Investment in CPSEs</b>				
1	Dividend	28864.38	28524.43	1.19
2.	Interest	795.43	2021.08	-60.64
	<b>Total I</b>	<b>29659.81</b>	<b>30545.51</b>	<b>30.04</b>
<b>II. Taxes &amp; Duties (Central)</b>				
1.	Excise Duty	59413.66	61165.14	-2.86
2.	Custom Duty	6072.62	11518.43	-47.28
3	Corporate Tax	44612.48	44192.26	0.95
4	Dividend Tax	6470.41	6099.70	6.08
5.	Sales Tax	2796.49	2234.09	25.17
6.	Service Tax	5586.71	3252.49	71.77
7.	Other Duties & Taxes	8149.13	3394.62	140.06
<b>Total (II)</b>		<b>133101.50</b>	<b>131856.73</b>	<b>0.94</b>
<b>Grand Total (I +II)</b>		<b>162761.31</b>	<b>162402.24</b>	<b>0.22</b>

**Fig 1. 6**



## 1.9 Employment in CPSEs

As on 31.3.2013, the 277 CPSEs employed over 14.04 lakh people (excluding contract workers). One-fourth of the

manpower belongs 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 1.12.

**Table 1.12**  
**Employment and Average Annual Emoluments in CPSEs**

Year	Employees (in lakh) (Excluding contract 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	14.40	98402	683347
2011-12	14.50	105648	728606
2012-13	14.04	116375	828882

## 1.10 MoU System in CPSEs

MoU is a mutually negotiated agreement between the management of the CPSEs and the Government of India/Holding CPSEs. MoU system involves goal setting in Financial and Non Financial areas and performance evaluation of these goals. A High Powered Committee under the Cabinet Secretary oversees the MoU system. MoU facilitates empowerment and enhancement of performance of CPSEs. CPSEs are made more accountable and result oriented. Objectives of MoU are (i) Improve the performance of CPSEs by increas-

ing autonomy and accountability of management; (ii) Fixing of targets in accordance with the goals and objectives of CPSEs; (iii) Enable performance evaluation through objective criteria and (iv) Provides a mechanism of rewarding and incentivizing performance. The MoU system that was started with four CPSEs signing MoU in the year 1986-87 increased its coverage to 196 CPSEs in the year 2012-13. MoU rating of CPSEs during the last five years is shown in the Table 1.13 below:

**Table 1.13**  
**MoU Ratings**

Rating	2007-08	2009-10	2010-11	2011-12	2012-13
Excellent	47	74	67	76	75
Very Good	34	30	44	39	39
Good	25	20	24	33	37 + 1 *
Fair	17	20	24	25	36
Poor	01	01	02	02	02
Total	124	145	161	175	190

\* Provisional

## 1.11 Government Disinvestment in CPSEs

Disinvestment of minority shares in CPSEs is an important source of raising resource for the Government. The policy of 'disinvestment' in (CPSEs) has evolved over the years.

Disinvestment of government equity in CPSEs began in 1991-92 following the Industrial Policy Statement of 1991, which stated that the Government would divest part of its holdings/ minority share-holding in select CPSEs.

### 1.11.1 Current Policy on Disinvestment

The current policy on disinvestment envisages people's ownership of CPSEs while ensuring that the Government equity does not fall below 51% and Government retains management control. Keeping this objective in view of disinvestment policy, the Government has adopted the following approach to disinvestment:

- (i) Already listed profitable CPSEs (not meeting mandatory shareholding of 10%) are to be made compliant by 'Offer for Sale' (OFS) 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 (FPO) 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) Since each CPSE has different equity structure; financial strength; fund requirement; sector of operation etc., factors that do not permit a uniform pattern of disinvestment, disinvestment will be considered on merits and on a case-by-case basis.
- (v) CPSEs are permitted to use their surplus cash to buy-back their shares; one CPSE may buy the shares of other CPSEs from the Government.

### 1.11.2 Disinvestment in Loss Making CPSEs

The Board for Reconstruction of Public Sector Enterprises (BRPSE) has been mandated to examine loss-making/sick CPSEs for revival/restructuring for their turnaround and advise the Government on disinvestment/closure/sale in full or part, in respect of chronically loss-making/sick CPSEs that cannot be revived. As such if efforts to revive fail and the Government decides for privatization, then the Department of Disinvestment will take up such cases for strategic sale.

### 1.12 Policy for Revival of Sick PSEs

The CPSEs whose accumulated losses have exceeded their net worth are defined as sick. The CPSEs were brought under the purview of Sick Industrial Companies (Special Provision) Act, 1985 in 1991. 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. The number of sick CPSEs, which was 90 in 2004-05, came down to 66 in March 2012 but has climbed back again. 79 CPSEs were reported as sick in March 2013 in terms of conditions laid down by BRPSE.

Up to October, 2013, proposals of 68 sick CPSEs have been referred to BRPSE. Out of which, the Board has made recommendations in respect of 64 cases. In addition, the Board has also recommended to the Government to accord "in principle" approval for rescinding of its earlier decision to close the units of Fertilizers Corporation of India (FCIL) and Hindustan Fertilizers Corporation Ltd. (HFCL) and to explore various options for their revival. 4 cases of CPSEs (Nagaland Pulp & Paper Co., Hindustan Fertilizer Corporation Ltd. (HFCL), Fertilizer Corporation of India Ltd. (FCIL), and Birds Jute & Exports Ltd.) have been returned to the concerned administrative Ministries/Departments for further information. Out of these, revival proposal for 3 CPSEs- Nagaland Pulp & Paper Co., HFCL & FCIL have been approved directly by CCEA on the basis of proposals of the concerned Administrative Ministries.

The Board during the period from November, 2012 to October, 2013 recommended revival package to ITI Ltd. & HMT Bearings Ltd. and closure of STCL Ltd., Hindustan Photo Films Manufacturing Co. Ltd. and Biecco Lawrie Ltd. The Board during this period reviewed the status of implementation of revival package sanctioned by Government to 13 CPSEs.

### 1.13 Board Structure of CPSEs

CPSEs are categorized into 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 Department of Public Enterprises (DPE) in consultation with the Public Enterprises Selection Board (PESB).

### 1.14 Professionalization of Boards

In pursuance to the policy on public sector enterprises being followed since 1991, several measures have been taken by the DPE to professionalize the Boards of CPSEs. The guidelines issued by the DPE in 1992 provide for induction of outside professionals on the Boards of CPSEs as part-time non-official Directors. Furthermore, 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.

### 1.15 Wages/ Salaries and Employees Welfare

The Department of Public Enterprises (DPE) functions as the nodal Department in the Government of India, *inter-alia*, in respect of policy relating to wage settlements of unionized employees, pay revision of non-unionized supervisors and the executives holding posts below the Board level 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, (only approx. 4%) Central Dearness Allowance (CDA) pattern of scales of pay is followed in the CPSEs.

### 1.16 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. From the introduction of the VRS Scheme in October, 1988 till March 2013 approximately 6.16 lakh employees have been released under the Scheme.

### 1.17 Counseling, Retraining and Redeployment (CRR)

In the context of restructuring of Central Public Sector Enterprises (CPSEs), rationalization of manpower has become a necessity. The policy of the Government has been to implement reforms with a humane face and provide adequate safety net for the workers adversely affected due to right sizing. Considering the need to have safety net, Government had established the National Renewal Fund (NRF) in February, 1992 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. After the abolition of NRF in February, 2000, the Scheme for Counselling, Retraining and Redeployment (CRR) of Rationalized Employees of CPSEs is being implemented by Department of Public Enterprises since 2001-02. CRR Scheme was modified in November, 2007 in order to

widen its scope and coverage. One dependent of VRS optee is also eligible in case the VRS optee himself/herself is not interested.

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

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

In the year 2012-13, plan funds to the tune of ₹ 8.60 crore were allocated for implementation of CRR Scheme. During the year, 13 nodal agencies were operational with 49 Employees Assistance Centres (EACs) located all over the country. Year wise number of persons trained under the scheme is shown as under:-

**Table 1.14**  
**CRR Scheme**

Year	Number of VRS optees trained
2001-02	8,064
2002-03	12,066
2003-04	12,134
2004-05	28,003
2005-06	32,158
2006-07	34,398
2007-08	9,728
2008-09	9,772
2009-10	7,400
2010-11	9,265
2011-12	9,400
2012-13	7,506
Total	1,79,894

During 2012-13, National Institute for Entrepreneurship & Small Business (NIESBUD), an autonomous body under Ministry of Micro, Small & Medium Enterprises was engaged as Third Party Assessment Agency (TPAA) to evaluate the performance of nodal agencies. The TPAA has recommended that the exchange of information between CPSEs and nodal agencies needs to be strengthened by way of preparing the release schedule, dissemination of data of VRS optees and Pre-VRS sensitization by the CPSEs. It has also advised that for counselling should involve family members and services of professional counsellors including women counsellors for women trainees should be engaged. Greater emphasis has been laid on market oriented trades and post-training follow-up action.

### 1.18 Market Capitalization of CPSEs Stocks

There were 45 CPSEs listed and traded on the stock exchanges of India as on 31.03.2012; NBCC was listed during 2012-13. There are 46 CPSEs which are traded on stock exchanges of India as on 31.03.2013.

The total market capitalization of 45 CPSEs based on stock prices on Mumbai Stock Exchange as on 31.03.2012 was ₹ 12,57,792.00 crore. Market capitalization of 46 CPSEs as on 31.03.2013 stood at ₹ 11, 16,817.00 crore. There was,

therefore, decrease in market capitalization of CPSEs by -11.21% ( ₹1, 40,975.00 crore) as on 31.03.2013 over market capitalization as on 31.03.2012. During this period, the market capitalization of Mumbai Stock Exchange increased by 1.87% and Sensex increased by 8.23%. Market Capitalization (M\_Cap) of all listed CPSEs as a percentage of BSE M\_Cap decreased from 20.24% as on 31.03.2012 to 17.64% as on 31.3.2013. A table showing closing price of listed CPSEs in BSE as on 31.3.2012 and 31.3.2013 (as well as M\_Cap on these dates) is given at Table 1.15.

**Table 1.15**

**Growth In Market Capitalisation of listed and traded CPSEs**

S.No.	Company Name	BSE Closing Market Price of stocks as 31.03.2012 ( ₹ in crore)	BSE Closing Market Price of stocks as 31.03.2013 ( ₹ in crore)	Market Capitalization as on 31.03.2012	Market Capitalization as on 31.03.2013	% Change in Market Cap. (2013 over 2012)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andrew Yule & Co. Ltd.	23.05	13.65	751.75	445.18	-40.78
2	BEML Ltd.	651.50	145.75	2,713.14	606.97	-77.63
3	Balmer Lawrie & Co. Ltd.	533.40	605.8	868.70	986.61	13.57
4	Balmer Lawrie Invsts. Ltd.	150.95	191.65	335.07	425.41	26.96
5	Bharat Electronics Ltd.	1,523.20	1149.15	12,185.60	9193.2	-24.56
6	Bharat Heavy Electricals Ltd.	256.95	176.95	62,891.08	43310.28	-31.13
7	Bharat Immunologicals & Biologicals Corpn. Ltd.	8.18	12.14	35.32	52.42	48.41
8	Bharat Petroleum Corpn. Ltd.	699.30	378.15	25,282.64	27343.44	8.15
9	Chennai Petroleum Corpn. Ltd.	154.00	121.5	2,293.24	1809.27	-21.1
10	Coal India Ltd.	343.10	309.15	216,714.00	195270.41	-9.89
11	Container Corpn. Of India Ltd.	943.50	1030.45	12,263.88	13394.08	9.22
12	Dredging Corpn. Of India Ltd.	273.25	195.55	765.10	547.54	-28.44
13	Engineers India Ltd.	254.00	154.55	8,558.19	5207.36	-39.15
14	Fertilisers & Chemicals, Travancore Ltd.	30.15	21.65	1,069.64	768.08	-28.19
15	GAIL (India) Ltd.	374.95	319.15	47,561.56	40483.46	-14.88
16	HMT Ltd.	40.95	25.3	3,103.40	1917.36	-38.22
17	Hindustan Copper Ltd.	267.50	92.7	24,749.58	8576.77	-65.35
18	Hindustan Organic Chemicals Ltd.	18.15	10.89	121.92	73.15	-40
19	Hindustan Petroleum Corpn. Ltd.	303.20	285.1	10,267.18	9654.26	-5.97
20	ITI Ltd.	23.65	16.15	681.12	465.12	-31.71
21	India Tourism Devp. Corpn. Ltd.	104.55	615.05	896.72	5275.25	488.28
22	Indian Oil Corpn. Ltd.	262.60	281.45	63,758.03	68334.72	7.18
23	MMTC Ltd.	783.45	199.25	78,345.00	19925	-74.57
24	MOIL Ltd.	250.65	221.95	4,210.92	3728.76	-11.45

S.No.	Company Name	BSE Closing Market Price of stocks as 31.03.2012 ( ₹ in crore)	BSE Closing Market Price of stocks as 31.03.2013 ( ₹ in crore)	Market Capitalization as on 31.03.2012	Market Capitalization as on 31.03.2013	% Change in Market Cap. (2013 over 2012)
25	Madras Fertilizer Ltd.	20*	11.9	322.22	119.72	-62.85
26	Mahanagar Telephone Nigam Ltd.	27.35	18.4	1,723.05	1159.2	-32.72
27	Mangalore Refinery & Petrochemicals Ltd.	67.90	49.6	11,900.15	8692.89	-26.95
28	NMDC Ltd.	161.10	137.55	63,871.57	54534.67	-14.62
29	NTPC Ltd.	162.70	142	134,153.71	117085.59	-12.72
30	National Aluminium Co. Ltd.	54.70	33.15	14,097.49	8543.55	-39.4
31	National Building Construction Corp. Ltd.		122.1		1465.2	
32	National Fertilizers Ltd.	71.80	44.55	3,522.35	2185.53	-37.95
33	Neyveli Lignite Corpn. Ltd.	85.75	65.9	14,386.36	11056.11	-23.15
34	Oil & Natural Gas Corpn. Ltd.	267.30	311.55	228,688.25	266546.29	16.55
35	Power Finance Corpn. Ltd.	184.00	181.5	24,286.74	23958.27	-1.35
36	Power Grid Corpn. Of India Ltd.	107.90	105.95	49,954.74	49051.94	-1.81
37	Rashtriya Chemicals & Fertilizers Ltd.	56.65	36.6	3,125.31	2019.18	-35.39
38	Rural Electrification Corpn. Ltd.	205.55	208.15	20,297.22	20553.96	1.26
39	Scooters India Ltd.	32.55	18.95	139.94	81.47	-41.78
40	Shipping Corpn. Of India Ltd.	62.00	40.6	2,887.95	1891.14	-34.52
41	State Trading Corpn. Of India Ltd.	255.15	135.95	1,530.90	815.7	-46.72
42	Steel Authority Of India Ltd.	94.05	62.35	38,846.42	25753.83	-33.7
43	NHPC	19.65	19.9	24,170.96	24478.48	1.27
44	Oil India Ltd.	514.95	511.25	30,955.50	30733.08	-0.72
45	Hindustan Fluorocarbons Ltd.	12.29	6.29	24.09	12.33	-48.82
46	Satlaj Jal Vidhyut Nigam Ltd	19.70	19	8,149.15	7859.59	-3.55
	Total Market Capitalisation of CPSEs			1,257,791.89	1,116,817.23	-11.21
	Total Market Capitalisation of BSE			6,214,941.00	6,331,351.61	1.87
	BSE Sensex			17,404.20	18,835.77	8.23
	Market Capitalisation of CPSEs as % of BSE Market Cap.			20.24	17.64	-12.85
	Remarks CPSEs as of BSE cap.					
	i) * As per NSE					
	ii) (A) IRCON have been delisted on 03/11/2011, (B) Maharashtra Elektros melt Ltd. has been merged with Steel Authority of India on 30/09/2011, (C) Hindustan Photophilms Corporation, (D) KIOCL has not trading.					

### 1.19 CPSEs and 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 1.7-1.11). In comparison to 2011-12, however, the profitability ratios in

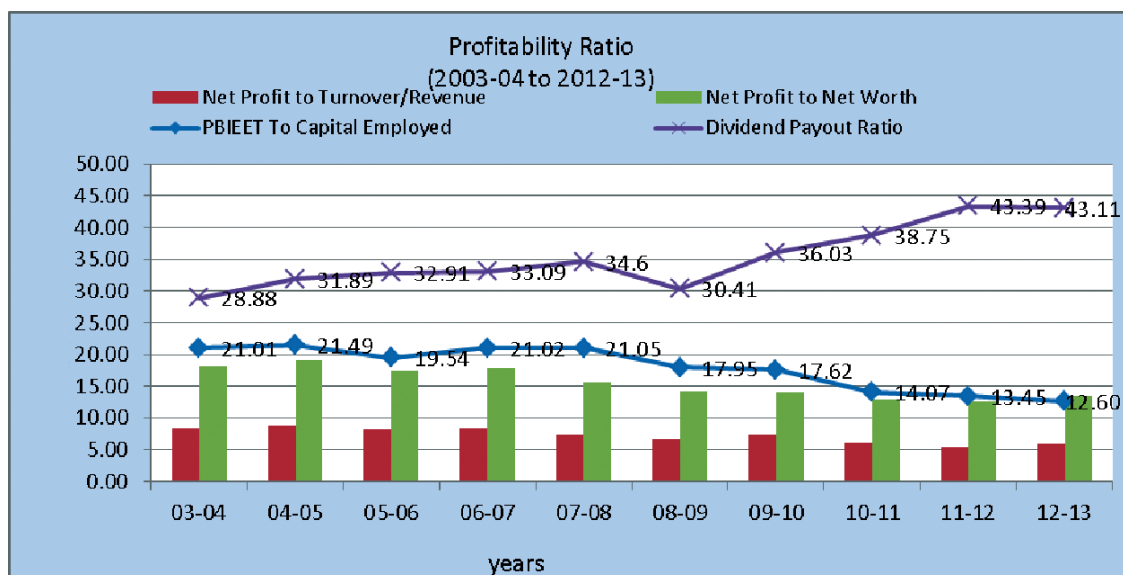
terms of net profit to turnover/revenue, net profit to net worth, gross margin to capital employed and net profit to capital employed significantly increased, whereas sales to capital employed and dividend payout has decreased in 2012-13. The ratios of profit before tax to net worth and interest to gross profit have increased in 2012-13 from the previous year.

**BOX-3**  
**Financial Ratio**

(In per cent)

Particulars	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12 -13
Sales to Capital employed	139.43	147.56	143.01	145.90	151.28	160.30	137.09	129.82	131.29	128.83
PBDITEP to Capital employed	28.15	28.26	25.66	26.91	26.91	23.55	23.26	19.04	18.04	17.00
PBET to Net worth	24.38	25.04	22.83	24.56	23.12	17.55	18.98	18.91	18.91	19.37
PBDIEET to Turnover/Revenue	20.19	19.15	17.95	18.45	17.79	14.67	16.97	14.67	13.74	13.20
PBIEET to Capital employed	21.01	21.49	19.54	21.02	21.05	17.95	17.62	14.07	13.45	12.60
PBIEET to Turnover/Revenue	15.07	14.57	13.67	14.41	13.92	11.18	12.85	10.84	10.25	9.78
PBEET to Turnover/Revenue	11.28	11.49	10.83	11.56	10.99	8.09	9.96	8.86	8.27	7.84
Net Profit to Turnover/Revenue	8.40	8.73	8.30	8.40	7.41	6.59	7.41	6.15	5.39	5.93
Net Profit to Capital Employed	11.71	12.88	11.88	12.26	11.21	10.57	10.15	7.98	7.08	7.63
Net Profit to Net Worth	18.16	19.02	17.50	17.85	15.60	14.28	14.12	12.98	12.66	13.54
Dividend payout Ratio	28.88	31.89	32.91	33.09	34.06	30.41	36.03	38.75	43.39	43.11
Tax Provision to PBEET	31.11	25.32	26.86	30.80	33.83	32.81	32.28	33.82	32.49	33.45
Interest to Gross Profit	18.72	16.04	15.78	19.77	21.06	27.60	22.54	18.30	19.24	19.86

Fig-1.7



The ratios are covered in Box No.04 for cognate group and table 1.16 for the operating CPSEs

#### BOX-4

##### Agriculture Sector

Ratio	2012-13	2011-12	2010-11	2009-10	2008-09
PAT/Net Worth	15.40%	17.41%	21.19%	27.95%	14.41%
EBDITA/Gross block	56.91%	69.70%	88.41%	103.58%	52.06%
EBDITA/Turover	9.86%	10.58%	11.18%	14.96%	11.45%
<b>ELECTRICITY Sector</b>					
Ratio	2012-13	2011-12	2010-11	2009-10	2008-09
PAT/Net Worth	12.48%	11.44%	10.89%	11.02%	9.78%
EBDITA/Gross block	11.85%	12.12%	12.22%	14.39%	11.11%
EBDITA/Turover	46.06%	43.62%	44.91%	52.43%	45.90%
<b>MANUFACTURING Sector</b>					
Ratio	2012-13	2011-12	2010-11	2009-10	2008-09
PAT/Net Worth	14.34%	12.14%	17.11%	24.32%	27.53%
EBDITA/Gross block	14.71%	18.47%	18.76%	21.36%	20.05%
EBDITA/Turover	4.91%	6.13%	6.80%	8.41%	6.24%
<b>MINING Sector</b>					
Ratio	2012-13	2011-12	2010-11	2009-10	2008-09
PAT/Net Worth	22.48%	26.88%	24.30%	22.79%	20.73%
EBDITA/Gross block	29.51%	32.88%	30.89%	28.93%	28.49%
EBDITA/Turover	53.96%	56.50%	55.93%	54.11%	49.40%
<b>SERVICES Sector</b>					
Ratio	2012-13	2011-12	2010-11	2009-10	2008-09
PAT/Net Worth	-2.02%	-5.83%	-3.02%	-2.10%	2.15%
EBDITA/Gross block	10.11%	8.20%	8.70%	11.02%	16.57%
EBDITA/Turover	9.23%	6.99%	8.17%	12.18%	16.45%

Fig 1.8

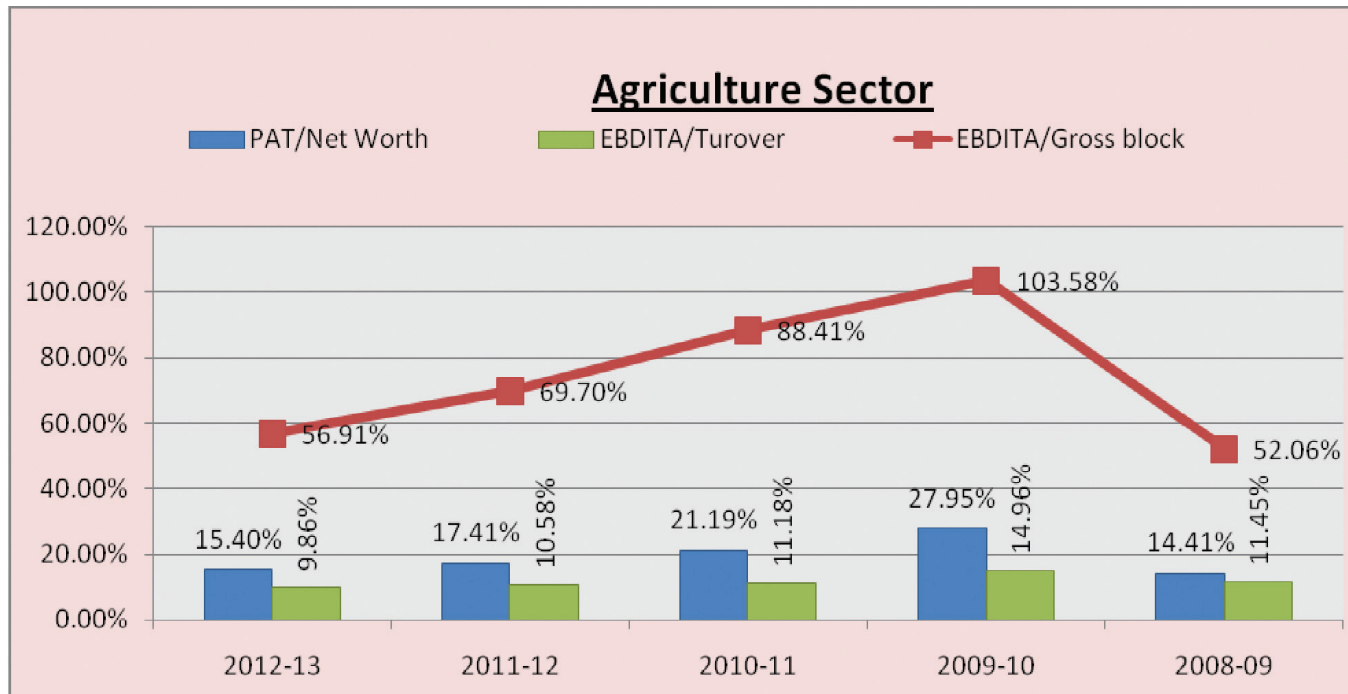


Fig 1.9

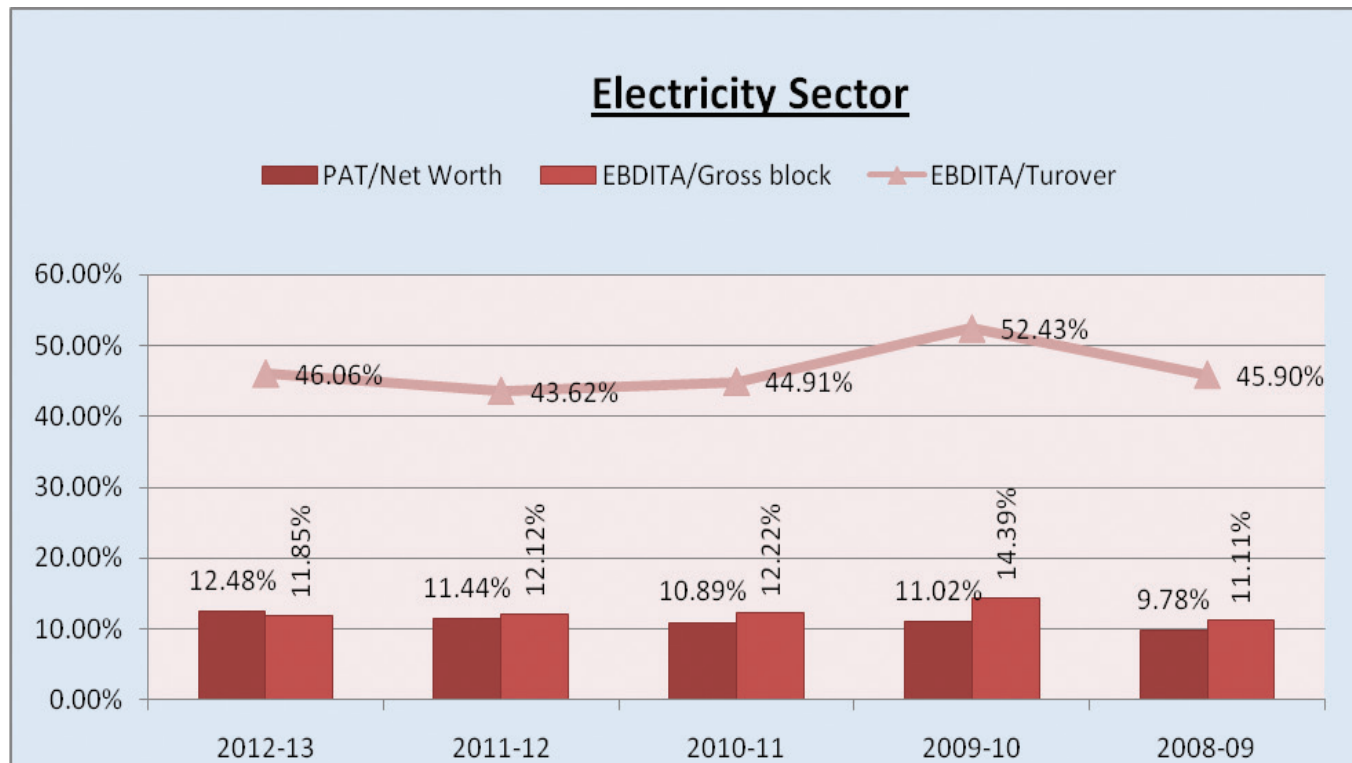


Fig 1.10

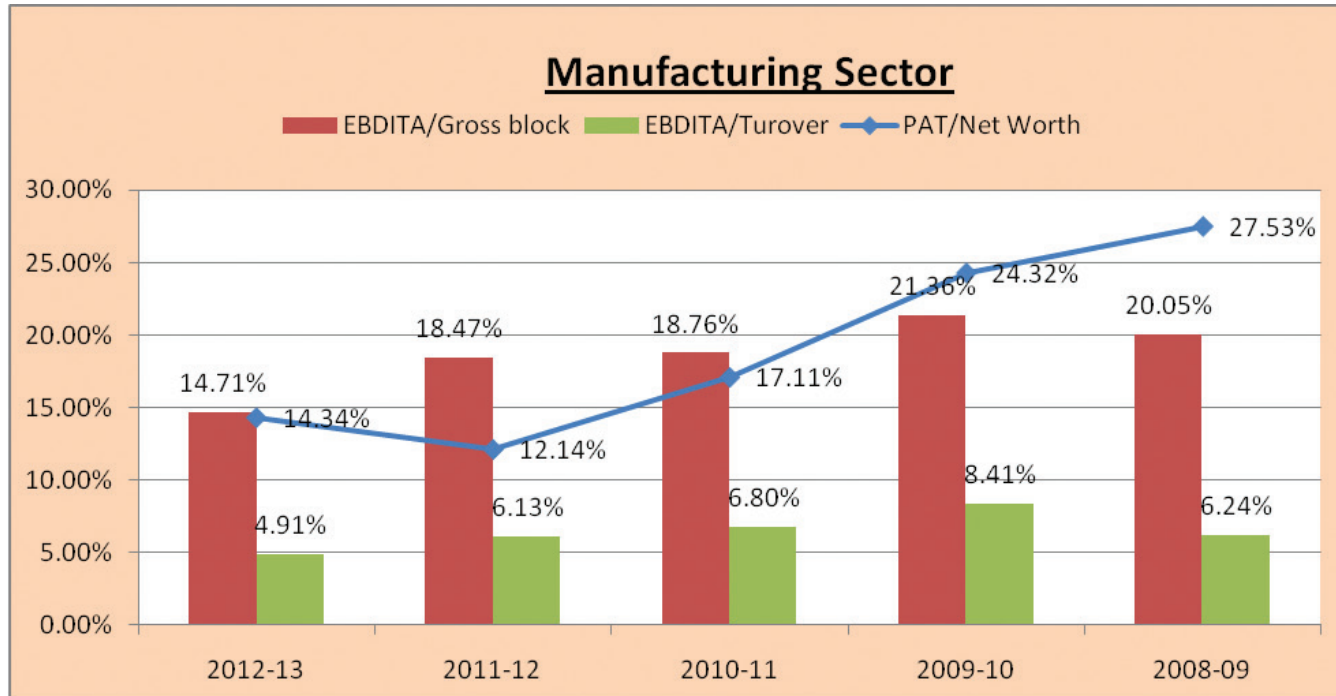
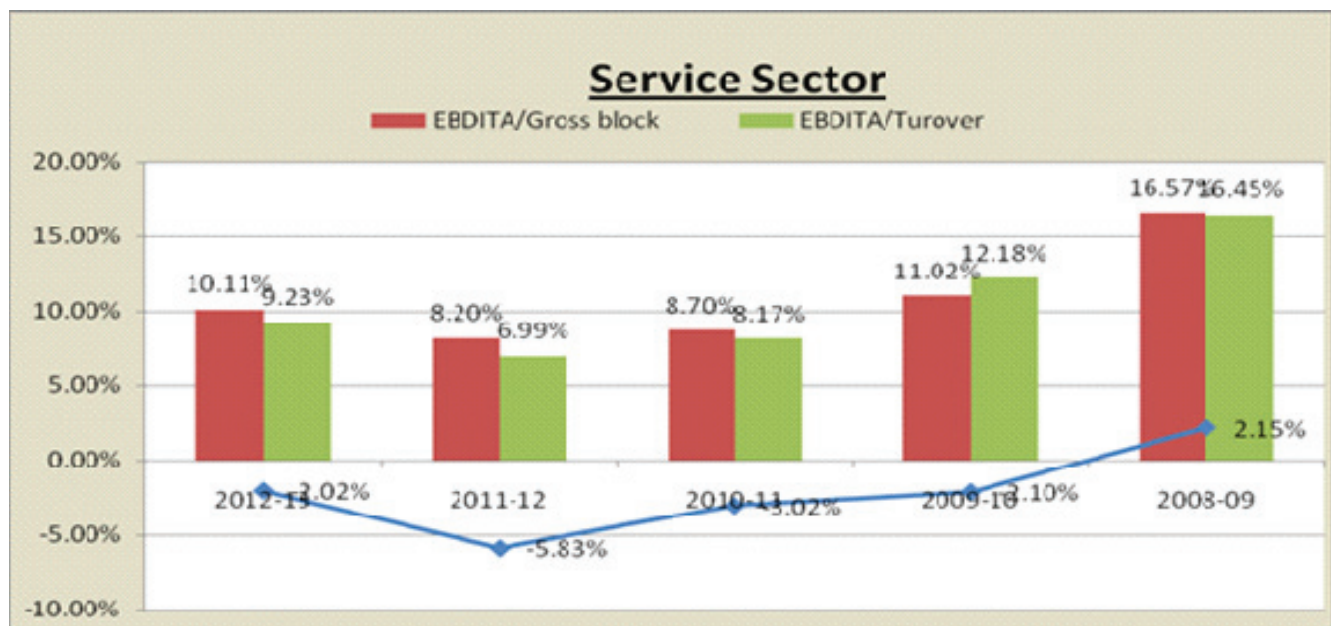


Fig 1.11



**Table 1.16**  
**Table Showing various Ratio of CPSE for the year 2012-13**

Table Showing various Ratio of CPSE for the year 2012-13

₹ in Crore

S.No	Name of CPSE	PAT	Networth	PAT/ NetWorth	EBDITA	Gross Block	EBDITA/ Gross Block	Turnover	EBDITA/ Turnover
1	AIR INDIA AIR TRANSPORT SERVICES LTD.	-1.29	-4.2	30.7%	-1.29	0.01	-12900%	74.3	-1.7%
2	AIR INDIA CHARTERS LTD.	-299.6	-1941.57	15.4%	165	4309.21	4%	1557.25	10.6%
3	AIR INDIA LTD.	-5198.55	-15641.72	33.2%	-1221.55	35344.12	-3%	16077.98	-7.6%
4	AIRLINE ALLIED SERVICES LTD.	-181.45	-876.83	20.7%	-168.03	4.05	-4149%	214.21	-78.4%
5	AIRPORTS AUTHORITY OF INDIA LTD.	735	8868.19	8.3%	2572.77	19552.34	13%	6725.51	38.3%
6	ANDAMAN & NICOBAR ISL. FOREST & PLANT. DEV.CORP.LTD	-35.71	-188.17	19.0%	-17.72	17.84	-99%	4.75	-373.1%
7	ANDREW YULE & COMPANY LTD.	11.35	147.71	7.7%	28.65	246.51	12%	323.18	8.9%
8	ANTRIX CORPORATION LTD.	177.07	937.02	18.9%	255.13	17.94	1422%	1168.74	21.8%
9	ARTIFICIAL LIMBS MFG. CORPN. OF INDIA	23.51	60.37	38.9%	24.44	29.58	83%	130.23	18.8%
10	ASSAM ASHOK HOTEL CORPN. LTD.	-0.22	-5.26	4.2%	-0.12	5.15	-2%	6.85	-1.8%
11	BALMER LAWRIE & CO. LTD.	162.77	723	22.5%	244.37	437.58	56%	2702.93	9.0%
12	BALMER LAWRIE INVESTMENTS LTD.	31.12	67.29	46.2%	32.61	0	0%	0	0.0%
13	BBJ CONSTRUCTION COMPANY LTD.	42.08	67.46	62.4%	60.01	17.46	344%	302.21	19.9%
14	BEL OPTRONICS DEVICES LTD.	5.76	190.44	3.0%	6.94	217.15	3%	147.05	4.7%
15	BEML LTD.	-79.87	2080.03	-3.8%	58.79	1325.56	4%	2998.87	2.0%
16	BENGAL CHEMICALS & PHARMACEUTICALS LTD.	-17.94	-19.7	91.1%	-5.98	173.2	-3%	34.2	-17.5%
17	BHARAT BHARI UDYOG NIGAM LTD.	0.36	122.08	0.3%	0.94	0.78	121%	15.23	6.2%
18	BHARAT COKING COAL LTD.	1498.8	550.97	272.0%	1938.01	4825.9	40%	10176.62	19.0%
19	BHARAT DYNAMICS LTD.	288.4	953.3	30.3%	460.62	781.07	59%	1074.71	42.9%
20	BHARAT ELECTRONICS LTD.	889.83	6322.86	14.1%	1246.08	2234.65	56%	6125.55	20.3%
21	BHARAT HEAVY ELECTRICALS LTD.	6614.73	30444.1	21.7%	10511.1	11954.85	88%	50963.46	20.6%
22	BHARAT HEAVY PLATE & VESSELS LTD.	35.04	-150.28	-23.3%	32.79	92.24	36%	242.6	13.5%

S.No	Name of CPSE	PAT	Networth	PAT/ NetWorth	EBDITA	Gross Block	EBDITA/ Gross Block	Turnover	EBDITA/ Turnover
23	BHARAT IMMUNOLOGICALS & BIOLOGICALS CORP. LTD.	5.02	33.36	15.0%	10.13	44.77	23%	172.97	5.9%
24	BHARAT PETRO RESOURCES LTD.	-382.64	1822.4	-21.0%	-381.28	190.09	-201%	0	0.0%
25	BHARAT PETROLEUM CORPN. LTD.	2642.9	16634.02	15.9%	7787.03	36094.52	22%	250649.26	3.1%
26	BHARAT PUMPS & COMPRESSORS LTD.	-27.91	112.41	-24.8%	-18.83	104.08	-18%	130.06	-14.5%
27	BHARAT SANCHAR NIGAM LTD.	-7884.44	63638.73	-12.4%	732.54	175815.31	0%	25654.81	2.9%
28	BHARAT WAGON & ENGG. CO. LTD.	-7.59	-32.52	23.3%	-6.22	22.79	-27%	20.71	-30.0%
29	BHEL ELECTRICAL MACHINES LTD.	-0.55	9.57	-5.7%	-0.06	10.62	-1%	26.53	-0.2%
30	BIECCO LAWRIE & CO. LTD.	-11.95	-1.88	635.6%	-10.09	18.24	-55%	48.07	-21.0%
31	BIRDS JUTE & EXPORTS LTD.	-8.65	-104.45	8.3%	-0.66	2.66	-25%	0	0.0%
32	BISRA STONE LIME COMPANY LTD.	-18.14	-24.78	73.2%	-16.1	19.92	-81%	27.81	-57.9%
33	BRAHMAPUTRA VALLEY FERTILIZER CORPN. LTD.	-32.64	-445.29	7.3%	102.48	1100.48	9%	569.99	18.0%
34	BRAITHWAITE & CO. LTD.	7.15	36.88	19.4%	14.09	59.8	24%	294.24	4.8%
35	BRIDGE & ROOF CO.(INDIA) LTD.	38.4	292.39	13.1%	96.34	260.96	37%	1320.45	7.3%
36	BRITISH INDIA CORPORATION LTD.	-75.05	-404.72	18.5%	-37.44	44.83	-84%	1.79	-2091.6%
37	BROADCAST ENGG. CONSULTANTS INDIA LTD.	-7.88	22.89	-34.4%	-6.39	19	-34%	41.18	-15.5%
38	BURN STANDARD COMPANY LTD.	-19.66	410.45	-4.8%	-11.59	530.89	-2%	209.87	-5.5%
39	CEMENT CORPN. OF INDIA LTD.	8.11	-142.15	-5.7%	21.96	769.41	3%	319.64	6.9%
40	CENTRAL COALFIELDS LTD.	1885.61	4008.08	47.0%	2926.32	5127.6	57%	9181.55	31.9%
41	CENTRAL COTTAGE INDUSTRIES CORPN. OF INDIA LTD.	0.25	21.85	1.1%	0.08	24.59	0%	77.53	0.1%
42	CENTRAL ELECTRONICS LTD.	-2.41	6.62	-36.4%	6.24	57.8	11%	192.16	3.2%
43	CENTRAL INLAND WATER TRANSPORT CORPN. LTD.	-23.93	-69.94	34.2%	8.58	110.55	8%	1.54	557.1%
44	CENTRAL MINE PLANNING & DESIGN INSTITUTE LTD.	25.05	134.89	18.6%	37.42	198.83	19%	601.05	6.2%
45	CENTRAL RAILSIDE WAREHOUSING CO. LTD.	16.47	82.72	19.9%	35.02	180.41	19%	83.5	41.9%

S.No	Name of CPSE	PAT	Networth	PAT/ NetWorth	EBDITA	Gross Block	EBDITA/ Gross Block	Turnover	EBDITA/ Turnover
46	CENTRAL WAREHOUSING CORPN.	139.55	1464.27	9.5%	248.04	1466.04	17%	1316.58	18.8%
47	CERTIFICATION ENGINEERS INTERNATIONAL LTD.	7.67	54.59	14.1%	11.54	4.12	280%	28.43	40.6%
48	CHENNAI PETROLEUM CORPORATION LTD.	-1766.84	2026.29	-87.2%	-854.4	8276.64	-10%	46859.24	-1.8%
49	COAL INDIA LTD.	9794.32	20516.16	47.7%	10718.64	518.83	2066%	379	2828.1%
50	COCHIN SHIPYARD LTD.	185.27	1175.7	15.8%	317.66	582.36	55%	1557.9	20.4%
51	CONTAINER CORPORATION OF INDIA LTD.	940.03	6281.13	15.0%	1384.79	4182.7	33%	4406.16	31.4%
52	COTTON CORPN. OF INDIA LTD.	32.7	199.87	16.4%	153.56	87.07	176%	2007.21	7.7%
53	CREDA HPCL BIOFUEL LTD.	-3.1	13.95	-22.2%	-0.32	8.07	-4%	0	0.0%
54	DELHI POLICE HOUSING CORPORATION LTD.	0.9	7.78	11.6%	1.34	0	0%	8.44	15.9%
55	DONYI POLO ASHOK HOTEL LTD.	0.04	2.12	1.9%	0.13	1.75	7%	2.17	6.0%
56	DREDGING CORPN. OF INDIA LTD.	20.51	1395.69	1.5%	113.22	1988.18	6%	634.92	17.8%
57	EASTERN COALFIELDS LTD.	1655.54	-2458.6	-67.3%	2108.86	5617.08	38%	9769.91	21.6%
58	EASTERN INVESTMENT LTD.	1.47	280.66	0.5%	1.96	0.09	2178%	0.55	356.4%
59	EdCIL(India) Ltd.	5.26	23.64	22.3%	8.47	10.12	84%	60.85	13.9%
60	ELECTRONICS CORPN. OF INDIA LTD.	25.88	649.75	4.0%	77.44	300.46	26%	1729.4	4.5%
61	ENGINEERING PROJECTS (INDIA) LTD.	21.46	189.94	11.3%	38.89	18.53	210%	840.61	4.6%
62	ENGINEERS INDIA LTD.	628.58	2237.55	28.1%	901.81	329.09	274%	2452.19	36.8%
63	ENNORE PORT LTD.	173.37	641.23	27.0%	280.75	1124.66	25%	320.21	87.7%
64	EXPORT CREDIT GUARANTEE CORPN.OF INDIA LTD.	242.79	2436.99	10.0%	356.21	198.03	180%	801.73	44.4%
65	FCI ARAVALI GYPSUM & MINERALS (INDIA) LTD.	28.49	131.07	21.7%	38.64	3.94	981%	73.84	52.3%
66	FERRO SCRAP NIGAM LTD.	1.96	139.81	1.4%	14.75	190.19	8%	186.79	7.9%
67	FERTILIZER CORPN. OF INDIA LTD.	10778.08	5.1	211334.9%	38.42	1126.37	3%	0	0.0%
68	FERTILIZERS & CHEMICALS (TRAVANCORE) LTD.	-353.96	-191.75	184.6%	-151.74	1434.4	-11%	2363.83	-6.4%
69	FOOD CORPN. OF INDIA	-4.35	2173.96	-0.2%	6419.15	1513.99	424%	120844.25	5.3%

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70	FRESH & HEALTHY ENTERPRISES LTD.	-9.48	15.8	-60.0%	1.05	81.81	1%	38.83	2.7%
71	GAIL (INDIA) LTD.	4022.2	24227.8	16.6%	7233.73	40126.79	18%	48195.29	15.0%
72	GAIL GAS LTD.	26.94	286.83	9.4%	49.84	472.88	11%	733.43	6.8%
73	GARDEN REACH SHIPBUILDERS & ENGINEERS LTD.	131.54	863.32	15.2%	207.58	504.08	41%	1531.36	13.6%
74	GOA SHIPYARD LTD.	15.5	640.53	2.4%	68.53	452.68	15%	509.7	13.4%
75	HANDICRAFTS & HANDLOOM EXPORTS CORP. OF INDIA LTD.	2.49	18.32	13.6%	4.37	17	26%	4161.47	0.1%
76	HEAVY ENGINEERING CORPN. LTD.	20.38	-154.55	-13.2%	37.13	382.11	10%	749.7	5.0%
77	HINDUSTAN AERONAUTICS LTD.	2996.91	13378.19	22.4%	4098.3	4376.89	94%	14329.29	28.6%
78	HINDUSTAN ANTIBIOTICS LTD.	-69.37	-278.71	24.9%	-34.88	221.68	-16%	52.08	-67.0%
79	HINDUSTAN CABLES LTD.	-885.05	-5312.6	16.7%	-307.35	578.87	-53%	0.07	-439071.4%
80	HINDUSTAN COPPER LTD.	355.64	1645.03	21.6%	558.87	1394.67	40%	1473.42	37.9%
81	HINDUSTAN FERTILIZER CORPN. LTD.	-380.53	-8550.33	4.5%	2.24	347.12	1%	0	0.0%
82	HINDUSTAN FLUOROCARBONS LIMITED	0.95	-23.69	-4.0%	3.69	71.58	5%	44.48	8.3%
83	HINDUSTAN INSECTICIDES LTD.	2.92	89.95	3.2%	12.17	141.18	9%	301.11	4.0%
84	HINDUSTAN NEWSPRINT LTD.	-18.09	180.93	-10.0%	-0.9	436.47	0%	323.64	-0.3%
85	HINDUSTAN ORGANIC CHEMICALS LTD.	-137.99	-114.91	120.1%	-86.13	777.96	-11%	624.87	-13.8%
86	HINDUSTAN PAPER CORPORATION LTD.	-151.87	530.34	-28.6%	-197.65	987.66	-20%	595.45	-33.2%
87	HINDUSTAN PETROLEUM CORPN. LTD.	904.71	13726.4	6.6%	5477.39	42179.08	13%	215877.41	2.5%
88	HINDUSTAN PHOTO FILMS MANUFACTURING CO. LTD.	-1560.59	-10897.04	14.3%	-16.23	715.97	-2%	3.74	-434.0%
89	HINDUSTAN PREFAB LTD.	-3.7	8.92	-41.5%	-3.17	8.57	-37%	164.94	-1.9%
90	HINDUSTAN SALTS LTD.	0.74	25.02	3.0%	3.32	11.06	30%	8.73	38.0%
91	HINDUSTAN SHIPYARD LTD.	-55.17	-769.17	7.2%	-21.92	251.38	-9%	483.84	-4.5%
92	HINDUSTAN STEELWORKS COSTN. LTD.	-19.81	-1391.78	1.4%	91.94	90.63	101%	1238.53	7.4%

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93	HINDUSTAN VEGETABLE OILS CORPN. LTD.	-11.46	-342.81	3.3%	8.7	7.19	121%	0.01	87000.0%
94	HLL LIFECARE LTD.	30.07	378.21	8.0%	72.68	367.86	20%	835.66	8.7%
95	HMT (INTERNATIONAL) LTD.	4.48	31.02	14.4%	7.04	8.35	84%	34.09	20.7%
96	HMT BEARINGS LTD.	-2.07	-76.92	2.7%	2.61	30.23	9%	12.55	20.8%
97	HMT CHINAR WATCHES LTD.	-51.16	-482.3	10.6%	1.96	12.16	16%	0.36	544.4%
98	HMT LTD.	-145.37	390.43	-37.2%	-37.79	139.37	-27%	100.95	-37.4%
99	HMT MACHINE TOOLS LTD.	-43.65	-201.66	21.6%	-12.16	345.21	-4%	239.44	-5.1%
100	HMT WATCHES LTD.	-242.48	-2012.66	12.0%	-52.83	188.95	-28%	11.06	-477.7%
101	HOOGHLY DOCK AND PORT ENGINEERS LTD.	-39.84	-239.15	16.7%	-37.08	21.41	-173%	5.13	-722.8%
102	HOOGHLY PRINTING COMPANY LTD.	0.08	3.73	2.1%	0.68	6.42	11%	9.5	7.2%
103	HOTEL CORPN. OF INDIA LTD.	-35.62	-60.57	58.8%	-33.84	80.94	-42%	45.28	-74.7%
104	HOUSING & URBAN DEV. CORPN. LTD.	700.56	6513.96	10.8%	1066.66	175.95	606%	2866.35	37.2%
105	HPCL BIOFUELS LTD.	-147.22	4.83	-3048.0%	-25.77	720.09	-4%	95.49	-27.0%
106	HSCC (INDIA) LTD.	22.57	106.91	21.1%	36.34	12.24	297%	33.79	107.5%
107	I T I LTD.	-182.06	1172.41	-15.5%	-204.49	3696.69	-6%	922	-22.2%
108	IDPL (TAMILNADU) LTD.	-3.41	-19.03	17.9%	-3.09	61.73	-5%	13.44	-23.0%
109	INDIA INFRASTRUCTURE FINANCE CO. LTD.	1046.99	4858.17	21.6%	1348.39	2.31	58372%	3279.02	41.1%
110	INDIA TOURISM DEV. CORPN. LTD.	3	311.76	1.0%	9.53	146.46	7%	410.03	2.3%
111	INDIA TRADE PROMOTION ORGANISATION	152.29	1112.92	13.7%	154.17	113	136%	222.55	69.3%
112	INDIAN DRUGS & PHARMACEUTICALS LTD.	-239.58	-7314.89	3.3%	3.53	20.47	17%	60.71	5.8%
113	INDIAN MEDICINES & PHARMACEUTICAL CORPN. LTD.	4.46	50.51	8.8%	5.4	15.57	35%	29.67	18.2%
114	INDIAN OIL CORPORATION LTD.	5005.17	61124.31	8.2%	17257.94	123112.6	14%	470650.59	3.7%
115	INDIAN OIL-CREDA BIOFUELS LTD.	0	21.07	0.0%	0.01	20.03	0%	1.81	0.6%
116	INDIAN RAILWAY CATERING AND TOURISM CORPN. LTD.	58.84	291.77	20.2%	115.57	207.52	56%	680.77	17.0%

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117	INDIAN RAILWAY FINANCE CORPORATION LTD.	521.57	6394.28	8.2%	1454.54	17.23	8442%	5549.59	26.2%
118	INDIAN RARE EARTHS LTD.	156.59	736.91	21.2%	273.19	580.31	47%	556.92	49.1%
119	INDIAN RENEWABLE ENERGY DEVT.AGENCY LTD.	202.65	1688.35	12.0%	254.43	59.95	424%	719.07	35.4%
120	INDIAN VACCINE CORP. LTD.	0.65	16.32	4.0%	1.98	17.6	11%	0	0.0%
121	INSTRUMENTATION LTD.	-54.09	-88.4	61.2%	-26.13	77.96	-34%	172.06	-15.2%
122	IRCON INFRASTRUCTURE & SERVICES LTD.	1.92	44.53	4.3%	2.79	88.86	3%	12.58	22.2%
123	IRCON INTERNATIONAL LTD.	729.99	2300.37	31.7%	1068.56	499.12	214%	4231.78	25.3%
124	IRRIGATION & WATER RESOURCES FINANCE CORPORATION LTD.	8.85	130.58	6.8%	13.05	0.05	26100%	1.48	881.8%
125	J & K MINERAL DEVELOPMENT CORPN. LTD.	-0.96	-7.76	12.4%	-0.72	18.26	-4%	0	0.0%
126	JUTE CORPN. OF INDIA LTD.	13.37	76.5	17.5%	19.24	3.76	512%	174.61	11.0%
127	KANTI BIJLEE UTPADAN NIGAM LTD.	-12.91	1002.96	-1.3%	9.69	2253.79	0%	9.88	98.1%
128	KARNATAKA ANTIBIOTICS & PHARMACEUTICALS LTD.	11.29	96.7	11.7%	17.83	54.06	33%	227.2	7.8%
129	KARNATAKA TRADE PROMOTION ORGANISATION	5.74	25.03	22.9%	6.72	19.1	35%	6.69	100.4%
130	KIOCL LTD.	31.05	2094.24	1.5%	75.56	1647.74	5%	1159.12	6.5%
131	KONKAN RAILWAY CORPORATION LTD.	-235.41	1340.2	-17.6%	190.54	4153.42	5%	1085.69	17.6%
132	KUMARAKRUPPA FRONTIER HOTELS LTD.	5.33	20.89	25.5%	5.63	6.8	83%	5.01	112.4%
133	M M T C LTD.	-70.62	1340.78	-5.3%	360.68	207.98	173%	28599.41	1.3%
134	M S T C LTD.	130.73	695.96	18.8%	330.47	30.37	1088%	6366.03	5.2%
135	MADHYA PRADESH ASHOK HOTEL CORPN. LTD.	0.64	-0.05	-1280.0%	1.23	5.78	21%	6.43	19.1%
136	MADRAS FERTILIZERS LTD.	24.44	-306.23	-8.0%	139.78	955.19	15%	2350.55	5.9%
137	MAHANADI COALFIELDLS LTD.	4212.44	8939.12	47.1%	6447.97	5127.54	126%	10784.18	59.8%
138	MAHANAGAR TELEPHONE NIGAM LTD.	-5321.12	-2784.42	191.1%	-2663.93	31602.26	-8%	3428.66	-77.7%

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139	MANGALORE REFINERY & PETROCHEMICALS LTD.	-756.91	6467.69	-11.7%	411.66	18892.94	2%	68838.26	0.6%
140	MAZAGON DOCK LTD.	412.72	1814.29	22.7%	654.43	391	167%	2331.39	28.1%
141	MECON LTD.	101.02	414.21	24.4%	160.42	135.78	118%	564.83	28.4%
142	MILLENNIUM TELECOM LTD.	-0.2	4.81	-4.2%	0.04	0.38	11%	0.2	20.0%
143	MINERAL EXPLORATION CORPN. LTD.	20.66	170.36	12.1%	37.07	134.87	27%	165.38	22.4%
144	MISHRA DHATU NIGAM LTD.	82.52	406.76	20.3%	129.79	334.77	39%	558.59	23.2%
145	MOIL LTD.	431.72	2765.64	15.6%	669.81	506.88	132%	975.03	68.7%
146	MUMBAI RAILWAY VIKAS CORPORATION LTD.	12.24	175.83	7.0%	14.28	51.57	28%	33.12	43.1%
147	NAGALAND PULP & PAPER COMPANY LTD.	-14.58	-31.74	45.9%	-10.44	77.13	-14%	1.24	-841.9%
148	NATIONAL ALUMINIUM COMPANY LTD.	592.83	11932.45	5.0%	1417.92	15176.89	9%	7354.2	19.3%
149	NATIONAL BACKWARD CLASSES FINANCE & DEVPCO.	25.69	1023.14	2.5%	25.8	2.81	918%	34.3	75.2%
150	NATIONAL BLDG. CONSTN. CORPN. LTD.	207.5	950.69	21.8%	308.31	37.99	812%	3198.48	9.6%
151	NATIONAL FERTILIZERS LTD.	-170.73	1583.7	-10.8%	74.19	7075.62	1%	6746.73	1.1%
152	NATIONAL FILM DEV. CORPN. LTD.	6.35	22.76	27.9%	9.53	15.51	61%	238.65	4.0%
153	NATIONAL HANDICAPPED FINANCE & DEVPT. CORPN.	4.64	247.74	1.9%	4.71	1.26	374%	9.37	50.3%
154	NATIONAL HANDLOOM DEVELOPMENT CORPORATION LTD.	6.97	40.64	17.2%	10.95	6.59	166%	1470.72	0.7%
155	NATIONAL INFORMATICS CENTRE SERVICES INCORPORATED	27.04	372.96	7.3%	78.11	73.26	107%	389.24	20.1%
156	NATIONAL JUTE MANUFACTURES CORPORATION LTD.	-16	-237.64	6.7%	-15.41	57.04	-27%	15.7	-98.2%
157	NATIONAL MINORITIES DEVP. & FINANCE CORPORATION	43.61	1448.63	3.0%	44.09	38.53	114%	30.89	142.7%
158	NATIONAL PROJECTS CONSTRUCTION CORPN. LTD.	50.97	47.14	108.1%	63.42	44.02	144%	1155.04	5.5%
159	NATIONAL RESEARCH DEVELOPMENT CORPN.	-1.72	7.04	-24.4%	-2.37	2.32	-102%	5.78	-41.0%

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160	NATIONAL SAFAI KARAMCHARIS FINANCE & DEVPT. CORPN	5.76	438.06	1.3%	5.83	0.93	627%	9.62	60.6%
161	NATIONAL SCHEDULED CASTES FINANCE & DEVP. CORPN.	25.18	1044.39	2.4%	25.42	9.49	268%	42.79	59.4%
162	NATIONAL SCHEDULED TRIBES FINANCE & DEVP. CORPN.	6.74	526.62	1.3%	17.67	6.24	283%	14.02	126.0%
163	NATIONAL SEEDS CORPN. LTD.	44.3	217.93	20.3%	70.5	57.74	122%	684.78	10.3%
164	NATIONAL SMALL INDUSTRIES CORPN. LTD.	62.35	452.13	13.8%	225.66	125.8	179%	1567.5	14.4%
165	NATIONAL TEXTILE CORPN. LTD.	85.12	1945.47	4.4%	127.75	1787.02	7%	1025.97	12.5%
166	NEPA LTD.	-84.08	-587.68	14.3%	-23.45	106.2	-22%	132.2	-17.7%
167	NEYVELI LIGNITE CORPN. LTD.	1459.75	12951.33	11.3%	2592.01	17700.54	15%	5600.43	46.3%
168	NHDC LTD.	575.64	5723.74	10.1%	1195.92	7211.15	17%	1095.45	109.2%
169	NHPC LTD.	2348.22	27840.5	8.4%	4316.79	45429.08	10%	5165.4	83.6%
170	NMDC Ltd.	6342.37	27510.96	23.1%	9614.07	5818.04	165%	10713.44	89.7%
171	NORTH EASTERN HANDICRAFTS & HANDLOOM DEV.CORPN. LTD.	-1.5	-31.86	4.7%	-1.4	1.28	-109%	12.99	-10.8%
172	NORTH EASTERN ELECTRIC POWER CORPORATION LTD.	242.3	5006.02	4.8%	454.27	8377.83	5%	1325.24	34.3%
173	NORTH EASTERN REGIONAL AGRI. MARKETING CORP.LTD.	-2.82	1.42	-198.6%	-1.62	9.45	-17%	43.71	-3.7%
174	NORTHERN COALFIELDS LTD.	2682.13	9746.07	27.5%	4735.37	7670.67	62%	9359.93	50.6%
175	NTPC ELECTRIC SUPPLY COMPANY LTD.	-24.59	28	-87.8%	-24.48	2.19	-1118%	16.34	-149.8%
176	NTPC LTD.	12619.39	80387.51	15.7%	20215.64	140355.12	14%	66200.24	30.5%
177	NTPC VIDYUT VYAPAR NIGAM LTD.	-34.84	377.99	-9.2%	63.1	0.83	7602%	3042.96	2.1%
178	NUCLEAR POWER CORPN. OF INDIA LTD.	2100.99	26930.52	7.8%	4133.17	42947.05	10%	7961.51	51.9%
179	NUMALIGARH REFINERY LTD.	144.26	2757.45	5.2%	515.28	3878.29	13%	8757.01	5.9%
180	OIL & NATURAL GAS CORPORATION LTD.	20925.7	124453.22	16.8%	48988.63	236567.76	21%	83308.96	58.8%
181	OIL INDIA LTD.	3589.34	19211.48	18.7%	6123.46	12968.81	47%	9947.57	61.6%

S.No	Name of CPSE	PAT	Networth	PAT/ NetWorth	EBDITA	Gross Block	EBDITA/ Gross Block	Turnover	EBDITA/ Turnover
182	ONGC VIDESH LTD.	3929.14	29166.59	13.5%	10662.36	67967.39	16%	17557.83	60.7%
183	ORISSA DRUGS & CHEMICALS LTD.	0.9	-13.64	-6.6%	1.47	1.94	76%	13.72	10.7%
184	ORISSA MINERAL DEVELOPMENT COMPANY LTD.	12.86	812.96	1.6%	35.07	154.63	23%	0	0.0%
185	P E C LTD.	96.96	362.04	26.8%	282.85	6.26	4518%	12182.83	2.3%
186	PAWAN HANS HELICOPTERS LTD.	28.36	503.93	5.6%	130.69	1451.76	9%	458.18	28.5%
187	PFC CAPITAL ADVISORY SERVICE LTD.	0.85	1	85.0%	1.28	0.01	12800%	1.71	74.9%
188	PFC CONSULTING LTD.	16.38	102.42	16.0%	23.6	0.84	2810%	27.21	86.7%
189	PFC GREEN ENERGY LTD.	-0.4	107.97	-0.4%	-0.24	0.04	-600%	0.05	-480.0%
190	PONDICHERRY ASHOK HOTEL CORPN. LTD.	-0.3	0.73	-41.1%	-0.09	3.48	-3%	1.74	-5.2%
191	POWER FINANCE CORPORATION	4419.6	24054.12	18.4%	5972.74	109.26	5467%	17260.27	34.6%
192	POWER GRID CORPORATION OF INDIA LTD.	4234.5	26356.5	16.1%	11532	115423.59	10%	12757.85	90.4%
193	POWER SYSTEM OPERATION CORPORATION LTD.	85.65	188.12	45.5%	137.58	294.72	47%	220.04	62.5%
194	PRIZE PETROLEUM COMPANY LTD.	-1.26	37.34	-3.4%	-0.68	23.44	-3%	7.21	-9.4%
195	PROJECTS & DEVELOPMENT INDIA LTD.	10.71	137.11	7.8%	17.89	63.25	28%	68.41	26.2%
196	RAIL VIKAS NIGAM LTD.	135.55	2417.61	5.6%	171.36	25.44	674%	2116.85	8.1%
197	RAILTEL CORPORATION INDIA LTD.	111.59	796.61	14.0%	230.46	1010.67	23%	362.07	63.7%
198	RAJASTHAN DRUGS & PHARMACEUTICALS LTD.	0.8	25.05	3.2%	4.1	21.88	19%	85.67	4.8%
199	RAJASTHAN ELECTRONICS AND INSTRUMENTS LTD.	26.37	71.58	36.8%	41.77	33.37	125%	239.62	17.4%
200	RANCHI ASHOK BIHAR HOTEL CORPN. LTD.	-0.95	-3.29	28.9%	-0.87	2.66	-33%	2.3	-37.8%
201	RASHTRIYA CHEMICALS AND FERTILIZERS LTD.	280.9	2355.29	11.9%	641.52	3869.45	17%	7038.66	9.1%
202	RASHTRIYA ISPAT NIGAM LTD.	352.83	12477.32	2.8%	1072.6	22575.78	5%	13565.28	7.9%
203	REC POWER DISTRIBUTION CO. LTD.	10.81	26.88	40.2%	16.09	0.72	2235%	29.82	54.0%
204	REC TRANSMISSION PROJECT CO. LTD.	2.93	45.17	6.5%	4.47	0	0%	0	0.0%
205	RICHARDSON & CRUDDAS(1972) LTD.	-29.49	-388.26	7.6%	13.4	32.2	42%	74.16	18.1%

S.No	Name of CPSE	PAT	Networth	PAT/ NetWorth	EBDITA	Gross Block	EBDITA/ Gross Block	Turnover	EBDITA/ Turnover
206	MITES LTD.	245.44	1195	20.5%	360.89	288.27	125%	1017.85	35.5%
207	RURAL ELECTRIFICATION CORPN. LTD.	3817.62	17454.38	21.9%	5167.7	105.3	4908%	13518.86	38.2%
208	SAIL REFRACTORY COMPANY LTD.	10.18	54.46	18.7%	16.6	24.53	68%	107.08	15.5%
209	SAMBHAR SALTS LTD.	0.3	-3.52	-8.5%	2.39	28.24	8%	16.66	14.3%
210	SCOOTERS INDIA LTD.	-6	37.59	-16.0%	-2.82	58.52	-5%	209.82	-1.3%
211	SECURITY PRINTING & MINTING CORPN. INDIA LTD.	423.49	5574.93	7.6%	693.96	2412.37	29%	3717.46	18.7%
212	SHIPPING CORPORATION OF INDIA LTD.	-114.31	6616.15	-1.7%	554.15	16746.72	3%	4198.04	13.2%
213	SJVN LTD.	1052.34	8410.01	12.5%	1685.31	11871.54	14%	1682.1	100.2%
214	SOUTH EASTERN COALFIELDS LTD.	4299.03	8625.69	49.8%	6727	8480.54	79%	21408.13	31.4%
215	STATE FARMS CORPORATION OF INDIA LTD.	42.58	247.37	17.2%	61.87	97.22	64%	468.05	13.2%
216	STATE TRADING CORPN. OF INDIA LTD.	17.95	589.93	3.0%	243.97	109.11	224%	19041.63	1.3%
217	STCL LTD.	-296.12	-2096.75	14.1%	2.84	12.17	23%	105.56	2.7%
218	STEEL AUTHORITY OF INDIA LTD.	2170.35	41024.64	5.3%	5620.62	78593.27	7%	49986.9	11.2%
219	TAMIL NADU TRADE PROMOTION ORGANISATION	21.67	100.97	21.5%	23.88	68.73	35%	25.94	92.1%
220	TELECOMMUNICATIONS CONSULTANTS (INDIA) LTD.	15.76	441.15	3.6%	42.32	242.01	17%	682.05	6.2%
221	THDC LTD.	531.38	6771.49	7.8%	1676.96	11987.96	14%	1956.14	85.7%
222	TRIVENI STRUCTURALS LTD.	-75.87	-741.24	10.2%	-25.87	19.65	-132%	1.52	-1702.0%
223	TUNGABHADRA STEEL PRODUCTS LTD.	-31.15	-370.96	8.4%	-3.68	20.58	-18%	1.3	-283.1%
224	TYRE CORPORATION OF INDIA LTD.	-16.36	-8.55	191.3%	-14.69	119.09	-12%	3.96	-371.0%
225	URANIUM CORPORATION OF INDIA LTD.	90.79	1796.61	5.1%	250.16	2910.38	9%	827.16	30.2%
226	UTKAL ASHOK HOTEL CORPN. LTD.	-0.61	-15.22	4.0%	-0.38	2.88	-13%	0	0.0%
227	VIGNYAN INDUSTRIES LTD.	-2.71	5.42	-50.0%	-1.05	16.57	-6%	27.47	-3.8%
228	WAPCOS LTD.	57.32	207.74	27.6%	86.35	20.63	419%	567.25	15.2%
229	WESTERN COALFIELDS LTD.	324.3	3460.02	9.4%	620.27	4807.36	13%	7205.51	8.6%
	<b>Total</b>	<b>115299.04</b>	<b>851245.83</b>	<b>13.5%</b>	<b>256826.19</b>	<b>1529151.1</b>	<b>17%</b>	<b>1945777</b>	<b>13.2%</b>

## Chapter 2

# Investment in Central Public Sector Enterprises

2.1 The aggregate real investment in Central Public Sector Enterprises (CPSEs) measured in terms of 'gross block' went up from ₹ 1403074 crore in 2011-12 to ₹ 1548053 crore in 2012-13, showing an increase of ₹ 144979 crore or a growth of 10.33 percent over the previous year. Gross Fixed Capital Formation (GFCF) of the economy at current prices is estimated at ₹ 29,64,677 crore in 2012-13 as against ₹ 27,49,072 crore in 2011-12. At constant (2004-05) prices, the GFCF of the Indian economy is estimated at ₹ 19,29,988 crore in 2012-13 as against ₹ 18,97,309 crore

in 2011-12. In terms of GDP at market prices, the rates of GFCF of the Indian economy at current and constant (2004-05) prices during 2012-13 are estimated at 29.6 percent and 33.2 percent, respectively, as against the corresponding rates of 30.6 percent and 33.7 percent, respectively in 2011-12. In terms of GFCF of the country, the share of gross block in CPSEs decreased over the previous year, which went down from 6.0 per cent of the GFCF of the economy in 2011-12 to 4.8 percent in 2012-13.

**Table 2.1**  
**Growth in real investment / Gross Block**

Year	Accumulated Gross Block @ in CPSEs	Gross Block during the year (₹crore)	Growth over the previous year (in %)
(1)	(2)	(3)	(4)
2002-03	525301	34903	7.12
2003-04	596727	71426	13.60
2004-05	649245	52519	8.80
2005-06	715108	65863	10.14
2006-07	782668	67560	9.45
2007-08	862240	79572	10.17
2008-09	978167	115927	13.44
2009-10	1129983	151816	15.52
2010-11	1237051	107068	9.48
2011-12	1403074	166023	13.42
2012-13	1548053	144979	10.33

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, money received against share warrents and long term loans) grew from ₹ 29 crore in 5 enterprises in 1951

to ₹ 850599 crore in 277 enterprises as on 31.3.2013 (Table 2.2). The financial investment during 2012-13 over 2011-12, moreover, increased by ₹ 121301 crore or by 16.63 percent.

**Table 2.2**  
**Movement in Growth of (Financial) Investment #**

Particulars	Total investment (₹ in crore)	Enterprises (Nos.)
(1)	(2)	(3)
At the commencement of the 1st Five Year Plan (1.4.1951)	29	5
At the commencement of the 2nd Five Year Plan (1.4.1956)	81	21
At the commencement of the 3rd Five Year Plan (1.4.1961)	948	47
At the end of 3rd Five Year Plan (31.3.1966)	2410	73
At the commencement of the 4th Five Year Plan (1.4.1969)	3897	84
At the commencement of the 5th Five Year Plan (1.4.1974)	6237	122
At the end of 5th Five Year Plan (31.3.1979)	15534	169
At the commencement of the 6th Five Year Plan (1.4.1980)	18150	179
At the commencement of the 7th Five Year Plan (1.4.1985)	42673	215
At the end of 7th Five Year Plan (31.3.1990)	99329	244
At the commencement of the 8th Five Year Plan (1.4.1992)	135445	246
At the end of 8th Five Year Plan (31.3.1997)	213610	242
At the end of 9th Five Year Plan (31.3.2002)	324614	240
At the end of 10th Five Year Plan (31.3.2007)	420771	247
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)	603975	248
At the end of fifth year of Eleventh Five Year Plan (31.3.2012)	729298	260
At the commencement of first year of Twelfth Five Year Plan (31.3.2013)	850599	277

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

### 2.3 Changing Structure of Financial Investment

The structure of financial investment in CPSEs has undergone some change over the year (Table 2.3). While the share of 'paid-up capital' in total (financial) investment was 32.57 percent during 2002-03, it declined to 22.12 percent in 2011-12 further to 21.49 percent in 2012-13. The share of 'long-

term loans', on the other hand, went up from 66.56 percent in 2002-03 to 77.53 percent in 2011-12 and to 78.22 percent in 2012-13 (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	Money received against share warrant	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 (100.00)
As on 31.3.2004	111874 (31.96)	7087 (2.02)	- -	231033 (66.01)	349994 (100.00)
As on 31.3.2005	117551 (32.84)	6494 (1.81)	- -	233894 (65.34)	357939 (100.00)
As on 31.3.2006	120844 (1.54)	6204 (29.93)	- -	276658 (68.53)	40370 (100.00)
As on 31.3.2007	125323 (29.80)	6306 (1.50)	- -	288847 (68.70)	420476 (100.00)
As on 31.3.2008	131232 (34.71)	3090 (6.78)	- -	321232 (70.51)	455554 (100.00)
As on 31.3.2009	138734 (27.02)	3222 (0.62)	- -	371576 (72.36)	513532 (100.00)
As on 31.3.2010	148367 (25.55)	1748 (0.30)	- -	430669 (74.15)	580784 (100.00)
As per Revised Schedule VI:					
As on 31.3.2011	155534 (25.75)	1901 (0.31)	3 (0.01)	446430 (73.93)	603868 (100)
As on 31.3.2012	161349 (22.12)	2511 (0.34)	3 (0.01)	565435 (77.53)	729298 (100.00)
As on 31.3.2013	182789 (21.49)	2493 (0.29)	0 (0.0)	665316 (78.22)	850599 (100)

### 2.3.1 Sources of Financial Investment

While the central Government continues to have majority equity holding in CPSEs (73.55%), 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 Government 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 2012-13 (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 19.67 per

cent in 2012-13. The share of financial institutions/banks (and 'other'), on the other hand, that was 39.89 per cent in 2004-05 has gone up to 61.51 per cent in 2012-13. 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 13.18 per cent in 2012-13. The share of 'State governments' in total financial investment has also shown a marginal decline from 0.94 percent in 2004-05 to 0.47 percent in 2012-13, which is given below (Table 2.4).

**Table 2.4**  
**Sources of Investment**

(₹ in crore)

Items	Central Govt.	State Govt.	Holding Company	Foreign Parties	FI/Banks & Others	Share Appl. Money (pending allotment)	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b><i>As on 31.3.2005</i></b>							
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
<b><i>As on 31.3.2006</i></b>							
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)	36.44	0.90	10.70	7.20	43.22	1.54	100.00
<b><i>As on 31.3.2007</i></b>							
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
<b><i>As on 31.3.2008</i></b>							
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
<b><i>As on 31.3.2009</i></b>							
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)
<b><i>As on 31.3.2010</i></b>							
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)
<b><i>As on 31.3.2011</i></b>							
Equity (E)	126668	3822	14847	2152	8048	1901	-
Loan (L)	34257	82	21268	60585	330345	-	
(E+L)	160925	3904	36115	62737	338393	1901	603975
% of total (E+L)	26.64	0.65	5.98	10.39	56.34	0.31	(100.00)
<b><i>As on 31.3.2012</i></b>							
Equity (E)	129235	3793	15402	2047	10875	2511	163863
Loan (L)	37420	78	23273	85906	418758	565435	
(E+L)	166655	3871	38675	87953	429633		729298
% of total (E+L)	22.85	0.53	5.31	12.06	58.91	0.34	(100.00)
<b><i>As on 31.3.2013</i></b>							
Equity (E)	136280	3869	24538	2580	15522	2493	185282
Loan (L)	31056	91	16972	109489	507708	-	
(E+L)	167336	3960	41510	112069	523230	-	850599
% of total (E+L)	19.67	0.47	4.88	13.18	61.51	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) which showed a continuous increase in absolute terms from 2002-03 till 2011-12, marginally declined by ₹ 8664.56 crore in 2012-13 over the previous year (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 decreased from 56.57 per cent of plan outlay in 2011-12 to 51.19 per cent in 2012-13 and the share of Budgetary Support has gone up from 2.06 percent in 2011-12 to 4.23 percent in 2012-13. The share of extra budgetary resources, on the other hand, increased from 41.37 percent in 2011-12 to 44.58 percent in 2012-13 (Table 2.5).

**Table.2.5**  
**Plan Investment in CPSEs (2002-03 to 2012-13)**

(₹ in crore)

Year	Internal Resources	Extra Budgetary Budgetary Resources	Budgetary support	Plan Outlay
2002-03	32858.83	21017.05	5313.91	59189.79
	(55.51)	(35.51)	(8.98)	(100)
2003-04	31103.29	26855.66	5014.46	62973.41
	(49.39)	(42.65)	(7.96)	(100)
2004-05	32222.46	26006.52	5090.24	63319.22
	(50.89)	(41.07)	(8.04)	(100)
2005-06	42143.53	35723.30	4271.70	82138.53
	(51.31)	(43.49)	(5.20)	(100)
2006-07	58981.57	32676.47	5263.76	96921.80
	(60.85)	(33.71)	(5.43)	(100)
2007-08	68140.97	38692.82	2745.80	109579.59
	(62.18)	(35.31)	(2.51)	(100)
2008-09	72815.68	75807.99	1629.64	132253.31
	(55.06)	(43.71)	(1.23)	(100)
2009-10	84980.15	65633.85	4458.75	155072.75
	(54.80)	(42.32)	(2.88)	(100)
2010-11	107199.31	56174.62	4120.65	167494.58
	(64.00)	(33.54)	(2.46)	(100)
2011-12	107940.18	78921.04	3933.25	190794.47
	(56.57)	(41.37)	(2.06)	(100)
2012-13	93239.93	81186.04	7702.90	182129.91
	(51.19)	(44.58)	(4.23)	(100.00)

### 2.4.1 Internal Resources of CPSEs

A perusal of different components of IR, moreover, shows that the share of 'retained profit' has been showing a big increase during this period. It went up from ₹ 27176.50 crore in 2002-03 to ₹ 78369 crore in 2012-13 (Table 2.6). In terms of respective shares of the different components of IR, namely, 'depreciation', 'retained profit' and 'deferred revenue

expenses'/as per pre-Revised Schedule VI and 'depreciation' after Revised Schedule VI, there has been a significant change. Whereas the share of 'depreciation' in IR declined from 48.79 per cent in 2002-03 to 42.34 per cent in 2012-13, the share of 'retained profit' in IR went up from 50.07 per cent in 2002-03 to 53.70 per cent in 2012-13 (Table 2.6).

**Table 2.6**  
**Internal Resources of CPSEs**  
**(2002-03 to 2012-13)**

(₹ in crore)

Years	No. of CPSEs which generated IR	Depreciation	DRE/Generated IR	Deferred Tax impairment	Retained Profit	Total Profit
2002-03	129	26477.41 (48.79)	619.18 (1.14)		27176.50 (50.07)	54273.09 (100.00)
2003-04	151	30526.72 (40.48)	769.15 (1.02)		44116.90 (58.50)	75412.77 (100.00)
2004-05	149	32477.42 (38.73)	537.60 (0.64)		50847.60 (60.63)	83862.62 (100.00)
2005-06	149	34540.93 (40.36)	797.93 (0.93)		50248.20 (58.71)	85587.06 (100.00)
2006-07	154	32013.20 (33.28)	5475.33 (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 (100.00)
2009-10	157	28745.82 (26.52)	9575.56 (8.84)		70061.06 (64.64)	108382.44 (100.00)
2010-11	162	53574.55 (37.27)	*185.69 (0.15)	3716.01 (3.25)	66478.93 (60.33)	120794.96 (100.00)
2011-12	166	59907.73 (46.22)	152.38 (0.12)	1428.77 (1.10)	68128.71 (52.56)	129617.59 (100.00)
2012-13	157	61798.86 (42.34)	403.07 (0.27)	5384.32 (3.69)	78369.33 (53.70)	145955.58 (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' (26.07%), 'mining' (25.07%) and 'service' (19.75%). In terms of growth in investment over the previous year, the

highest growth (other than CPSEs under construction) was registered by 'electricity' sector (14.67%) followed by 'manufacturing' (10.79%) and 'mining' (9.8%). The overall growth in investment in CPSEs, in terms of 'gross block', stood at 10.33 per cent in 2012-13 over the previous year. (Table 2.7)

**Table 2.7**  
**Pattern of investment in terms of Gross Block**  
**(2011-12 and 2012-13)**

*(₹ 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 31.3.13)
		31.3.2013	31.3.2012		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Agriculture	921	869	5.98	0.06
2.	Mining	388125	353499	9.80	25.07
3.	Manufacturing	430840	388893	10.79	27.83
4.	Electricity	403561	351939	14.67	26.07
5.	Services	305704	295007	3.63	19.75
6.	CPSEs yet to Commence Operations	18902	12867	46.90	1.22
	Total	1548053	1403075	10.33	100.00

Note : This is inclusive of capital- work -in- progress (including intangible assets).

### 2.5.1 Top Ten Enterprises in terms of Gross Block

Gross block in top ten enterprises amounted to ₹1068390.25 crore as on 31.3.2013. This was equal to 69.02 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 2012-13 (Table 2.8). The share of these 3 CPSEs alone was 35.70% of the total gross block of all the CPSEs as on 31.3.2013.

**Table 2.8**  
**Gross Block in Top Ten Enterprises, as on 31.3.2013**

*(₹ in crore)*

Sl.No.	CPSEs	Investment in terms of Gross Block*	Share in total Gross Block (%)
(1)	(2)	(3)	(4)
1.	Oil & Natural Gas Corporation Ltd.	236567.76	15.28
2.	Bharat Sanchar Nigam Ltd.	175815.31	11.36
3.	NTPC Ltd.	140355.12	9.07
4.	Indian Oil Corporation Ltd.	123112.60	7.95
5.	Power Grid Corporation of India Ltd.	115423.59	7.46
6.	Steel Authority of India Ltd.	78593.27	5.08
7.	ONGC Videsh Ltd.	67967.39	6.36
8.	NHPC Ltd.	45429.08	4.39
9.	Nuclear Power Corporation of India Ltd.	42947.05	2.77
10.	Hindustan Petroleum Corporation Ltd.	42179.08	2.72
	<b>Total Top Ten (CPSEs)</b>	<b>1068390.25</b>	<b>69.02</b>
	<b>Total Gross Block</b>	<b>1548052.70</b>	<b>100</b>

\* Gross Block inclusive of Capital-work-in progress and intangible assets under development.

## 2.6 State-wise distribution of gross block:

As on 31.3.2013, the enterprises have invested funds in terms of gross block for the productivity in different states. The funds have been invested as per the requirement of the CPSEs and the balance regional development in the country. 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 state 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 (2012-13) the state of Maharashtra (18.35 percent), Andhra Pradesh (7.37 percent), Tamilnadu (7.17 percent), U.P (6.55 percent) hold rank number 1,2,3 and 4 respectively. Orissa (5.28 percent) and West Bengal (5.16 percent) in terms of investment held 5<sup>th</sup>

and 6<sup>th</sup> place during the year 2012-13. These changes, in good measure, have occurred mainly on account of higher investments in oil exploration (e.g. Mumbai High), power projects and telecommunications vis-a-vis investments in steel, heavy engineering and coal mining made in the earlier years. Some differences have also occurred due to bifurcation of states like Bihar into Bihar and Jharkhand, Madhya Pradesh into Madhya Pradesh and Chhattisgarh and Uttar Pradesh into Uttar Pradesh and Uttarakhand 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 distribution of 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 of total Gross Block			
		1977	1987	1997	2013	1977	1987	1997	2013
1.	Andhra Pradesh	390.70	6761.52	19486.16	112825.61	3.41	9.94	6.85	7.37
2.	Arunachal Pradesh	-	-	1489.20	11104.80	0.00	0.00	0.52	0.73
3.	Assam	312.90	3808.72	12448.89	63602.15	2.73	5.60	4.38	4.16
4.	Bihar	2509.10	6969.2	19982.51	43298.69	21.91	10.24	7.03	2.83
5.	Chhattisgarh	-	-	-	60498.93	-	-	-	3.95
6.	Delhi	400.70	1928.48	15014.81	68679.98	3.50	2.83	5.28	4.49
7.	Goa	3.30	35.27	144.57	1618.06	0.03	0.05	0.05	0.10
8.	Gujarat	523.40	3197.79	20092.87	69922.70	4.57	4.70	7.07	5.57
9.	Haryana	142.70	649.69	4352.25	44854.43	1.25	0.95	1.53	2.93
10.	Himachal Pradesh	11.80	527.43	4720.54	34436.74	0.10	0.78	1.66	2.25
11.	Jammu & Kashmir	5.70	117.84	6413.36	21531.30	0.05	0.17	2.26	1.41
12.	Jharkhand	-	-	-	36921.16	-	-	-	2.41
13.	Karnataka	268.20	1721.52	6439.48	51629.75	2.34	2.53	2.26	3.37
14.	Kerala	274.10	1074.44	3991.76	31460.19	2.39	1.58	1.40	2.06
15.	Madhya Pradesh	1492.70	8571.69	21503.52	64929.56	13.04	12.60	7.56	4.24
16.	Maharashtra	630.30	10905.09	54854.07	280948.44	5.50	16.02	19.29	18.35
17.	Manipur	-	139.68	148.31	468.82	0.00	0.21	0.05	0.03
18.	Meghalaya	-	4.27	53.43	333.80	0.00	0.01	0.02	0.02
19.	Mizoram	--	30.03	702.06	-	-	-	0.01	0.05
20.	Nagaland	-	78.17	465.36	1183.68	0.00	0.11	0.16	0.07
21.	Orissa	646.50	4637.65	17101.40	80811.28	5.65	6.81	6.01	5.28
22.	Punjab	197.80	641.02	2077.85	15800.18	1.73	0.94	0.73	1.03
23.	Rajasthan	227.10	780.95	6065.94	31887.35	1.98	1.15	2.13	2.08
24.	Sikkim	-	0.55	241.13	3956.67	0.00	0.00	0.08	0.26
25.	Tamilnadu	466.90	3018.82	13539.28	109738.08	4.08	4.44	4.76	7.17
26.	Tripura	-	160.83	830.54	4860.76	0.00	0.24	0.29	0.32
27.	Uttar Pradesh	376.20	3913.96	20767.92	100320.42	3.29	5.75	7.30	6.55
28.	Uttarakhand	-	-	-	23215.33	-	-	-	1.52
29.	West Bengal	768.30	4524.94	18677.33	78906.86	6.71	6.65	6.57	5.16
30.	Andaman & Nicobar Islands	-	9.89	27.10	2581.75	0.00	0.01	0.01	0.17
31.	Chandigarh	-	4.06	289.30	504.66	0.00	0.01	0.10	0.03
32.	Pondicherry	-	8.53	30.40	333.41	0.00	0.01	0.01	0.02
33.	Others and unallocated	1802.80	3859.87	13082.21	76877.37	15.74	5.67	4.60	5.02
<b>Total :</b>		<b>11451.20</b>	<b>68051.87</b>	<b>284361.52</b>	<b>1530744.97</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

As on 31<sup>st</sup> March of each financial year.

## Chapter-3

### Pricing Policy in CPSEs

Price is one of the most important elements of a commercial enterprise. It determines the company's profitability and is determined by the market share of the company and its positioning market strategy. 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, below cost to stimulate demand under conditions of excess / unutilized capacity, lower price for giving incentive to encourage consumption (e.g. fertilizer consumption) and higher price as disincentive to discourage consumption (e.g. petroleum products),
- (d) 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, the National Pharmaceutical Pricing Authority (NPPA), Department of Pharmaceuticals 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.

### 3.1 Market Structures and Pricing Strategy of CPSEs

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.

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 below provides an illustration of CPSEs operating under different market structures:

**Table 3.1**  
**Market Structure, CPSEs, and Pricing Policy**

S.No.	Market structure	CPSEs	Pricing Policy Strategy
(1)	(2)	(3)	(4)
1.	Monopsony (Govt. of India as the sole buyer)	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)	A.P.M/Notified Price
3.	Monopolistic Competition	BEML, WAPCOS Ltd., EIL, MECON, HSCL, NBCC, Tyre Corporation of India Ltd.	Competitively Negotiated Price
4.	4.1 Oligopoly (in the domestic market)	Air India, BSNL, MTNL, HLL Life Care, ITDC.	Competition Based Price
	4.2 Monopolistic Competition	National Textile Corporation, HMT, Hindustan Salts Ltd., CCI, MIDHANI	Competition Based Price
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	Competition Based Price
6.	Perfect Competition (in international market)	Coal India Ltd. ( for buyers other than core sectors), Indian Oil (for imported crude oil), SAIL, NMDC, NALCO, Hindustan Copper Ltd.	Based on Demand and 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.

## 3.2 Coal

Central Government used to fix the price of coal under the provision of Colliery Control Order 1945. The price of coal produced and sold by Coal India Limited and its subsidiary companies was under control of the Government till

21.03.1996. Price was decided based on normative cost as per the formula developed by the Bureau of Industrial Cost & Prices (BICP) and notified by the Ministry of Coal.

### 3.2.1 Decontrol of price

The process of de-control of price of coal was started w.e.f 22.3.1996 and continued in phases under the provisions of the Colliery Control Order 1945. The prices of all grades of cooking coal, semi cooking coal and non cooking coal of grades 'A', 'B' & 'C' were de controlled w.e.f. 22.03.1996.

The prices of non cooking coal of grades 'E', 'F', & 'G' were partially decontrolled (not to be more than BICP norms) w.e.f. 12.3.1997. The process of price decontrol of coal was finally completed on 01.01.2000 with Govt. Notification of new Colliery Control Order 2000.

### 3.2.2 Basis of pricing after decontrol of price

After complete decontrol of coal price w.e.f. 01.01.2000, Coal India Ltd. started fixing the prices of raw cooking and non cooking coal produced by CIL, and its subsidiary companies.

The prices of coal were fixed from time to time to time based on the following:

- Increase in input cost for production of coal
- The upward movement of AICPI and WPI
- Capacity of the market to absorb the coal price
- Demand and supply scenario
- Landed cost of imported coal
- Requirement of fund for investment in upcoming projects and modernization of existing mines for augmentation of production
- Financial viability of new coal projects

Besides market structures, a combination of factors comes into play in the determination of prices in the CPSEs. Exponential growth in markets such as the telecom sector 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.

### 3.2.3 Cost Plus Agreement

After introduction of New Coal Distribution Policy (NCDP) during October, 2007, the Ministry of Coal issued guidelines for supply of Coal on Cost Plus Basis. Accordingly, coal is supplied at a price that covers cost of production and a reasonable return on investment, and from such sources which would have been otherwise non-viable at CIL notified price. The price is fixed at 85% capacity utilization at a return not less than 12% IRR. Price of washed coking coal is decided through negotiation with the buyer on import parity basis.

Price of non-coking coal is decided through negotiation with the buyer on import parity basis. Price of non coking washed coal is decided based on value addition through washing, which is notified by the subsidiary companies concerned. Further, Around 10% of the CIL coal is sold through e-auction to cater to the needs of such consumers who do not have any access to the institutional mechanism of buying coal from CIL source.

### 3.2.4 Differentiated Pricing Policy

In the price revision effective from 27.02.2011, the CIL for the first time adopted the concept of dual pricing i.e. one price for consumers for Power utilities (including IPPs), Fertilizer companies and for Defence (Regulated) sector and another for consumers other than these sectors. The price of coal for the non regulated sector ( except for higher grade ) are kept higher than that for the regulated sector. Since the prices of end products of coal consuming industries in the non regulated sector are market driven, CIL fixes the price of coal used in non regulated sector at a level that is closer to the market price.

The price for higher grade of non-cooking coal are fixed on import parity basis after providing for appropriate discount as per the Integrated Energy Policy (IEP) of Government of India, which provides for sale of high quality non-cooking coal at 15% discount on the import parity.

### 3.2.5 Pricing of coal after Migration from UHV to GCV based system of grading and pricing of coal.

The Govt. of India vide its Gazette notification dated 30.12.2011 notified for switch over from UHV (Useful Heat Value) to GCV (Gross Calorific Value) based system of grading and pricing of non-coking coal w.e.f. 01.01.2012. Under UHV there were seven grades (from A to G) of non-coking coal which under the GCV regime were classified into seventeen grades (from G1 to G17). The GCV band width for the purpose of pricing was considered to be 300 Kcal/kg meaning that the price will remain same within a particular bandwidth. The prices of non-coking coal has been kept uniform for all the subsidiary coal companies including NEC but except WCL whereas the prices applicable for raw coking coal are different for different subsidiary coal companies.

One review of GCV based pricing applicable w.e.f. 01.01.2012 of coal after 3 months, it was seen that though CIL succeeded to a great extent in its endeavor for overall revenue neutrality for CIL as a whole, WCL was incurring loss beyond the acceptable level. As such the price for WCL was revised on 20.06.2012 to make the WCL revenue neutral. In such price revision for WCL the price was increased by around 20% over and above the price applicable for other subsidiaries for GCV bands not exceeding 5800 Kcal/kg and below.

### 3.2.6 Pricing of non-coking coal produced by all the subsidiary coal companies of CIL including NEC and the NLW coal of BCCI coal w.e.f. 28.05.2013.

After switching over to GCV regime of grading and pricing of coal vide price notification dated 31.01.2012 applicable retrospectively w.e.f. 01.01.2012, the prices of non-coking coal produced by all the subsidiary coal companies of CIL including NEC and the NLW coal of BCCL was revised on 27.05.2013 to be applicable w.e.f. 28.05.2013. The details are as under:

- i. The prices of the higher grades of non-coking coal i.e. GCV band G1, G2 and G5 were kept same for all the Subsidiary Companies including NEC as it was applicable under the price notification dated 31.01.2012. But the prices of the higher grades of non-coking coal i.e. GCV band G3 and G4 were reduced by 12% in respect of all the Subsidiary Companies including NEC in view of the decreasing trend of the equivalent grade of imported coal prices.
- ii. The prices of the non-coking coal i.e. GCV band G6 to G17 were increased by 10% keeping in view the increasing cost of factors of production.
- iii. The prices applicable for consumers in the non-regulated sector for G6 to G17 for non-coking coal were increased by 35% over and above the price applicable for regulated sector as in vogue.
- iv. A 10% add-on for WCL was kept over and above the prices applicable for other Subsidiary companies for both regulated and non-regulated sector for GCV Grades G6 to G17.
- v. During migration from UHV to GCV based grading and pricing system for non-coking coal w.e.f. 01.01.2012, the price of Rajmahal coal was slotted at a lower price range to about 26% less than the then prevailing price on UHV based system. Such downward pricing had an adverse impact on the operational bottom-line of the project. As such an additional price of ₹ 300.00 extra per tonne over and above the notified price had been kept in respect of the coal produced from Rajmahal mine of Eastern coalfields Limited.
- vi. 10% increase in the price of NLW coal of BCCL applicable for consumers in the regulated sector. For non-regulated sector the price was increased by 30% over the price applicable for regulated sector as in vogue. The rebate of 5% for supply to Power house other than captive ones as applicable at present is continued.

### 3.2.7 Pricing of non-coking coal produced by WCL w.e.f. 17.12.2013

Recently, w.e.f. 17.12.2013 the price of non-coking coal produced by WCL has also been revised and further increased

by around 10% considering its higher stripping ratio and the cost of production.

## 3.3 Petroleum and Gas

3.3.1 The pricing of petroleum products was brought under Administered Price Mechanism (APM) effective July 1975 when the pricing of petroleum products was shifted from import parity principles to cost plus principles. As APM was found to be increasingly unsuitable for the long term growth and efficiency of oil industry, APM was dismantled w.e.f. 1<sup>st</sup> April 2002 and prices of all Petroleum Products except, PDS

Kerosene and Domestic LPG were made market determined. However, in view of the high increase in oil prices in international market since 2004 onwards, the Government started controlling the retail selling prices of these sensitive petroleum products resulting in under-recovery to the Public Sector Oil Marketing Companies (OMCs).

### 3.3.1 Trend of International Oil Prices:

International prices of crude oil and petroleum products have remained highly volatile in the recent past. Indian basket of crude oil, which averaged about \$ 23/bbl at the time of dismantling of APM in March 2002 and \$36/bbl in May 2004,

averaged at \$111.89/bbl. and \$107.97/bbl. per barrel during 2011-12 & 2012-13 respectively. The average price of Indian crude basket is at 104.91/ bbl. in current financial year (up to 6<sup>th</sup> November 2013).

The trend in the international prices of crude oil and major petroleum products since 2008-09 is given in Table 3.2.

**Table 3.2**  
**Trend in the international prices of crude oil and major petroleum products**

Period	Indian Basket Crude Oil (\$/bbl.)*	Petrol \$/bbl.	Diesel \$/bbl.	Kerosene \$/bbl.	LPG \$/MT
2008-09	83.57	89.42	101.75	104.37	688.00
2009-10	69.76	76.23	74.67	75.35	582.69
2010-11	85.09	92.43	95.66	96.79	745.29
2011-12	111.89	121.60	125.38	125.99	899.42
2012-13	107.97	118.98	121.97	123.11	885.20
2013-14 (up to 6 <sup>th</sup> November '13)	104.91	113.60	118.51	117.74	809.97

\*Composition of Indian Basket of Crude represents average of Oman & Dubai for sour grades and Brent (Dated) for sweet grade in the ratio of 69.9:30.1 for 2013-14.

### 3.3.2 PDS Kerosene and Domestic LPG:

Subsidy on PDS Kerosene and Domestic LPG, fixed effective 1<sup>st</sup> April, 2002 under PDS Kerosene and Domestic LPG Subsidy Scheme, 2002, is met from the fiscal budget. It has been fixed on a specified flat rate basis for each Depot/ Bottling Plant based on the difference between the cost price and the issue price per selling in March 2002. The average subsidy during 2002-03 on PDS Kerosene was ₹2.45 per litre & on domestic LPG at ₹67.75 per cylinder. The flat rate subsidy was reduced by 1/3rd each year during 2003-04 and 2004-05. Since then the approved subsidy rate for Domestic LPG and PDS Kerosene has been maintained at the 2004-05 level (i.e. 1/3rd of 2002-03 level), i.e. 82 paise per litre for PDS kerosene and ₹22.58/cylinder for domestic LPG. Since 2002-03, in addition to the subsidy provided by the Government under the 2002 Scheme, OMCs are also incurring under recoveries on these products as prices could not be revised

taking into account the increase in the international market. At present the OMCs are incurring under recoveries of ₹35.77 per litre of Kerosene and ₹482.41 cylinder of Subsidized Domestic LPG.

On 13<sup>th</sup> September 2012, the Government has taken decision to restrict the supply of subsidized LPG cylinders to each consumer to 6 cylinders (of 14.2 Kg) per annum. Based on the decisions taken in the meeting of Cabinet Committee on Political Affairs, (CCPA), effective 18th January 2013, it has been decided to increase the cap on subsidized domestic LPG cylinders from 6 to 9 cylinders annually.

The year-wise subsidy i.e. flat subsidy plus under-recovery which was available to the customers of PDS kerosene and domestic LPG are at Tables 3.3 and 3.4.

**Table 3.3**  
**Per Unit & Total Subsidy Provided to Consumer on PDS Kerosene**

Year	Per Unit Subsidy ( ₹/Litre)			Total subsidy amount ( ₹ Crore)		
	From Govt. Budget	By Oil Cos.	Total subsidy to consumers	From Govt. Budget	By Oil Cos.	Total subsidy to consumers
2006-07	0.82	15.17	15.99	970	17883	18853
2007-08	0.82	16.23	17.05	978	19102	20080
2008-09	0.82	24.06	24.88	974	28225	29199
2009-10	0.82	14.85	15.67	956	17364	18320
2010-11	0.82	17.39	18.21	931	19484	20415
2011-12	0.82	26.46	27.28	863	27352	28215
2012-13	0.82	31.16	31.98	741	29410	30151
Apr-June 2013*	0.82	28.83	29.65	223	6507	6730

\*provisional

**Table 3.4**  
**Per Unit & Total Subsidy Provided to Consumer on Domestic LPG**

Year	Per Unit Subsidy ( ₹/Cyl.)			Total subsidy amount ( ₹ Crore)		
	From Govt. Budget	By Oil Cos.	Total subsidy to consumers	From Govt. Budget	By Oil Cos.	Total subsidy to consumers
2006-07	22.58	156.08	178.66	1554	10701	12255
2007-08	22.58	214.05	236.63	1663	15523	17186
2008-09	22.58	234.88	257.46	1714	17600	19314
2009-10	22.58	178.13	200.71	1814	14257	16071
2010-11	22.58	249.94	272.52	1974	21772	23746
2011-12	22.58	320.30	342.88	2137	29997	32134
2012-13	22.58	427.14	449.72	1989	39558	41547
Apr-June 2013*	22.58	378.73	401.31	620	8518	9138

\*provisional

### 3.3.3 Freight Subsidy (for far flung areas)

Freight subsidy for supplies and sales of products in the notified far flung areas is provided for PDS Kerosene and Domestic LPG. The subsidy for the year 2004-05 to 2009-10 was paid at 1/3rd level of the rates for 2002-03.

The Government has extended the subsidy scheme till 31st March 2014 at 1/3rd level of the rates for 2002-03. The actual payments released under notified scheme since 2007-08 are at Table 3.5.

**Table 3.5**  
**Actual payments released**

Year	₹ Crore
2007-08	28.27
2008-09	22.22
2009-10	21.95
2010-11	22.33
2011-12	23.00
2012-13	23.00
Apr-June'2013 (prov.)	5.00

### 3.3.4 Petrol and Diesel

The Government has made the price of Petrol market determined effective 26.6.2010. Since then, the OMCs take decision on price of petrol in line with changes in international market condition and domestic conditions. The OMCs have not only increased but also decreased the price of Petrol in line with changes in international prices and rupee dollar exchange rate.

Pursuant to decision taken by the Cabinet Committee on Political Affairs (CCPA) in its meeting held on 17<sup>th</sup> January 2013, the Government has authorized the OMCs to (a) increase the retail selling price of Diesel in the range of 40 paise to 50 paise per litre per month (excluding VAT as applicable in different State/Union Territories) until further orders; and (b) sell Diesel to all consumers taking bulk supplies directly from

the installations of the OMCs at the non-subsidized market determined price with immediate effect. Accordingly, OMCs have carried out regular revision in prices of diesel since January 2013. OMCs have also implemented the decision to sell Diesel to bulk consumers at non-subsidized market determined price effective 18<sup>th</sup> January, .2013.

### 3.3.5 Under-recoveries of OMCs:

In order to insulate the common man from the impact of rise in international oil prices and the domestic inflationary conditions, the Government continues to modulate the prices of Diesel (sold through retail outlets), PDS Kerosene and Subsidized Domestic LPG. As a result, the OMCs have incurred under-recovery on sale of these products. The actual under-recovery incurred by oil marketing companies from 2008-09 to April-Sep'13 are at Table 3.6.

**Table 3.6**  
**Actual under-recovery incurred by oil marketing companies**

						(₹ in crore)
Under-recovery *	2008-09	2009-10	2010-11	2011-12	2012-13	April-Sep'13
Petrol	5181	5151	2227#	Nil	Nil	Nil
Diesel	52286	9279	34706	81192	92061	28265
PDS Kerosene	28225	17364	19484	27352	29410	14057
Domestic LPG	17600	14257	21772	29997	39558	18585
<b>Total</b>	<b>103292</b>	<b>46051</b>	<b>78190</b>	<b>138541</b>	<b>161029</b>	<b>60907</b>

\*Gross under-recoveries before sharing by upstream oil companies/ oil bonds/ cash assistance.

# Under-recovery on Petrol is up to 25<sup>th</sup> June, 2010.

### 3.3.6 Burden Sharing

The Government has been following a Burden Sharing Mechanism to ensure that the burden of under-recoveries is shared by all the stakeholders; namely the Government, the Public Sector Oil Companies and the consumers in the following manner:

- Government through issue of Oil Bonds/ Cash Subsidy
- Domestic upstream oil companies through price discounts to OMCs
- OMCs to bear a portion of the under recoveries and
- Consumers to bear minimal price increases.

The details of burden sharing by various stakeholders since 2008-09 are at Table 3.7

**Table 3.7**  
**Burden sharing by stakeholders**

( ₹ Crore )

Year	Total U/R	Government		Upstream Oil companies		OMCs	
		Oil Bonds/ Cash Assistance	%	Amount	%	Amount	%
2008-09	103292	71292	69%	32000	31%	Nil	Nil
2009-10	46051	26000	57%	14430	31%	5621	12%
2010-11	78190	41000	52%	30297	39%	6893	9%
2011-12	138541	83500	60%	55000	39.7%	41	0.3%
2012-13	161029	100000	62%	60000	37%	1029	1%
H1, 2013-14	60907	25772	42%	32034	53%	3101*	5%

\* unmet under-recovery so far

### 3.4 Electric Power

The Electricity Regulatory Commission Act was enacted in 1998 for creation of Regulatory Commission at the Centre and in the States with the authority, 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 for ensuring grid discipline.

The tariffs for the electricity supplied by CPSEs for the period of 2009-14 are determined by the CERC as per the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2009. Regulation 14 of

the Tariff Regulations 2009 describes the components of the annual fixed cost of a generating station for the purpose of determination of tariff which are:

- Return on Equity
- Interest on loan capital
- Depreciation
- Interest on working capital
- Operation & Maintenance expenses
- Cost of Secondary Fuel (For Coal based and Lignite fired generating station only)
- Special allowances in lieu of R&M or separate compensation allowances, wherever applicable.

- The base rate for allowing return on equity has been raised from 14% to 15.5% on pre-tax basis (as this will attract more investors in the power sector).
- For timely completion of projects, an additional return on equity of 0.5% is allowed as an incentive.
- New hydro power projects have been insulated from hydrological risks during the first 10 years of their operations, giving a relaxation to design energy, if a hydro power station cannot achieve the design energy due to reason beyond the control of the generator.
- Return on equity @ 16.5% has been allowed for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage on pre-tax basis vide notification dated 31.12.2012.
- Return on equity has been grossed up by the applicable tax rate.
- As against a depreciation rate of 3.6% for the thermal power project and 2.75% for hydro power projects, the CERC has increased the depreciation rate to 5.28% for most components of the projects.
- Capacity index based fixed charge recovery has been replaced by availability based fixed charge recovery.

The dispensation available to CPSUs/PSUs regarding exemption from Tariff based Bidding need to be continued beyond Jan 2011, since it is not feasible for hydel projects to predict the actual cost of the project because of geological uncertainties, cost of Rehabilitation and Resettlement and other unforeseen factors leading to time and cost overruns. The Ministry of Power, Govt of India therefore extended the exemption from tariff based bidding up to 31.12.15 vide Notification dated 9.8.2011.”

### 3.5 Steel

The steel industry in India 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) Price and distribution (with the exception of a few strategic areas) 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 was replaced by freight equalization,
- (d) FDI in Iron & Steel was allowed through the automatic route,
- (e) Technology imports were made easier, and
- (f) Capacity controls and reservation on the BF- BOF sectors were withdrawn.

As steel pricing was deregulated, 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

For sustained agriculture growth and to promote balanced nutrient application, it is imperative that fertilizers are made available to farmers at affordable prices. 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 fertilizers 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 prices and distribution control in August 1992. The Government of India, however, indicated the Maximum Retail Price (MRP) in respect of major Phosphatic and Potassic (P&K) fertilizers namely, Di-ammonium Phosphate (DAP), Murate of Potash (MoP) and 11 grades of complex fertilizers under the erstwhile Concession Scheme for decontrolled P&K fertilizers upto 31.3.2010. MRP of Single Super Phosphate (SSP) which was earlier fixed by the respective State Government upto 30.4.2008 was fixed by the Government w.e.f. 1.5.2008 to 30.9.2009. W.e.f. 1.10.2009 to 30.4.2010, the MRP of SSP was made open to be fixed by SSP companies wherein a fixed amount of subsidy was provided on SSP under

the erstwhile concession scheme. The indicative MRPs of decontrolled P&K fertilizers under the erstwhile Concession Scheme were less than the delivered cost of these fertilizers. The difference between delivered cost of production of P&K fertilizers and indicative MRP were paid as subsidy/concession to the manufacturers.

In the context of the nation's food security, considering the declining response of the agriculture productivity to increased fertilizer usage in the country and with a view to ensure the balanced application of fertilizers, the Government of India introduced Nutrient Based Subsidy (NBS) policy w.e.f. 1.4.2010 for decontrolled Phosphatic & Potassic (P&K) fertilizers.

Under the NBS Policy, a fixed amount of subsidy, decided on annual basis is provided on each grade of P&K fertilizers depending upon its nutrients (N, P, K, S) content. MRP of P&K fertilizers are fixed by the fertilizer manufactures/importers. At present 22 grades of P&K fertilizers namely DAP, Mono Ammonium Phosphate (MAP), Triple Super Phosphate (TSP), MOP, Ammonium Sulphate, SSP and 16 grades of NPKS complex fertilizers are covered under the NBS Policy.

**Table-3.8**  
**Subsidy on Fertilizers**

2009-10 to 2013-14 (BE)

(₹ in Crore)

Year	Subsidy released		Total subsidy disbursement
	Urea	P&K fertilizers	
2009-10	24580.23	39452.06	64032.29
2010-11	24336.68	41500.00	65836.68
2011-12	37683.00	36107.94	73790.94
2012-13	40016.01	30576.12	70592.13
2013-14 (BE)	41158.85	29426.88	70585.73

### 3.6.1 Pricing of Urea:-

#### 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 has been extended beyond March, 2010 till further orders.

The cost of production of urea by units includes Fixed Cost (FC) which includes capital related cost, depreciation, interest, employee cost, administrative overhead etc. and Variable Cost includes energy cost (natural gas, naphtha, FO/LSHS etc), water, purchased power, bags etc.

#### Applicable till 100% of Re-assessed Capacity

The urea is sold at a Maximum Retail Price (MRP) statutorily fixed by the Government. At present MRP of urea is ₹5360 per MT (exclusive of the central excise duty, central sales tax, countervailing duty, the sales tax and other local taxes wherever levied) with effect from 01st November, 2012.

The difference between the delivered cost of fertilizers at farm gate and MRP payable by the farmer is given as subsidy

and disbursed to the fertilizer manufacturers/importers by the Government of India.

#### Applicable from 100% to 110% of Re-assessed Capacity

For production between 100% to 110% the unit gets variable cost and 35% of net gain (net gain = Import Parity Price of Urea - Variable Cost) or own concession rates whichever is lower is given to units. This is done on quarterly basis.

#### Applicable for above 110% of Re-assessed Capacity

For production above 110% to level of Re-assessed Capacity, unit gets their concession rate subject to the overall cap of IPP of Urea. This is done on quarterly basis.

#### Applicable for Production beyond 105% of Cut off level or 110% of Reassessed capacity (whichever is higher).

Cut off level of production was fixed under the New Investment Policy of 2008 and units get IPP linked Concession Rate which is equal to 85% of IPP with floor and ceiling of \$250 and \$ 425. This is done on monthly basis.

Detail of company-wise subsidy paid on urea to CPSEs is at Table 3.9.

**Table 3.9**  
**Company-wise Subsidy on urea Paid to CPSEs**  
**(2006-07 to 2012-13)**

SLNo	CPSEs	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
1	RCF – Thal	1193	1618.37	2217.27	1227.65	705.35	708.51	954.8
2	RCF – rombay	0	0	0	66.02	313.94	232.53	219.05
3	MFL - Chennai	1008.89	899.39	1045.66	1147.82	1290.71	1768.74	1427.26
4	NFL - Bhatinda	439.34	839.61	892.91	983.62	923.88	1107.87	1201.5
5	NFL – Panipat	424.83	879.58	873	846.27	801.39	1213.97	11'93.59
6	NFL – ijaipur-I	121.23	151.11	384.97	255.68	289.41	408.54	413.43
7	NFL - Vijaipur-II	391.18	306.46	508.52	324.18	443.14	502.98	583.53
8	NFL – Nangal	473.13	836.72	839.58	930.77	748.96	1270.69	1123.71
9	BVFCL-Namrup-III	76.28	72.57	42.83	26.37	56.1	59.22	104.63
10	BVFCL - Namrup-II	20.71	32.95	33.38	21.81	114.13	119.06	65.71

(₹ in crore)

**3.6.2** Since 2011-12 prices of P&K fertilizers are fixed under NBS policy. Under this, a fixed subsidy is announced on per kg basis of nutrient on annual basis. An additional subsidy is also given to micro nutrients. With the objective of providing a variety of subsidized fertilizers to farmers depending upon soil and crop requirements, the Government has included seven new grades of complex fertilizers under the NBS. Under this scheme, the manufacturers are allowed to fix MRP. The farmers are paying only 50% of delivered cost of P&K fertilizers and the rest of the cost is borne by the Government of India in the form of subsidy.

### **3.7 Telecommunications**

**3.7.1** The Regulatory authority TRAI regulates telecom services including fixation/revision of tariffs for telecom services. The recommendations and orders issued by TRAI are binding on all Telecom Operators including BSNL/MTNL. Various directions orders and regulations are issued by TRAI on pricing of products and services which are available on TRAI website.

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

**3.7.3.** Intense competition has compelled all telecom operators to offer local and STD calls/SMS/ Data rates at rock bottom prices. Further, the implementation of Mobile Number Portability (MNP) encouraged the telecom service providers to introduce innovative tariff offers to attract subscribers from other telecom service providers, and also to come up with lower tariff rates and other attractive packages. Reduction in Data tariffs & ISD call rates is going on currently.

**3.7.4.** The pricing policy of BSNL/MTNL are competition based pricing. Prices of products and services are determined as per market trends. Differential pricing strategy is also followed which offers discounts for volume purchases and bundling offers.

## **3.8 Civil Aviation**

### **3.8.1 Airport Services**

The Airport Economic Regulatory Authority of India (AERA) has been established for regulating the various Airport and Navigational Tariff of all major airports i.e. airports having passenger movement of more than 1.5 million passenger per annum. The Procedure and consultation papers issued by AERA are available in the AERA website [www.aera.gov.in](http://www.aera.gov.in). AAI has categorized 11 airports as major airports. The Multi Year Tariff Proposal (MYTP) and Annual Tariff Proposal (ATP) have been submitted / are under submission for these airports to AERA. For airports other than non-major airports, Ministry of Civil aviation is functioning as the Regulator and AAI is in the process of submitting the proposal (s) for such airports.

### **3.8.2 Fares for Airflights**

The 'fares' offered by Air India are 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.

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 air fares and tariff are deregulated. DGCA has vide various CAR (Civil Aviation Regulation) advised the airlines on the transparency in display of air fares & publishing of tariff (Rule 135 of Aircraft Rules, 1937).

Pawan Hans Helicopter Ltd. has adopted the following broad principles of price determination:

- Competition based pricing- For a majority of contracts for helicopter services, Pawan Hans Helicopters Ltd. has to engage in competitive domestic and global bidding. Most business in offshore Oil and Gas E&P sector and State/Central Govt. leases are secured in such a manner. In such cases prices are driven by competitive dynamics in order to secure long term contracts under tender bidding.

- **Cost Plus pricing-** For a small proportion of works, Pawan Hans Helicopters Ltd. based on customer request and (or) agreement provides this kind of pricing subject to discussion and negotiation on final prices. Such method is followed for Contracts awarded on nomination basis. if any.

### 3.9 Pharmaceuticals

As per the Pharmaceuticals Purchase Policy (PPP), which has been approved by Union Cabinet on 30.10.2013 for 103 products for a period of five years from the date of issue of the order by Department of Pharmaceuticals (DoP), pricing of the drugs will be done by National Pharmaceutical Pricing Authority (NPPA) using the cost based formula as mentioned in the Drugs Price Control Order (DPCO) 1995 with a uniform discount of 16% extended to all the products. All the taxes whatsoever shall be passed on to buyers. The prices so approved by NPPA / DoP shall be subject to annual revision, linked to whole sale price index as per provisions contained in DPCO 2013.

### 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, which are as given below:-

**Table 3.10**  
**Central Issue Price of foodgrains**  
(₹ Per quintal)

Effective from	Foodgrains wise	Scheme-wise		
		BPL	APL	AAY
1.7.2002 to till date	Wheat	415	610	200
1.7.2002 to till date	Rice	565	830	300

Under the National Food Security Act, 2013 the foodgrains are to be supplied at the following rates: Rice- ₹ 3/-Kg. Wheat ₹ 2/- Kg and Coarse grain- ₹ 1/- Kg.

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

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

- (a) The relevant Minimum Support Price (MSP) fixed for the crop/season,
- (b) The commercial produce price in the local mandis/ market yards, especially in the ultimate end-use/ seed sale areas,

- (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
- (d) price fixed by the competitors in a particular market.

Price trend during the last four years (2009-10 to 2012-13) of the major products / services of the CPSEs is given in Table 3.11.

**Table 3.11**  
**Sale price of seeds in last 4 years**

*₹/Per Qtls*

Seed Crop	2009-10	2010-11	2011-12	2012-13
Paddy	1980	2200	2230	2475
Moong	4500	9330	8650	8430
Urd	4400	7500	6300	6380
Soyabean	1980	3500	3450	4650
Groundnut	....	4200	5000	5900
Guar	...	2800	3800	17000
Mustard	4700	4100	4300	5770
Toria	4700	4225	4400	5900
Gram	4000	3650	4400	6600
Lentil	6600	5800	5000	7000
Field Pea	3800	3160	4100	4500
Wheat	2140	2250	2200	2350
Barley	1950	2100	2200	1870

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## Chapter 4

# Productivity In Public Enterprises

The Central Public Sector Enterprises (CPSEs) are technologically complex identities involving large scale production. 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 factor. While endogenous factors comprise of higher technology, quality of labour, scale of output and good management practices, the exogenous factors comprise of interest rates, tax policies, infrastructure facilities, weather conditions, law and order condition 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 good and services. A comparison with the peer group or a historical comparison brings out the trend in productivity i.e. the improvement/deterioration in condition during the period

under consideration. Some of the important indicators used for assessing 'productivity' are capacity utilization, inventory in relation to sales and energy use in the enterprise. The paragraphs below discuss each of these in relation to CPSEs.

### 4.1 Capacity Utilization

Capacity utilization in these reports have 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, capacity utilization has 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 CPSEs 40 out of 60 units recorded capacity utilization of 75% and more in 2012-13 as compared to 42 out of 65 units in 2011-12.

**Table 4.1**  
**Capacity utilization in CPSEs**

Decription	2012-13	2011-12	2010-11
Units which have recorded 75% or more capacity utilization	40(60)	42(65)	48(72)
Units which have recorded 50% or more but less than 75%	9(14)	9(14)	9(13)
Units which have recorded less than 50% capacity utilization	17(26)	13(21)	10(15)
Total	66(100)	64(100)	67(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 & STEEL

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

**Table 4.1.1**

Sl. No	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilization (%)		
				2012-13		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Mishra Dhatu Nigam Ltd.	Special Alloys	2729 (MT)	139	127	110
2	Steel Authority of India Limited	Saleable Steel	11.24 ml.t	110	110	116

3	Ferro Scrap Nigam Ltd.	Handling, Recovery & Processing of Scrap	11.74 lakh MT	93.61	97.81	113.63
4	Rashtriya Ispat Nigam Ltd	MMSM	0.85 ml.t	103	111	123
		Bars	0.71 ml.t	122	123	122
		Wire rods	0.85 ml.t	114	119	119
		Saleable steel	2.66 ml.t	109	113	116

(MT – Metric Tonne; ml.t – Million Tonne)

Mishra Dhatu Nigam Ltd. produced 3806 MT of alloys during 2012-13 (excluding 881 MTs ingot production from Melt) as against 3482 MT produced in the previous year.

Ferro Scrap Nigam Limited processed 10.99 lakh MT of scrap during the year 2012-13 as compared to 11.18 lakh MT during the previous year.

Steel Authority of India Limited produced 12.38 million tonne of saleable steel during the year 2012-13 as compared to 12.40 million tonne during the previous year.

The Rashtriya Ispat Nigam Ltd. produced 0.88 million tonne of MMSM Products, 0.87 million tonne of bars, 0.97 million tonne of wire rods and 2.90 million tonne of saleable steel during 2012-13 as against a production of 0.94 million tonne of MMSM Products, 0.87 million tonne of bars, 1.02 million tonne of wire rods and 3.0 million tonne of saleable steel during the previous year. The company has informed that negative variance in production during the year 2012-13 is mainly due to powers restrictions and ‘restrictive & control measures’ introduced by the State Government of Andhra Pradesh during the year.

#### 4.1.2 MINERALS AND METALS

The information in respect of four CPSEs for the years 2010-11, 2011-12 and 2012-13 is presented in the Table below: -

**Table 4.1.2**

SI.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	FCI Aravali Gypsum & Minerals (India) Ltd.	Gypsum	958333 MT	99.29	99.24	97.62
2	Indian Rare Earths Ltd.	Ilmenite	5,10,000 MT	47	52	64
		Rutile	22300 MT	44	55	59
		Zircon	32500 MT	34	45	52
3	KIOCL Limited	Pellets	3.5 Million Tonne	36	49	61
4	National Aluminium Company Ltd.	Bauxite	63 lakh MT	86.02	90.14	100.50
		Alumina Hydrate	21 lakh MT	85.81	91.81	98.79
		Aluminium Metal	4.60 lakh MT	87.69	89.80	96.43

(MT – Metric Tonne, TPA – Tonnes per annum)

FCI Aravali Gypsum and Minerals India Limited excavated 958333 MT of Gypsum during the year 2012-13 as compared to 904757 MT in the previous year.

The Indian Rare Earths Ltd. produced 241139 MT limonite, 9775 MT rutile and 10915 MT zircon during the year 2012-13. The corresponding figures for the previous year were 266060, 12203 and 14582 MT respectively.

KIOCL Limited produced 1.265 million tonne of iron oxide pellets during 2012-13 as compared to 1.710 million

tonne of iron oxide pellets in 2011-12. The shortfall is on account of unprecedented decline in demand and price for Pellets coupled with non-availability of adequate quantity of Iron Ore fines after blanket ban on mining in the State of Karnataka imposed by Hon'ble Supreme Court.

National Aluminium Company Limited produced 54.19 lakh MT of Bauxite, 18.02 lakh MT of Alumina and 4.03 lakh MT of Aluminium during the year 2012-13. The corresponding figures for the previous year were 50.02 lakh, 16.87 lakh and 4.13 lakh MT respectively.

### 4.1.3 COAL AND LIGNITE

The information on capacity utilization for the last 3 years in respect of seven CPSEs is presented in the Table below:-

**Table 4.1.3**

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Central Coalfields Ltd.	OC Coal	108.8 M. Cum.	89.60	95	96
		UG Coal	1.776 MT	58	56	57
2	Eastern Coalfields Ltd.	Raw Coal	33.47 MT	101.29	111.61	96.34
3	Neyveli Lignite Corp'n. Ltd.	Lignite	306 LT	85.69	80.36	75.63
4	South Eastern Coalfields Ltd.	Coal	114.16 MT	104	98	103
5	Western Coalfields Ltd.	Coal	42.396 MT	99.74	107.02	96.33
6	Coal India Limited	Coal	475.564 MT	95.09	93.85	89.86
7	Northern Coalfields Ltd.	Coal	67.86 MT	67.71	67.29	73.89

Central Coalfields Limited produced 47.04 MT of OC Coal and 1.02 MT of UG Coal during the year 2012-13 as compared to 46.91 MT and 1.09 MT during the previous year. Reduction in Capacity utilization of OC mines during 2012-13 in comparison to 2011-12 is due to land problems, various bundhs due to MCC, political parties, strike by trade unions & local villagers, heavy rains during monsoon and failure of contractors in some of the outsourcing patches etc.

Eastern Coalfields Limited produced 33.901 MT of Raw Coal during the year 2012-13 as compared to 30.59 MT in the previous year.

The Neyveli Lignite Corporation Ltd. produced 262.23 LT of lignite during 2012-13 as compared to 245.90 LT during

the previous year.

South Eastern Coalfields Limited produced 118.218 MT of Coal during the year 2012-13 as compared 113.837 MT during the previous year.

Western Coalfields Limited produced 42.287 MT of Coal during the year 2012-13 as compared to 43.110 MT during the previous year.

Coal India Limited produced 452.21 MT of Coal in 2012-13 as compared to 435.84 MT in 2011-12.

Northern Coalfields Limited produced 70.02 MT of Coal in 2012-13 as compared to 66.40 MT in the previous year.

#### 4.1.4 ELECTRICITY

The information in respect of 7 CPSEs for the last 3 years is given in the Table below : -

**Table 4.1.4**

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	NTPC Limited	Electricity	35820 MU	83.08	85.00	88.29
2	NHDC Limited	Electrical Energy	1520 MW	93.71	93.99	92.40
3	Neyveli Lignite Corporation Ltd.	Power Gross (MU)	2740 MW	82.80	82.84	80.75
4	North Eastern Electric Power Corporation Ltd.	Electricity	1130 MW	84.70	87.14	91.97
5	Nuclear Power Corporation of India	Electrical Power	4680 MW	80	79	71
6	NHPC Limited	Electricity	4024.2 MW	85.3	83.3	85.3
7	SJVN Limited	Electricity	1500 MW	98.13	97.72	89.79
8	THDC India Ltd.	Electricity	1400 MW	78.19	80.81	74.41

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

NTPC Limited generated 232028 Million Units of Electricity during 2012-13 as against 222068 Million Units during the previous year.

NHDC Limited generated 4160.50 Million Units of Electrical Energy during 2012-13 as against 4663.68 Million Units during the previous year.

Neyveli Lignite Corporation produced 19902 Million Units of power during 2012-13 as compared to 18789 Million Units during the previous year.

North Eastern Electric Power Corporation Ltd. generated 4690 Million Units of Electricity during 2012-13 as compared to 4825 Million Units in the previous year.

Nuclear Power Corporation of India Ltd. generated 32863 Million Units of Electrical Power during 2012-13 as compared to 32455 Million Units in the previous year.

SVJN Limited generated 6777.78 MOU of electricity during the year 2012-12 as compared to 7610.26 MU during the previous year.

NHPC Limited generated 18923 Million Units of Electricity during 2012-13 as compared to 18683 Million Units in the previous year.

THDC India Limited generated 4266.03 Million Units of Electricity during 2012-13 as compared to 4591.26 Million Units in the previous year.

#### 4.1.5 PETROLEUM

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

**Table: 4.1.5**

SI.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Indian Oil Corporation Ltd.	Crude Oil	54200 TMT	100.8	102.6	102.0
2	GAIL (India) Limited	Polymers	410000 MT	107.56	108.78	102.44
		Liquid Hydro Carbon	1506658 MT	91.33	95.58	90.86
3	Hindustan Petroleum Corporation Ltd.	Crude	14800 TMT	107	109	100

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

The combined through put by the 8 refineries of the Indian Oil Corporation Ltd. during the year 2012-13 was 54649.74 TMT as against the previous year's through put of 55621.88 TMT.

2012-13 as compared to 446000 MT in previous year.

During 2012-13, Hindustan Petroleum Corporation Ltd. achieved 15.78 MMT throughput as against 16.19 MMT in the previous year.

GAIL (India) Ltd. Produced 441000 MT polymers during

#### 4.1.6 FERTILIZERS

The capacity utilization by the three CPSEs during the last 3 years is given in the Table below:-

**Table 4.1.6**

SI.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Brahmaputra Valley Fertilizer Corporation Ltd.	Urea-Namrup II	240000 MT	45.60	42.61	35.89
		Urea-Namrup III	270000 MT	104.17	65.42	73.71
2	Madras Fertilizers Ltd.	Ammonia	346500 MT	75.3	81.7	80.9
		Urea	486750 MT	89.5	100.0	98.4
		NPK	840000 MT	11.9	4.3	-
3	National Fertilizers Ltd.	Urea	3230700 MT	99.4	104.6	102.3

(MT – Metric Tonne)

The Brahmaputra Valley Fertilizer Corporation Ltd. Produced 3.91 lakh MT of urea during 2012-13 as against the production of 2.79 lakh MT during the previous year.

The Madras Fertilizers Ltd. produced 2.608 lakh MT ammonia and 4.35 lakh MT urea during 2012-13. The corre-

sponding production figures for the previous year were 2.832 lakh MT ammonia and 4.867 lakh MT urea.

The National Fertilizers Ltd. produced 32.11 lakh MT of urea during 2012-13 as against the production of 34.01 lakh MT during the previous year.

#### 4.1.7 CHEMICALS AND PHARMACEUTICALS

The details of capacity utilization in respect of seven CPSEs are given below:-

**Table 4.1.7**

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Bengal Chemicals & Pharmaceuticals Ltd.	Tablets	10 Crore	11.70	83.00	85.00
		Capsules	500 lakh	41.40	70.03	87.20
		Ointment	60 MT	25.56	63.03	101.20
		Pheneol	3000 KL	19.70	58.54	19.70
		Alum	3000 MT	125.00	173.22	156.40
		Disinfectant	1200 KL	21.55	36.34	53.00
2	Bharat Immunological & Biological Corporation Ltd.	OPV	600 M Doses	65.72	17.32	-
		Zinc	240 M Tablets	9.75	5.07	15.75
3	Hindustan Fluorocarbons Ltd.	CFM-22	1265 MT	81.88	100	100
		PTFE	500 MT	61.98	26.24	24.92
4	Hindustan Organic Chemicals Ltd.	Hydrogen Peroxide	10450 MT	86	93	103
		Formaldehyde	33000 MT	77	86	97
		Aniline	191000 MT	58	19	10
		Nitrobenzene	27000 MT	63	45	30
5	Karnataka Antibiotics & Pharmaceuticals Ltd.	Dry Powder Vials	618 nos.	81	95	100
		Liquid Parenterals	396 nos.	172	146	145
		Tablets	3600 nos.	212	203	178
		Capsules	900 nos.	150	182	205
		Dry syrup & Suspension	30	150	143	140
6	Indian Drugs & Pharmaceuticals Ltd.	Tablets	2961 Million nos.	17.7	32.2	28.5
		Capsules	590 Million nos.	20.3	16.8	16.1
		Liquid Orals	396 Kilo liters	69.2	43.9	42.0
		Dry Syrup	36 Lakh bottles	56.9	52.3	22.0
7	Indian Medicines Pharmaceutical Corporation Ltd.	Ayurvedic and Unani Medicines	815500 Kg/Ltr.	80.15	78.77	81

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

Bengal Chemicals & Pharmaceuticals Ltd. produced 88 lakh tablets, 207.12 lakh capsules, 15.34 MT Ointment, 592.38 KL of Pheneol, 3753.36 MT of Alum and 258.67 KL of Disinfectant during 2012-13. The comparative figures for the previous year were 830 lakhs, 350.13 lakhs, 37.82 MT, 1756.27 KL, 5196.55 MT and 436.13 KL respectively.

Bharat Immunological & Biological Corporation Ltd. produced 394.349 Million Doses of OPV and 23.413 Million Tablets of Zinc during 2012-13 as against the production of 103.923 Million Doses and 12.163 Million Tablets, respectively during the previous year.

Hindustan Fluorocarbons Ltd. produced 1035.81 MT of CFM-22 and 309.92 MT PTFE during 2012-13 as against the production of 1265 MT and 131.19 MT respectively during the previous year.

Hindustan Organic Chemicals Ltd. produced 25369 MT Formaldehyde, 24293 MT Phenol, 8963 MT Hydrogen Peroxide, 7279 MT Aniline and 16872 MT Nitrobenzene during the year 2012-13 as compared to 28284 MT formaldehyde, 30034

MT Phenol, 9749 MT Hydrogen Peroxide, 3681 MT Aniline and 12029 MT Nitrobenzene during the previous year.

Karnataka Antibiotics & Pharmaceuticals Ltd. produced 503 lakh dry power vials, 682 lakh liquid parenteral, 7627 lakh tablets and 1345 lakh capsules during 2012-13. The comparative figures for the previous year were 587 lakh, 577 lakh, 7307 lakh and 1638 lakh respectively Installed capacity for Capsules was increased in the year 2011-12 from 450 lakhs to 900 lakhs.

Indian Drugs & Pharmaceuticals Ltd. produced 524.92 Million tablets, 119.68 Million capsules, 273.82 Kilo liters of liquid orals and 20.49 lakh bottles of Dry Syrup during 2012-13. The comparative figures for the previous year were 953.35 Million, 99.3 Million, 174.11 Kilo liters and 18.81 lakh bottles respectively.

Indian Medicines Pharmaceutical Corporation Ltd. produced a total production of Ayurvedic and Unani Medicines of 653628.510 Kg/Ltr. during the year 2012-13 as compared to 642387.000 Kg/Ltr. in the previous year.

#### 4.1.8 HEAVY ENGINEERING

The information in respect of six CPSEs for last 3 years is tabulated below:-

**Table 4.1.8**

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Bharat Heavy Electricals Limited	Turbine	20000 MW	96	116	107
		Generator	20000 MW	89	86	76
		Boilers, Valves & Boilers Aux.	1150340 MT	67	146	129
		Power Transformers	45000 MVA	72	73	58
		Traction Machines	3200 Nos.	80	78	73
		Electrical Machines	2250 Nos.	65	84	76
2	Bharat Wagon & Engg. Co. Ltd.	Wagons	880 VUs	13	26	22
3	Braithwaite & Co. Ltd.	Wagon	1200 VU	90.92	100.7	88.3
		Bogie	1800 Nos.	73.67	45.56	32.78
		Structural	3000 MT	423	399.3	143.7

4	Burn Standard Co. Ltd.	Wagon	2100 Nos.	70.52	54.7	50.1
		Steel Castings	6000 MT	83	50.5	45.8
5	Heavy Engineering Corporation Ltd.	5 cum Rope shovel	6120 tons	34.40	20.30	26.03
		24/96 Dragline	2000 tons	82.50	38.71	82.50
		EOT Cranes	3400 tons	98.10	117.12	99.97
		Machine tools & Accessories	3200 tons	10.90	17.54	12.98
		Steel & Mining spares	1360	68.31	107.21	75.81
		Forging & Forged Rolls	9600 tons	30.30	22.85	23.03
		Steel castings	29088 tons	12.40	11.60	15.05
6	Tungabhadra Steel Products Ltd.	Hydro Mech. equipments & structural	8213 MT	1.96	1.58	3.61
		Hydel Power generation	50.09 Lakh Units	8.48	100.50	75.79

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

- Bharat Heavy Electricals Ltd. produced 19217 MW of turbine, 17821 MW of generator and 7.70 Lakh MT of boilers, valves & boiler auxiliaries during 2012-13 as compared to 17417 MW turbine, 12939 MW generator and 10.1 Lakh MT boilers, valves & boiler auxiliaries during the previous year.
- Bharat Wagon & Engineering Company Ltd. Produced 113 VUs of Railway Wagons during the year 2012-13 as compared to 228 VUs during the previous year.
- Braithwaite & Co. Ltd. produced 1091 VUs Wagons; 1326 Bogies; 12690 MT structural during the year 2012-13. The corresponding figures during the previous year were 1208 VUs, 820 nos. and 11979 MT respectively.
- Burn Standard Co. Ltd. produced 1481 nos. Wagons; 2182 Bogies; 92 Couplers and 5032.7 MT Steel Castings during the year 2012-13. The corresponding figures during the previous year were 1149 nos., 1750 nos., 91 nos. and 3029.44 MT respectively.
- Heavy Engineering Corporation Ltd. produced 2107 tons of 5 Cum Rope Shovel, 1650.10 tons of 24/96 Dragline, 3335 tons of EOT Cranes, 350 tons of Machine Tools & Accessories, 929.00 tons of Steel & Mining Spares, 2912.40 tons of Forging & Forged Rolls and 3300.70 tons of Steel Castings during the year 2012-13. The corresponding figures during the previous year were 1242.30 tons 5 Cum Rope Shovel, 774.10 tons 24/96 Dragline, 3982.10 tons EOT Cranes, 561.20 tons Machine Tools & Accessories, 1458.10 tons Steel & Mining Spares, 2193.30 tons Forging & Forged Rolls and 3373.70 tons Steel Castings.
- Tungabhadra Steel Products Ltd. produced 161 MT hydro mechanical equipment & structural and 4.314 lakh units of hydel power during the year 2012-13 as compared to 130 MT and 51.154 lakh units in the previous year.

### 4.1.9 MEDIUM AND LIGHT ENGINEERING

The details of capacity utilization in respect of seven CPSEs for the last 3 years are given in the Table below: -

**Table 4.1.9**

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Central Electronics Limited	Solar PV Modules	6000 KW	20	50	53
		Axle counters	2500 nos.	21	22	25
		Phase shifters	40000 nos.	75	95	233
2	Electronics Corporation of India Ltd.	Electronic Fuzes	4 lakh nos.	44	4	0
		Energy Meters	10 lakh nos.	0.08	6	33
		Hybrid Micro Circuits	10 lakh nos.	6	7	15
		Electronic Voting Machines	2 lakh nos.	3	44	6
		M7 Radios	150 systems	34	151	109
3	HMT Watches Ltd.	Watches	68 lakh nos.	2.56	2.25	1.88
4	ITI Limited	GPON ONTs	60 K nos.	53.16	18.32	96.5
		SMPS Modules	2400 nos.	9.71	7.1	16.7
		NPR Smart Cards	25 M. nos.	9.16	14	-
		Def. Prod. Racks/ Sub Racks	3000 nos.	2.33	2.13	5.40
		Defence Telephone Instruments	20,000 nos.	9.08	82.86	5.38
5	Rajasthan Electronics & Instruments Ltd.	Electronic Milk Analyser	4500 nos.	155.69	140.42	140.58
		SPV Modules	19000 KW	75.87	100.00	142.75
		Wind Power Generation	20 lakh KWh	66.61	69.22	58.56
6	Scooters India Ltd.	3-Wheelers	16500 nos.	95.80	106.13	87.16
7	Biecco Lawrie Limited	Lubricating Oil	10000 KL	26.64	24.26	19.79

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

Central Electronics Ltd. produced 1214 KW Solar PV modules, 529 axle counters and 29977 phase shifters during the year 2012-13. The corresponding production during the previous year were 3018 KW, 537 axle counters and 19078 phase shifters, respectively.

Electronics Corporation of India Ltd. produced 176263 electronic fuzes; 750 energy meters; 57000 hybrid micro circuits and 5500 electronic voting machines in 2012-13. The corresponding production in the previous year was 17701, 60000 lakh, 66194 lakh and 88050 respectively.

HMT Watches Ltd. produced 174035 nos. watches in 2012-13 as compared to 153088 nos. in the previous year.

ITI Limited produced 31899 GPON ONTs; no orders for GSM project and SDH products, 233 nos. SMPS Modules

and 2.29 million nos. of NPR Smart Card during 2012-13. The corresponding figures during the previous year was 10992 GPON ONTs, 2371 BTS for GSM project, 3561 SDH products, 170 SMPS modules and no orders for NPR Smart Cards.

Rajasthan Electronics & Instruments Ltd. produced 7006 Electronic Milk Analysers; 5311 Kwp Solar PV modules and 13.32 lakh Kwh Wind Power during the year 2012-13 as compared to 6319 electronic milk analysers; 4825 Kwp SPV and 13.84 lakh Kwh Wind Power during the previous year.

Scooters India Ltd. produced 15807 three-wheeler scooters during 2012-13 as against 17512 in the previous year.

Biecco Lawrie Limited produced 2664.167 KL of lubricating oil during year 2012-13 as compared to 2425.786 KL in the previous year.

#### 4.1.10 TRANSPORTATION EQUIPMENT

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

**Table 4.1.10**

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilisation (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	BEML Ltd.	Mining & Construction, Railway & Metro and Defence products	69.78 lakh SMH	98	118	114
2	Cochin Shipyard Ltd.	Ship Building	150000 DWT	105.94	105.27	93.50
3	Goa Shipyard Ltd.	Shipbuilding	5.85 SSU	90.54	79.24	109.61
4	Hindustan Aeronautics Ltd.	Standard Man Hours	282.31 Lakh SMH	116	118	112
5	Hindustan Shipyard Ltd.	Shipbuilding	75250 DWT	65.73	75	82
6	Mazagon Dock Ltd.	Shipbuilding & Submarine	0.97 EFU	96.82	105.36	108.81
7	BBJ Construction Co. Ltd.	Bridge, Civil & Other		302.11	199.15	146.51
8	BBUNL	Domestic Job		16.15	14.74	11.19

(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 68.06 lakh hours during 2012-13 as compared to 82.15 lakh hours in the previous year.

Cochin Shipyard Ltd. built 158913 DWT of ships during the year 2012-13 as compared to 157910 DWT in the previous year.

The Goa Shipyard Limited produced 5.30 standard ship units in 2012-13 as compared to 4.64 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 2011-12 was 333.10 lakhs as compared to 323.28 lakhs in the previous year.

Hindustan Shipyard Ltd. built 49458 DWT of ships during the year 2012-13 as compared to 56437 DWT in the previous year.

#### 4.1.11 CONSUMER GOODS

The information relating to capacity utilization in respect of nine CPSEs for the last 3 years is given in the Table below:-

Table 4.1.11

Sl.No.	CPSE	Product	Installed Capacity (2012-13)	Capacity Utilization (%)		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Artificial Limbs Manufacturing Corporation of India	Mech. Hand	6300 nos.	78	68.60	69.49
		Axilla Crutch	62400 nos.	74.63	40.34	42.95
		Wheel Chair	30000 nos.	190.60	112.7	73.07
		Tricycle	78000 nos.	121.26	65.21	46.85
		Hearing Aid	36000 nos.	209.06	93.7	104.38
2	HLL Lifecare Ltd. (formerly, Hindustan Latex Ltd.)	Condoms	1344M.Pcs	102	100	101
		Blood Bags	11.5M.Pcs	66	38	56
		Copper T	5.50 M.Pcs	68	74	82
		Steroidal OCPs	98.66 M. Pcs	47	56	59
		Pregnancy Test Card	26 M. Pcs.	74	72	91
3	Hindustan Paper Corporation Ltd.	Writing & Printing Paper	2 Lakh MT	69.48	90.13	77.39
4	Hindustan Photo Films Manufacturing Co. Ltd.	Cine Products, X-Ray & Graphic Arts	33.62 M. Sq.m	0.19	0.50	5.78
5	Hindustan Newsprint Ltd.	Newsprint	100000 MT	103	102	105
6	Hindustan Salts Ltd.	Liquid Bromine	900 TPA	31.11	23.4	16.8
7	NEPA Ltd.	Newsprint	88,000 MT	56.88	67.28	53.89
8	Security Printing and Minting Corpn. of India Ltd.	Coins	6620 M.Pcs	101	101	101
		Bank Notes	6600 M.Pcs	112	105	88
9	Tyre Corporation of India Ltd.	Automotive Tyres	23,310 MT	2.54	5	44

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

Artificial Limbs Manufacturing Corporation of India produced 4914 nos. Mechanical Hands, 46568 nos. Axilla Crutch, 57181 nos. Wheel Chairs, 94582 nos. Tricycles and 75261 nos. Hearing Aids in 2012-13. The corresponding figures for the previous year were 4322, 25171, 33819, 50867 and 33732 respectively.

HLL Lifecare Ltd. (formerly Hindustan Latex Ltd.) produced 1629.23 million pieces of condoms during the year 2012-13 as compared to 1349 million pieces in the previous year.

Hindustan Paper Corporation Ltd. produced 138962 MT Writing & Printing Paper during the year 2012-13 as compared to 180262 MT during the previous year.

Hindustan Newsprint Ltd. produced 103282 MT newsprint during the year 2012-13 as compared to 102450 MT during the previous year.

NEPA Ltd. produced 50055 MT newsprint during the year 2012-13 as compared to 59205 MT during the previous year.

Security Printing and Minting Corporation of India Ltd. produced 6708 Million pieces of Coins and 7421 Million pieces of Bank Notes during the year 2012-13 as compared to 6282 Million pieces of Coins and 6539 Million pieces of Bank Notes during the previous year.

Tyre Corporation of India Ltd. is doing 100% Jobbing work. Production is based on availability of jobbing work. Production of own brand tyres discontinued from 1.4.2002. Due to increase of Plant capacity by the jobbers and change in the market demand pattern for BIAS tyres, there is no outsourcing of tyres by major tyre manufacturers. Thus TCIL have no scope to increase capacity utilization.

#### 4.1.12 CRUDE OIL

Information relating to production in respect of two CPSEs for the last 3 years is given in the Table below:-

**Table 4.1.12**

Sl.No.	CPSE	Product	Unit	Production		
				2012-13	2011-12	2010-11
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Oil and Natural Gas Corporation Ltd.	Crude Oil	MMT	26.12	26.93	27.28
		Natural Gas	BCM	25.33	25.51	25.32
2	Oil India Ltd.	Crude Oil	MMT	3.70	3.842	3.580
		Natural Gas	MSCM	2639	2633	2352
		LPG	MT	92.02	51978	45004
3	ONGC VIDESH Ltd.	Crude Oil	MMT	4.34	6.21	6.76
		Natural Gas	BCM	2.92	2.54	2.69

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

#### 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 where the thrust is on performance improvement. An attempt has been made in this chapter to present an overview, cognate group-wise analysis and a company-wise

position of inventory.

##### 4.2.1 Overall Analysis

The materials management in public enterprises has improved over the years. The inventory level, which was 72 days cost of production/turnover as on 31.3.1997 has declined to 49 days cost of production/turnover as on 31.3.2013. The overall position of inventory management during the last 17 years is depicted in the Table 4.2.1 below:

**Table 4.2.1**

Year ending	Value of Inventory (₹ in crore)	Cost of Production/ Turnover (₹ in crore)	Inventory in No. of days Cost of Production/ Turnover
31.3.1997	40815	206658	72
31.3.1998	41661	218940	69
31.3.1999	44404	278720	58
31.3.2000	52414	354446	54
31.3.2001	50717	425100	44
31.3.2002	52175	431362	44
31.3.2003	58282	466444	46
31.3.2004	59705	513334	42

31.3.2005	73642	626427	43
31.3.2006	90885	714841	46
31.3.2007	101527	836922	44
31.3.2008	128688	958346	49
31.3.2009	126327	1147734	40
31.3.2010	161798	1087601	54
31.3.2011	191754	1293759	54
31.3.2012	23397436	155812479	50
31.3.2013	23001440	172449446	49

The above figures do not include inventory held by the Food Corporation of India, the Cotton Corporation of India Ltd. and the Jute Corporation of India Ltd. as these Corporations 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 public enterprises 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 for the last two years is indicated in the Table 4.2.2 below:

**Table 4.2.2**

Cognate Group	Inventory as on 31.3.2012		Inventory as on 31.3.2013	
	Value (₹ in crore) 2011-12	No. of days Cost of Production/ Turnover	Value (₹ in crore) 2012-13	No. of days Cost of Production/ Turnover
(a) Agriculture Sector				
1. Agro-based Industries	263.26	94	291.51	85
Total	263.26	94	291.51	85
(b) Electricity Sector				
1. Electricity Generation	4898.66	20	5503.77	22
2. Electricity Transmission	440.31	16	551.53	16
Total	5338.97	20	6055.30	21
(c) Manufacturing Sector				
1. Chemicals & Pharmaceuticals	306.79	72	274.87	59
2. Consumer Goods	1568.29	107	1501.21	91
3. Fertilizers	2809.85	55	2674.30	52
4. Heavy Engineering	13874.23	126	12165.65	107
5. Medium & Light Engineering	4276.07	118	5156.08	131
6. Petroleum (Refinery & Mktg.)	109849.51	44	108292.68	36

7. Steel	17614.30	117	20346.38	138
8. Textiles	282.82	90	279.37	79
9. Transportation Equipment	36725.56	607	39821.42	626
Total	187307.42	59	190511.96	55
(d) Mining Sector				
1. Coal	6064.51	45	5611.79	39
2. Crude Oil	6272.44	32	6937.52	33
3. Other Minerals & Metals	2478.64	72	3030.50	79
Total	14815.59	41	15579.81	40
(e) Services Sector				
1. Contract & Construction Services	8686.92	228	10481.29	253
2. Telecommunication Services	3699.64	45	3857.84	48
3. Trading & Marketing Services	2409.23	08	1738.01	5
4. Transport Services	1453.33	17	1498.68	16
Total	16249.12	33	17575.82	31

In Agriculture Sector, the level of inventory in terms of number of days cost of production/turnover has gone down from 94 days as on 31.3.2012 to 85 days as on 31.3.2013. In Electricity Sector the level of inventory which was 20 days cost of production/turnover as on 31.3.2012 has gone up to 21 days cost of production/turnover as on 31.3.2013. In Manufacturing Group, there is a decrease in the level of inventory from 59 days as on 31.3.2012 to 55 days cost of production/turnover as on 31.3.2013. In case of Mining Sector the level of inventory in terms of number of days cost of production/turnover which was 41 days as on 31.3.2012 has slightly come down to 40 days cost of production/turnover as on 31.3.2013. However, in the case of Services Sector, the level of inventory, which was 33 days cost of production/turnover as on 31.3.2012 has also come down slightly to 31 days cost of pro-

duction/turnover as on 31.3.2013.

It is observed that there is reduction in the level of inventory in terms of number of days cost of production/turnover in sectors viz. Agro based Industries, Chemicals & Pharmaceuticals, Consumer Goods, Fertilizers, Petroleum (Refinery & Marketing), Heavy Engineering, Textiles, Coal, Trading & Marketing Services and Transport Services. The level of inventory has gone up in sectors like Electricity Generation, Medium & Light Engineering, Transport Equipment, Steel, Crude Oil, Other Minerals & Metals, Contract & Constructions Services and Telecommunication Services. Level of inventory remained unchanged in the case of Electricity Transmission. Overall level of inventory which was 52 days cost of production/turnover during 2011-12 has come down to the level of 49 days cost of production/turnover during 2012-13.

### 4.2.3 Heavy Engineering

The value of inventory held by the 10 public enterprises belonging to this group was ₹ 12165.65 crore representing 107 days cost of production as on 31.3.2013 as against a total inventory valued at ₹ 13874.23 crore representing 126 days

cost of production as on 31.3.2012. The value of inventory held by individual enterprises together with the level of inventory in terms of number of days cost of production for the last two years is given in Table 4.2.3 below:

Table 4.2.3

Sl. No.	Name of the Company	Inventory(₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bhart Bhari Udyog Nigam Ltd	0.00	0.92	0	19
2.	Bharat Heavy Electricals Ltd.	13444.50	11763.82	126	107
3.	Bharat Heavy Plate & Vessels Ltd.	63.31	57.18	170	111
4.	Bharat Wagon & Engg. Co. Ltd.	8.65	4.22	64	44
5.	BHEL Electricals Machines Ltd.	4.03	4.18	44	59
6.	Braithwaite & Co. Ltd.	36.85	39.16	55	52
7.	Burn Standard Company Ltd.	38.47	38.60	85	62
8.	Heavy Engineering Corpn. Ltd.	273.75	253.86	142	131
9.	Triveni Structurals Ltd.	3.72	3.02	223	40
10.	Tungabhadra Steel Products Ltd.	0.95	0.69	61	43
	Total	13874.23	12165.65	126	107

Of the 10 public enterprises, 8 could reduce the level of inventory during 2012-13 as compared to the previous year while in the case of 2 companies there has been increase in the level of inventory.

#### 4.2.4 Medium & Light Engineering

The value of inventory held by 22 enterprises of this group as on 31.3.2013 was ₹ 5156.08 crore representing 118 days cost of production held by them as on 31.3.2012. The company-wise inventory position for the last 131 days cost of production as compared to ₹ 4276.07 crore two years is depicted in the Table 4.2.4 below:

Table 4.2.4

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Andrew Yule & Co. Ltd.	33.96	34.23	45	42
2.	Balmer Lawrie & Co. Ltd.	123.35	119.60	21	18
3.	Bharat Dynamics Ltd.	602.57	1006.53	205	313
4.	Bharat Electronics Ltd.	2673.80	3191.29	185	208
5.	BEL Optronics Ltd,	44.58	45.86	270	105
6.	Bharat Pumps & Compressors Ltd.	54.85	83.51	135	204
7.	Biecco Lawrie Ltd.	14.39	10.45	89	66
8.	Central Electronics Ltd.	49.05	37.18	108	75
9.	Electronics Corpn. of India Ltd.	198.40	161.71	53	36
10.	Hindustan Cables Ltd.	42.49	42.52	97	49
11.	HMT Bearings Ltd.	3.72	6.59	79	194
12.	HMT Chinar Watches Ltd.	7.33	8.81	616	1546
13.	HMT Ltd.	56.14	32.99	103	64
14.	HMT Machine Tools Ltd.	85.22	104.69	114	151
15.	HMT Watches Ltd.	34.41	34.36	210	193

16.	ITI Ltd.	112.62	104.91	33	35
17.	IDPL (Tamilnadu) Ltd.	3.44	1.24	161	27
18.	Instrumentation Ltd.	68.77	68.81	104	126
19.	Rajasthan Electronics & Instruments Ltd.	11.06	8.27	20	15
20.	Richardson & Cruddas (1972) Ltd.	2.50	2.18	13	11
21.	Scooters India Limited	38.39	35.53	66	66
22.	Vignyan Industries Ltd.	15.03	14.82	161	201
	Total	4276.07	5156.08	118	131

Of the 22 public enterprises, 12 could reduce the level of inventory during 2012-13 as compared to the previous year while in the case of 9 companies there has been increase in

the level of inventory. It remained unchanged in the case of Scooters India 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 2012-13 was ₹ 3030.50 crore representing 79 days cost of

production. At the end of 2011-12, the value of inventory was ₹ 2478.64 crore representing 72 days cost of production. The company-wise details are presented in the Table 4.2.5 below:

**Table 4.2.5**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bisra Stone Lime Company Ltd	7.84	4.67	74	38
2.	FCI Aravali Gypsum & Minerals (I) Ltd.	4.64	5.28	36	39
3.	Hindustan Copper Ltd.	320.65	378.28	107	118
4.	Indian Rare Earths Ltd.	68.22	131.41	64	141
5.	J&K Mineral Dev. Corpn. Ltd.	0.00	0.00	0	0
6.	Kudremukh Iron Ore Co. Ltd.	220.46	332.99	56	106
7.	Manganese Ore (India) Ltd.	81.29	51.49	60	33
8.	National Aluminum Co. Ltd.	1212.70	1380.64	75	77
9.	National Mineral Dev. Corpn. Ltd.	458.92	637.46	66	67
10.	Eastern Investment Ltd	0.00	0.00	0	0
11.	Orissa Mineral Development Co. Ltd	26.64	27.09	184	184
12.	Uranium Corporation of India Ltd.	77.28	81.19	47	43
	Total	2478.64	3030.50	72	79

Of the 12 public enterprises, 3 could reduce the level of inventory during 2012-13 as compared to the previous year while in case of 5 companies there has been increase in the level of inventory. It remained unchanged in the case of Orissa

Mineral Development Co. Ltd. J&K Mineral Dev. Corpn. Ltd. & Eastern Investment Ltd. did not hold any inventory during 2012-13.

#### 4.2.6 Fertilizers

There were 7 companies engaged in the production of fertilizers. The value of inventory held by them as on 31.3.2013

was ₹ 2674.30 crore representing 52 days cost of production as compared to an inventory value of ₹ 2809.85 crore representing 55 days cost of production at the end of previous year. Company-wise analysis of inventory is given in Table 4.2.6 below:

Table 4.2.6

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Brahmaputra Valley Fertilizer Corpn.	37.19	54.21	28	37
2.	Fertilizers & Chem. (Travancore) Ltd.	759.63	674.45	101	97
3.	Fertilizer Corpn. of India Ltd.	15.56	15.52	543	460
4.	Hindustan Fertilizer Corpn. Ltd.	0.00	0.00	0	0
5.	Madras Fertilizers Ltd.	302.94	307.45	54	50
6.	National Fertilizers Ltd.	516.82	417.61	27	22
7.	Rashtriya Chemicals & Fertilizers Ltd.	1177.71	1205.06	70	67
	<b>Total</b>	<b>2809.85</b>	<b>2674.30</b>	<b>55</b>	<b>52</b>

The level of inventory has decreased in 5 public enterprises during 2012-13 and increased in case of one public enterprise. Hindustan Fertilizer Corpn. Ltd. did not hold any inventory during 2012-13.

#### 4.2.7 Chemicals & Pharmaceuticals

The value of inventory held by 11 enterprises belonging to this group as on 31.3.2013 was ₹ 274.87 crore representing 59 days cost of production as compared to ₹ 306.79 crore representing 72 days cost of production held by them as on 31.3.2012. The company wise inventory position for last two years is given in Table 4.2.7 below:-

Table 4.2.7

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bengal Chem. & Pharmaceuticals Ltd.	18.96	20.01	92	142
2.	Bharat Immunologicals & Biologicals Ltd.	19.79	32.08	172	71
3.	Hindustan Antibiotics Ltd.	16.45	11.43	48	41
4.	Hindustan Fluorocarbons Ltd.	6.14	10.58	37	91
5.	Hindustan Insecticides Ltd.	72.56	78.69	102	106
6.	Hindustan Organic Chemicals Ltd.	107.29	59.24	64	32
7.	Indian Drugs & Pharmaceuticals Ltd.	15.00	10.22	70	51
8.	Indian Medicines & Pharmaceuticals Corp. Ltd.	9.32	11.02	139	146
9.	Karnataka Antibiotics & Pharma. Ltd.	29.03	32.78	52	58
10.	Orissa Drugs & Chemicals Ltd.	3.30	2.16	117	64
11.	Rajasthan Drugs & Pharm. Ltd.	8.95	6.66	43	31
	<b>Total</b>	<b>306.79</b>	<b>274.87</b>	<b>72</b>	<b>59</b>

Of the 11 public enterprises, 6 could reduce the level of inventory during 2012-13 as compared to the previous year while in case of 5 public enterprises there has been increase in the level of inventory.

### 1.1.8 Steel

The value of inventory held by 5 companies was ₹ 17614.30 crore at the end of 2011-12 as compared to ₹ 20346.38 crore held by them at the end of 2012-13. The level of inventory has gone up from 117 days cost of production at

the end of the previous year to 138 days cost of production at the end of 2012-13. The company-wise position is indicated in the Table 4.2.8 below:

**Table 4.2.8**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Ferro Scrap Nigam Ltd.	5.30	4.38	11	8
2.	Mishra Dhatu Nigam Ltd.	443.36	482.93	394	392
3.	Rashtriya Ispat Nigam Ltd.	3403.11	3828.60	101	120
4.	Steel Authority of India Ltd.	13742.37	16008.21	120	141
5.	SAIL Refractory Company Ltd.	20.16	22.26	245	93
	<b>Total</b>	<b>17614.30</b>	<b>20346.38</b>	<b>117</b>	<b>138</b>

The value of inventory has decreased in 3 public enterprises during 2012-13 as compared to the previous year and increased in 2 public enterprises.

### 4.2.9 Transportation Equipment

8 public enterprises are engaged in the production of transportation equipment. The value of inventory held by these companies was ₹ 39821.42 crore during the year 2012-13 as against ₹ 36725.56 crore during 2011-12. The level,

which was 607 days cost of production at the end of previous year, has gone up to 626 days cost of production at the end of 2012-13. The company-wise details are given in the Table 4.2.9 below:

**Table 4.2.9**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bharat Earth Movers Ltd.	2420.64	2456.19	334	309
2.	Cochin Shipyard Ltd.	362.54	356.86	109	97
3.	Garden Reach Shipbuilders & Engrs. Ltd.	3317.07	4096.96	1047	1061
4.	Goa Shipyard Ltd.	355.97	435.94	224	310
5.	Hindustan Aeronautics Ltd.	16085.83	17862.71	438	460
6.	Hindustan Shipyard Ltd.	253.19	135.69	142	84
7.	Hooghly Dock & Port Engineers Ltd.	111.05	106.28	966	590
8.	Mazagon Dock Ltd.	13819.27	14370.79	2113	2362
	<b>Total</b>	<b>36725.56</b>	<b>39821.42</b>	<b>607</b>	<b>626</b>

Of the 8 public enterprises, 4 could reduce the level of inventory during 2012-13 as compared to the previous year. It increased in the case of 4 public enterprises during the year 2012-13.

#### 4.2.10 Consumer Goods

14 companies belonging to the consumer goods group held an inventory valued at ₹ 1501.21 crore representing 91 days cost of production during the year 2012-13 as against an

inventory valued at ₹ 1568.29 crore held by them during the previous year representing 107 days cost of production. The company-wise position is given in Table 4.2.10 below:

**Table 4.2.10**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Artificial Limbs Mfg. Co. of India.	24.38	29.79	116	94
2.	Cement Corpn. of India Ltd.	159.66	162.36	169	189
3.	HLL Lifecare Ltd .	74.35	104.93	47	49
4.	Hindustan Newsprint Ltd.	72.04	92.76	79	100
5.	Hindustan Paper Corpn. Ltd.	218.24	239.17	92	101
6.	Hindustan Photo Films Manfg. Co. Ltd.	9.42	8.87	56	59
7.	Hindustan Salts Ltd	0.63	1.27	19	49
8.	Hindustan Vegetable Oils Corpn. Ltd.	0.85	0.32	33	23
9.	Hooghly Printing Co. Ltd.	0.08	0.05	2	2
10.	Nagaland Pulp & Paper Mills Ltd.	0.09	0.10	3	3
11.	NEPA Ltd.	20.09	19.40	40	40
12.	Sambhar Salts Ltd	6.19	5.63	131	118
13.	Security Printing & Minting Corpn. of India	979.84	835.15	128	93
14.	Tyre Corpn. of India Ltd.	2.43	1.41	27	24
	<b>Total</b>	<b>1568.29</b>	<b>1501.21</b>	<b>107</b>	<b>91</b>

The level of inventory has decreased in 5 public enterprises during 2012-13 and increased in 6 public enterprises. It remained unchanged in the case of 3 public enterprises.

#### 4.2.11 Petroleum (Refinery & Marketing)

There are 8 companies operating in Petroleum (Refinery & Marketing) sector as on 31.3.2013. These companies have inventory valued at ₹ 108292.68 crore as on 31.3.2013 as compared to ₹ 109849.51 crore at the end of previous year.

The level of inventory was 40 days cost of turnover as on 31.3.2012 as against 36 days cost of turnover as on 31.3.2013. The company-wise details of inventory are presented in the Table 4.2.11 below:

**Table 4.2.11**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bharat Petroleum Copn. Ltd.	15948.06	16690.37	26	24
2.	Chennai Petroleum Corpn. Ltd.	6359.72	6386.52	51	50
3.	GAIL (India) Ltd.	1419.74	1535.33	13	12
4.	GAIL Gas Ltd	5.16	4.56	6	2
5.	Hindustan Petroleum Corpn. Ltd.	19454.53	16438.70	30	28

6.	Indian Oil Corpn. Ltd.	56829.20	59314.39	49	46
7.	Mangalore Refinery & Petrochemicals Ltd.	7817.58	6715.26	50	36
8.	Numaligarh Refinery Ltd.	2015.52	1207.55	52	50
	Total	109849.51	108292.68	40	36

The value of inventory has decreased in all the 8 public enterprises during 2012-13 as compared to the previous year and.

#### 4.2.12 Crude Oil

There are 5 companies operating in Crude Oil sector as on 31.3.2013. These companies had inventory valued at ₹ 6937.52 crore as on 31.3.2013 as compared to ₹ 6272.44 crore at the end of previous year. The level of inventory was 32 days cost of production as on 31.3.2012 as against 33 days cost of production as on 31.3.2013. The company-wise details of inventory are presented in the Table 4.2.12 below:

**Table 4.2.12**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bharat Petro Recourses Ltd.	0.00	0.00	0	0
2.	Oil & Natural Gas Corpn. Ltd.	5165.44	5704.39	40	36
3.	Oil India Ltd.	533.32	644.33	31	38
4.	ONGC Videsh Ltd.	573.29	587.57	12	19
5.	Prize Petroleum Company Ltd.	0.39	1.23	27	51
	Total	6272.44	6937.52	45	39

The value of inventory has increased in 3 public enterprises during 2012-13 as compared to the previous year and decreased in case of one public enterprise. Bharat Petro Resources Ltd did not hold any inventory during 2012-13.

#### 4.2.13 Agro-Based Industries

The value of inventory held by 5 companies belonging to this group was ₹ 291.51 crore at the end of 2012-13 as compared to ₹ 263.26 crore at the end of the previous year. The level of inventory was at the level of 85 days cost of turnover at the end of 2012-13 as compared to 94 days cost of turnover at the end of previous year. Details of inventory held by these enterprises are given in the Table 4.2.13 below:

**Table 4.2.13**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Andaman & Nicobar Island. Forest & Plantation	2.21	2.22	114	171
2.	CREDA HPCL Biofuel Ltd.	0.00	0.06	0	0
3.	HPCL Biofuel Ltd.	68.78	104.37	3804	399
4.	Indian Oil-CREDA Biofuel Ltd.	0.00	0.12	0	24
5.	National Seeds Corpn. Ltd.	78.82	77.84	46	41
6.	State Farms Corpn. of India Ltd	113.45	106.90	109	83
	Total	263.26	291.51	94	85

Of the 6 public enterprises under this group, 2 public enterprises could reduce the level of inventory during 2012-13 as compared to the previous year and the level of inventory increased in the case of 2 public enterprises. It remained un-

changed in the case of CREDILA HPCL Biofuel Ltd. Indian Oil-CREDA Biofuel Ltd. held inventory for the first time in year 2012-13.

#### 4.2.14 Coal

The value of inventory held by 8 public enterprises belonging to this group as on 31.3.2013 was ₹ 5611.79 crore as compared to ₹ 6064.51 crore at the end of previous year. The level of inventory was 39 days cost of production as on

31.3.2013 as compared to 45 days cost of production at the end of previous year. Company-wise details are given in Table 4.2.14 below:

**Table 4.2.14**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1	Bharat Coking Coal Ltd.	1044.41	837.07	55	42
2	Central Coalfields Ltd.	1531.88	1258.64	91	70
3	Coal India Ltd.	18.51	15.66	12	8
4	Eastern Coalfields Ltd.	622.93	442.33	30	21
5	Mahanadi Coalfields Ltd.	648.70	571.53	42	35
6	Northern Coalfields Ltd.	727.97	998.39	55	66
7	South Eastern Coalfields Ltd.	899.51	820.84	32	26
8	Western Coalfields Ltd.	570.60	667.33	30	35
	Total	6064.51	5611.79	45	39

The value of inventory has decreased in 6 public enterprises during 2012-13 as compared to the previous year and increased in the case of two public enterprises.

#### 4.2.15 Textiles

There are 4 companies in Textiles sector as on 31.3.2013. The value of inventory held by companies belonging to this group was ₹ 279.37 crore at the end of 2012-13 as compared to an inventory of ₹ 282.82 crore at the end of previous year.

The level of inventory was 79 days cost of production during the year 2012-13 and 90 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)		Inventory/Cost of Production (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Birds, Jute & Exports Ltd.	0.00	0.00	0	0
2.	British India Corpn. Ltd.	5.15	4.55	45	38
3.	National Jute Manufacturers Corpn. Ltd.	21.45	17.41	112	137
4.	National Textile Corpn. Ltd.	256.22	257.41	91	78
	Total	282.82	279.37	90	79

Of the 4 public enterprises, the level of inventory increased in the case of one public enterprise in year 2012-13 and decreased in the case of 2 public enterprises as compared to previous year. Birds Jute & Exports Ltd. did not hold any inventory during 2012-13.

#### 4.2.16 Electricity Generation

The value of inventory held by 10 electricity generating companies as on 31.3.2013 was ₹ 5503.77 crore as compared to ₹ 4898.66 crore at the end of previous year. The level of inventory was 22 days cost of turnover as on 31.3.2013 as

against 20 days cost of turnover as on 31.3.2012. The company wise break-up of inventory is given in the Table 4.2.16 below:

**Table 4.2.16**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Kanti Bijlee Utpadan Nigam Ltd	18.75	23.00	54	850
2.	Neyveli Lignite Corpn Ltd	506.19	683.72	38	44
3.	Narmada Hydro Electric Development Corpn.	5.79	7.14	2	2
4.	National Hydroelectric Power Corpn. Ltd.	43.81	57.07	3	4
5.	North Eastern Electric Power Corpn. Ltd.	123.98	134.16	38	37
6.	National Thermal Power Corpn. Ltd.	3702.85	4057.19	22	22
7.	Nuclear Power Corpn. of India	452.22	485.40	21	22
8.	REC Power Distribution Co. Ltd.	0.00	0.00	0	0
9.	Satluj Jal Vidyut Nigam Ltd.	28.47	30.51	5	7
10.	Tehri Hydro Development Corpn. Ltd.	16.60	25.58	3	5
	Total	4898.66	5503.77	20	22

Of the 10 public enterprises under this group, one public enterprise could reduce the level of inventory during 2012-13 as compared to the previous year while in the case of 6 public enterprises there has been increase in the level of inventory.

REC Power Distribution Co. Ltd. did not hold any inventory during 2012-13. It remained unchanged in the case of 2 public enterprises.

#### 4.2.17 Transport Services

There are 12 public sector enterprises 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 remaining 11 companies was ₹.

1498.68 crore as on 31.3.2013 as compared to an inventory valued at ₹ 1453.33 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)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Air India Air Transport Services Ltd.	0.00	0.00	0	0
2.	Air India Charters Ltd.	53.53	63.52	14	15
3.	Air India Ltd.	907.26	950.00	23	22
4.	Airline Allied Services Ltd.	11.02	7.64	15	13
5.	Airports Authority of India	90.27	55.36	6	3
6.	Central Inland Water Transport Corpn Ltd	0.66	0.76	184	180
7.	Container Corpn. of India Ltd.	8.17	12.13	1	1

8.	Dredging Corpn. of India Ltd.	97.66	115.78	73	67
9.	Ennore Port Ltd.	0.00	0.00	0	0
10.	Fresh & Healthy Enterprises Ltd.	27.82	42.75	255	402
11.	Pawan Hans Helicopters Ltd.	79.49	67.28	70	54
12.	Shipping Corpn. of India Ltd.	177.45	183.46	17	16
	<b>Total</b>	<b>1453.33</b>	<b>1498.68</b>	<b>17</b>	<b>16</b>

In the Transport Services Sector, out of 12 public enterprises, the level of inventory increased in 2 public enterprises during 2012-13 as compared to the previous year while in the case of 7 public enterprises there has been decrease in the

level of inventory. The level of inventory remained unchanged in one public enterprise. No inventory was held by Air India Air Transport Services Ltd. and Ennore Port Ltd. during year 2012-13.

#### 4.2.18 Trading & Marketing Services

There were 21 companies in the Trading & Marketing Services group during the year 2012-13. Three companies namely, Food Corpn. of India, Cotton Corpn. of India and Jute Corpn. of India have been excluded for the purpose of analysis as these corporations keep stocks as deliberate policy. As such, the analysis covers the remaining 18 companies only.

These 18 companies held inventory valued at ₹ 1738.01 crore representing 5 days cost of turnover at the end of 2012-13 as compared to an inventory of ₹ 2409.23 crore representing 8 days cost turnover at the end of previous year. The company-wise details are given in the Table 4.2.18 below:

**Table 4.2.18**

Sl. No.	Name of the Company	Inventory (₹ in crore)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Antrix Corporation Ltd	0.00	0.00	0	0
2.	Central Cottage Industries Corpn.	7.08	9.49	36	47
3.	Central Railside Warehousing Co. Ltd.	0.00	0.00	0	0
4.	Central Warehousing Corpn.	6.57	5.68	2	2
5.	Handicrafts & Handlooms Exports Corpn.	99.58	20.51	3	2
6.	H.M.T. (International) Ltd.	0.41	0.02	5	0
7.	India Trade Promotion Organization	0.00	0.00	0	0
8.	Karnataka Trade Promotion Organization	0.00	0.00	0	0
9.	MMTC Ltd.	924.38	888.82	5	11
10.	MSTC Ltd.	0.00	73.75	0	4
11.	National Handloom Development Corpn. Ltd.	1.75	0.81	1	0
12.	North Eastern Handicrafts & Handlooms Corpn. Ltd.	1.31	1.11	28	31
13.	North Eastern Regional Agriculture Marketing Development Corporation	0.82	2.02	3	17
14.	NTPC Vidyut Vyapar Nigam Ltd.	0.02	0.01	0	0
15.	PEC Ltd.	808.79	692.20	26	21
16.	STCL Ltd.	14.81	0.09	41	0
17.	State Trading Corpn. Ltd.	543.71	43.50	6	1
18.	Tamilnadu Trade Promotion Organization	0.00	0.00	0	0
	<b>Total</b>	<b>2409.23</b>	<b>1738.01</b>	<b>8</b>	<b>5</b>

Of the 18 public enterprises in this group, 3 could reduce the level of inventory during 2012-13 as compared to the previous year while in 4 public enterprises there has been increase in the level of inventory. No inventory was held by Antrix Corporation Ltd, Central Railside Warehousing Co., NTPC Vidyut Vyapar Nigam Ltd., Tamilnadu Trade Promo-

tion Organization, Karnataka Trade Promotion Organization and India Trade Promotion Organization. It remained unchanged in case of Central Warehousing Corporation Ltd. HMT (International) Ltd., National Handloom Corporation Ltd. and STCL Ltd. did not hold inventory during 2012-13. MSTC Ltd held inventory for the first time during 2012-13.

#### 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 remaining 11 companies in this

group was ₹ 10481.29 crore as on 31.3.2013 as compared to ₹ 8686.92 crore held by them at the end of previous year. The level of inventory has increased from 228 days cost of turnover to 253 days cost of turnover. 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)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
	BBJ Construction Co. Ltd.	20.98	19.31	38	23
	Bridge & Roof Co. (India) Ltd.	695.83	790.96	201	219
	Hindustan Prefab Ltd.	0.21	0.21	0	0
	Hindustan Steelworks Constn. Ltd.	1.93	2.20	1	1
	IRCON Infrastructure & Services Ltd	0.00	0.00	0	0
	IRCON (International) Ltd.	134.51	124.56	14	11
	Konkan Railway Corpn. Ltd.	19.48	27.29	8	9
	Mineral Exploration Corpn. Ltd.	6.54	6.57	16	14
	Mumbai Railway Vikas Corpn. Ltd.	0.00	0.00	0	0
	National Bldg. Constn. Corpn. Ltd.	450.06	632.44	48	72
	National Projects Constn. Corpn. Ltd.	2.53	2.01	1	1
	Projects & Development India Ltd	2.36	4.69	9	25
	Rail Vikas Nigam Ltd.	7352.49	8871.05	1679	1530
	<b>Total</b>	<b>8686.92</b>	<b>10481.29</b>	<b>228</b>	<b>253</b>

Of the 13 public enterprises, 4 could reduce level of inventory during 2012-13 as compared to the previous year while in 4 public enterprises there has been increase in the level of inventory. It remained unchanged in case of Hindustan

Steelworks Constn. Ltd. and National Projects Construction Corpn. Ltd. No inventory was held by Mumbai Railway Vikas Corporation Ltd. and IRCON Infrastructure & Services Ltd. during 2012-13.

#### 4.2.20 Telecommunication Services

There were 4 public sector enterprises 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 ₹ 3857.84 crore as on 31.3.2013 as compared to ₹ 3699.64 crore held by them at the end of the previous year. The level of inventory has increased from 45 days cost of turnover to 48 days cost of turnover. 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)		Inventory/Cost of Turnover (No. of days)	
		2011-12	2012-13	2011-12	2012-13
1.	Bharat Sanchar Nigam Ltd.	3596.78	3772.09	51	54
2.	Mahanagar Telephone Nigam Ltd.	100.56	81.95	11	9
3.	Millennium Telecom Ltd.	0.00	0.00	0	0
4.	Railtel Corporation India Ltd.	2.30	3.80	2	4
	<b>Total</b>	<b>3699.64</b>	<b>3857.84</b>	<b>45</b>	<b>48</b>

Of the 4 public enterprises in Telecommunication Services group, the level of inventory decreased in one public enterprise and increased in two public enterprises during

2012-13 as compared to the previous year. No inventory was held by Millennium Telecom Ltd.

#### 4.2.21 Electricity Transmission

The value of inventory held by 3 electricity transmission companies as on 31.3.2013 was ₹ 551.53 crore as compared to ₹ 440.31 crore at the end of previous year. The level of

inventory was 16 days cost of turnover as on 31.3.2012 remained unchanged as 16 days cost of turnover as on 31.3.2013. 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)	
		2011-12	2012-13	2011-12	2012-13
1.	Power Grid Corporation of India	440.31	551.53	16	16
2.	NTPC Electric Supply Co. Ltd.	0.00	0.00	0	0
3.	REC Transmission Project Co. Ltd	0.00	0.00	0	0
	<b>Total</b>	<b>440.31</b>	<b>551.53</b>	<b>16</b>	<b>16</b>

Of the 3 public enterprises, level of inventory remained unchanged in the case of Power Grid Corporation of India Ltd. during the year 2012-13 while NTPC Electric Supply Co.

Ltd. and REC Transmission Project Co. Ltd. did not hold any inventory.

### 4.3 ENERGY CONSERVATION IN CPSEs

The issue of energy conservation is of great importance considering the rapid increase in the energy demand and consumption in all the economic sectors of the economy as a concomitant of economic growth. There is a greater need for energy conservation today as creating or building additional capacity is both capital and resource intensive. 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 conservation measures taken by some of the CPSEs during the year 2012-13 are discussed in the paragraphs below.

## 1. MISHRA DHATU NIGAM LIMITED (MIDHANI)

Energy Input	Consumption of Energy (₹ Crore)		Energy cost as percentage of cost of Production (%)		Consumption of energy per unit of Production (KWH/Tonne of Production)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Power	13.96	12.54	3.37	3.23	2091	2182
LPG	20.09	21.41	4.85	5.52	0.18	0.23

Some of the measures taken to save energy during the year 2012-13 were revamping of furnaces, regular maintenance of furnaces, latest refractory lining, regular calibrations,

developing a common heat treatment cycle for similar products etc. Solar water heaters were also introduced at appropriate places to save energy during the year.

## 2. RASHTRIYA ISPAT NIGAM LIMITED (RINL)

Energy Input	Consumption of Energy (₹ Crore)		Energy cost as percentage of cost of production		Consumption of energy per unit of production		
	2012-13	2011-12	2012-13	2011-12	Unit	2012-13	2011-12
Electricity	211.52	132.94	2.21	1.39	Kwh/Tcs	103.63	95.94
Fuel Oil	17.72	15.99	0.19	0.17	Lts/Tcs	0.98	0.87
Boiler Coal	342.13	298.27	3.57	3.11	Kg/Tcs	444.65	428.93
Coking Coal	4356.48	5021.31	45.49	52.43	Kg/Tcs	1253.7	1235.8

Major energy conservation measures undertaken by RINL during the year 2012-13 are as under:

Commissioning of 14 MW Coke Oven Battery-4 Turbine and generating 10.75 MW power additionally from Coke Dry Quenching systems.

Reduction of BF gas bleeding from 3.48% to 2.95% by taking up proactive measures and optimizing distribution through Supervisory Control and Data Acquisition system(SCADA).

Replacement of Tubular Air Heater in Boiler-4 in Thermal Power Plant.

Replacement of Air Recuperators in F/C-1 and F/C-2 of LMMM.

Replacement of Gas Recuperator at the reheating furnace of WRM.

Commissioning of Waste Heat Recovery System in stoves of BF-3. This system will reduce flue gas loss to atmosphere by recovering waste heat and preheats combustion air and fuel gas.

Implementation of ISO 50001 Energy Management System Standards - First and only integrated steel plant to implement the standard.

The following energy conservation plans are under progress.

(a) Installation of Pulverized coal injection in Blast Furnace -1 & 2.

(b) Installation of 20.6 MW waste heat recovery system on sinter straight-line cooler of sinter machine 1 & 2.

(c) Installation of Energy Conservation facilities in expansion units such as Pulverized coal injection in BF-3, Energy Efficient furnace with multi slit burners in Sinter Machine-3, Heat recovery from circular cooler of Sinter Machine-3, Energy Efficient Air Separation Unit-5 etc.

(d) Conducting mandatory Energy Audit as per Energy Conservation Act-2001 by accredited Energy Audit Agency to improve the energy efficiency.

### 3. National aluminium company limited (NALCO)

2012-13

Energy Input	Consumption of Energy ( Crore)				Energy cost as percentage of cost of production			Consumption of energy per unit of production		
	Alumina	Aluminium	Power	Total	Alumina	Aluminium	Power	Alumina	Aluminium	Power
Coal	292	-	1033	1326	11.57	-	53.83	640 kg/MT	-	0.94 kg/KWH
Fuel Oil	602	118	90	810	24.25	2.34	4.68	78 ltr/MT	71 ltr/MT	2.78 ml/KWH
Purchased Power	77	76	-	153	2.95	1.51	-	349 KWH/MT	14,708 KWH/MT	-
Captive Power	67	1961	-	2028	2.80	38.93	-			

The details of major energy conservation measures undertaken by NALCO during the year 2012-13 are as under:

#### CAPTIVE POWER PLANT

**a. Energy management certificate under ISO 50001:** CPP was certified under ISO-50001 on 13.02.2013 and is valid for two years. The certification audit was carried out on 04.01.2013 by M/s. DNV.

**b. Carbon Sequestering Project:** CPP has undertaken a pilot project for carbon sequestering by algae. This is a latest technology for absorbing CO<sub>2</sub> directly from flue gas and the same would be utilized for growth of algae which can be further utilized as bio-diesel, a high protein food for cattle or can be used as a fuel to the boilers.

**c. Utilization of Effluent (Ash Pond):** During the year 1, 87, 64,710 M<sup>3</sup> of Ash water was recycled from the Ash Pond.

**d. Retrofitting of ESP with 3<sup>rd</sup> Pass:** The project of retrofitting of ESPs by installing an additional pass in the existing ESPs by M/s NASL with an expenditure of 135.53 crore for Unit 1, 2, 3, 4 & 6 is in progress. Retrofitting of ESP of Unit-5 and 6 has been completed. Total retrofitting work is

#### SMELTER:

The specific DC energy consumption in Smelter has reduced to all time best figure of 13394 KWHr/MT, which could be achieved by control of bath drop with ALPSYS advanced regulation system, reducing anodic problems, use of graphitised cathode block, use of slotted anodes in two pot-lines (433 pots), increasing Anode stub hole and pin length in all running pots. The activities have led to increase in overall Current Efficiency to 94.32% against 93.8% in 2011-12.

**a.** The Specific fuel oil consumption is also achieved to be all time best figure of 71 Lt/MT, through various controlling measures such as reduction of furnace idling time, incorporation of magnetic resonator in HFO line & semiautomatic firing with PID controller for optimum firing resulting

scheduled to be completed by July'2014.

**e. Energy saving luminaries like 2 x 28 W, T5 tube light fitting** – 1000 Nos. in place of 2 x 40W TL fitting, Electronic Tube light chokes 2500 Nos. in place of copper chokes and 70 W HPSV fittings of 1250 Nos. in place of 125 W HPMV fittings are replaced at different locations inside the plant.

**f. Replacement of 900 KW old type PA fan motors with new design motors:** The 900 KW motors of Unit#1 to Unit#5 are old type and failure was very frequent in 2009-10. It was decided to replace it with new design PA fan motors of BHEL make for improving the reliability. Six motors were procured in this connection.

**g. Energy audit of unit #7 and unit #8:** Energy audit of unit #7 was conducted by M/S Schneider during July-2012 and again of unit #8 during October-2012. They have identified few of the areas where there is scope of energy saving like reduction of unburnt carbon in fly ash and bottom ash, improvement in performance of LPH-3 and HPH -6, reduction in leakage in air preheater.

in proper atomisation & combustion in the furnaces of Rolling plant.

**b.** Smelter has taken up ten nos. of PAT projects (Perform, Achieve & Trade) to achieve the PAT target assigned. Out of ten projects three projects are completed contributing to above reduction in specific Energy consumption.

**c.** Feasibility study for Solar PV cells to harness the Renewable energy in compliance to RPO obligation is underway through external consultant and final report will be submitted by end of Sept'13. Depending on the report, Installation of solar PV cells on the roof of thirteen buildings of Smelter plant & Township having total area of 7500M<sup>2</sup>. It is assessed to have solar potential for generation of 1.17 MW during peak hour.

## REFINERY

- (a) Installation of VVFD in 23 nos. of drives at various Locations of refinery and SPP resulting saving of Power to the tune of 87 KW.
- (b) A new type of coupling i.e. Magnadrive coupling which transmits the torque using principle of magnetic induction was successfully installed in Conveyor-6A. With this unique feature of torque transmission, Magnadrive coupling has resulted many advantages over conventional fluid coupling like Electrical Energy saving to the tune of 4%, vibration isolation, misalignment tolerance, shock load tolerance etc.
- (c) Suitable modification was carried out to eliminate the

feed water loss from BFP(Boiler Feed Pump) warm up line. This has resulted in recovery of thermal energy and DM water.

- (d) Reduction in idle running of equipment was implemented in crusher and evaporator drives. Running of Agitators in isolated tanks were standardized to 5 minutes daily and also trial run of drives were standardized for 10 minutes daily. This has resulted in saving in electrical energy.
- (e) Optimization of running of CW Pumps in Old evaporator has resulted in saving in electrical energy and Running the evaporator in 6-6 mode has resulted in reduction in steam consumption.

## PANCHPATMALI BAUXITE MINES

1. Forty (40) energy meters installed earlier have been hooked up a with a Energy Management System (EMS) using the existing LAN network & dedicated servers. The system has been fine-tuned & now the same is capable of generating various analysis reports for energy
2. Detailed energy audit has been completed by M/s National Productivity Council (NPC). Out of their 13 recommendations with huge energy saving potential in Mines, one has been implemented while for the rest, the procurement & implementation actions are in progress.

consumption patterns.

### 4. Eastern Coalfields Limited (ECL)

Energy Input	Consumption of energy ( ₹ crore)		Energy cost as % age cost of production		Consumption of energy per unit of production KWH/Te	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	559.07	505.71	7.13	6.45	24.8	26.45

The following measures were taken during 2012-13 for energy conservation.

- (a) Installation of energy saving devices/energy meters.
- (b) Installation of Capacitor banks for power factor improvement.

- (c) Re-organisation of power supply system and segregation of load
- (d) Installation of pipe lines for direct pumping through bore holes
- (e) Installation of energy efficient lamps.

### 5. NEYVELI Lignite Corporation (NLC)

Name of the Company	Consumption of energy ( ₹ crore) Excluding Auxiliary consumption		Energy cost as percentage cost of production %	
	2012-13	2011-12	2012-13	2011-12
Neyveli Lignite Corporation Limited	3630.60	3239.73	75.5%	78.98

### Consumption of Energy per unit of production

Energy input	2012-13	2011-12
Auxiliary Power (%)	10.61	9.87
Oil (ml/Kwhr)	0.739	0.82
Lignite (Kg/Kwhr)	1.092	1.167

The major energy conservation activities carried out in various units of NLC during 2012-13 are as under:

- (a) Cleaning of choked mud in Cooling Tower No. 5 was carried out in TPS-I
- (b) Modification of drain lines for effective utilization of Auxiliary Steam header interconnection system during unit starting up in TPS-I Expn. This led to conservation of 8 T of oil.
- (c) Effective utilization of day light solar energy by providing translucent sheet at roof in stroes areas in TPS-I Expn.
- (d) Replacing of 40 w conventional tube lights by energy efficient T5 lamps in UCB area in TPS-I Expn
- (e) Modification in Boiler Feed Pumps of Unit II by replacing Labyrinth with mechanical seals in TPS-II.

## 6. NORTHERN COALFIELDS LIMITED (NCL)

Consumption of energy (₹ crore)		Energy cost as percentage cost of production		Consumption of energy per unit of production (in KWH/Cu.m.composite)	
2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
295.44	266.75	5.31	5.48	2.68*	2.65

NCL undertook following energy conservation measures during the year 2012-13.

- (a) Additional Compact fluorescent lamps (CFL) and other energy efficient lamps were installed at Khadia, Dudhichua, Kakri, Bina, CWS, Block-B, Jayant & Nigahi projects of NCL.
  - (b) Additional Time switches were installed and used for streetlights in CHP, Mines and residential Areas at HQ, Khadia, Block-B Jayant, Amlohri, Kakri, Bina, Dudhicha & Nigahi projects of NCL.
  - (c) Additional Energy meter and PF meters were installed at Khadia, Dudhichua, CWS, Jayant, Kakri & Amlohri projects of NCL.
  - (d) Various unauthorized detected electrical connections were disconnected.
- NCL has earned a bonus of ₹ 1.99 crore both from MPPKVCL and UPPCL points of supply put together towards power factor and load factor rebate during year 2012-.13 against bonus earned of ₹ 1.62 Crore during 2011-12.

## 7. SOUTH EASTERN COALFIELDS LIMITED (SECL)

Energy Input	Consumption of energy (₹ crore)		Energy cost as percentage cost of production (%)		Consumption of energy per unit of production (KWH/Te)/(Ltrs/Te)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	680.67	577.56	5.99	5.68	8.72	9.06
Diesel	359.91	296.22	3.17	2.91	0.59	0.58

The following energy conservation measures were taken by SECL during 2012-13:

- (a) Regular monitoring of power consumption pattern of all the service connection points and addition of requisite capacitors banks to improve power factor & thereby reducing power consumption.
- (b) Replacement of HPSV.HPMV/Metal Halide lamps with CFL lamps in street lights of residential areas of SECL.
- (c) Re-organization of pumping to avoid stage pumping by laying deliveries through bore-holes.
- (d) Monitoring of load pattern and Demand Side Management of supply points to control maximum demand.
- (e) Construction of Strata Bunkers in underground mines.
- (f) Power supply to UG mines by laying cables in bore-holes to reduce power losses.

## 8. WESTERN COALFIELDS LIMITED (WCL)

Consumption of energy (₹ crore)		Energy cost as percentage cost of production		Consumption of energy per unit of production	
2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
469.75	409.41	6.64%	5.74%	14.52kWH/T	14.22kWH/T

The details of energy conservation measures undertaken by WCL during the year 2012-13 are as under:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>(a) Addition of capacitors to improve and maintain the power factor above 0.95</li> <li>(b) Staggering of pumping operations</li> <li>(c) Eliminating stage pumping/reorganization of pumping.</li> <li>(d) Use of energy efficient tubes/CFL in place of high watt luminaires/conventional fittings.</li> <li>(e) Use of timers in street light circuits.</li> </ul> | <ul style="list-style-type: none"> <li>(f) Installation of UG bunker.</li> <li>(g) Replacement of over rated motors</li> <li>(h) Load shedding on domestic feeders</li> <li>(i) Reduce the idle running of CHP</li> <li>(j) Reorganization of LT OH line by cable and smaller size distribution transformers.</li> <li>(k) Old colonies of WCL in Pench area were handed over to MPPLVVCL to avoid electricity pilferage.</li> </ul> |
|--|--|

## 9. Coal India Ltd.

Name of the Company	Consumption of Energy (₹ crore)		Energy cost as Percentage cost of Production		Consumption of energy per unit of Production (kWh/Tonne)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
CIL	2553.67	2262.08	5.40	5.03	10.80	11.11

Major Energy Conservation measures undertaken during the year 2012-13 by Coal India Limited are as under:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>(a) Awareness programmers have been conducted at various levels for efficient use of energy.</li> <li>(b) Energy Audit and Benchmarking conducted of colliery and other loads.</li> <li>(c) Installation of capacitor banks for improvement of power factor.</li> <li>(d) Use of energy efficient lamps.</li> <li>(e) Construction of strata bunker in underground mines</li> </ul> | <ul style="list-style-type: none"> <li>to avoid idle running of belt conveyors and thereby saving energy.</li> <li>(f) Installation of time switches for street lights.</li> <li>(g) Use of higher voltage cables nearer to the coal face in mine to reduce energy losses.</li> <li>(h) Installation of demand controller to control maximum demand.</li> </ul> |
|--|---|

## 10. NORTH EASTERN ELECTRIC POWER CORPORATION LIMITED (NEEPCO)

Name of Power Station	Consumption of Energy (Auxiliary consumption) (₹ Crore)		Energy cost as percentage of cost of production (%)		Consumption of energy per unit of production (₹ /unit)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Kopili HE Plant	0.27	0.54	0.53	0.46	0.0029	0.0045
Doyang HE Plant	0.78	0.60	1.45	0.71	0.0364	0.026
Ranganadi HE Plant	1.26	1.08	1.15	0.69	0.0101	0.011
Assam Gas Based Power Plant	8.25	3.69	2.00	0.88	0.0491	0.02
Agartala Gas Turbine Power Plant	2.70	2.69	1.46	1.41	0.0426	0.0404

During the year 2012-13 the company strived for improvement in the Energy management at the NEEPCO Complex Guwahati leading to reduction in per capita energy consumption.

## 11. NTPC Limited (NTPC)

The details of major energy conservation measures undertaken during 2012-13 are as under:

### Energy Audits

- (a) During 2012-13, 80 energy audits in the areas of auxiliary power consumption, water balance, cooling

water system, thermal insulation, compressed air, coal handling plant, milling system, air conditioning, ash handling system, WHRB performance, lighting etc, were carried out at different stations of the Company.

- (b) A workshop on “EC opportunities in Thermal Power Plants with focus on Dry Ash Handling” was conducted at Lucknow.

## AUXILIARY POWER CONSUMPTION

- (a) Replacement of inefficient BFP cartridges and attending BFP recirculation valves and attending duct leakages/APH seal replacement at various projects  
(b) Flue Gas duct modification using CFD at Tanda,  
(c) Offline Gt Compressor washing during opportunity shutdowns at Gas Stations  
(d) Application of efficiency improvement coating on cooling water/other pump internals  
(e) Installation of VFD, various LT drives at various projects  
(f) Optimization of operation of CW pumps, ARCW, clarified water pumps & cooling Tower Fans and optimizing DP across Feed Regulating Station at various projects.

## LIGHTING

- (a) Replacement of conventional GLS lamps and conventional FTLs with CFLs/ efficient TL at various projects  
(b) Replacement of street lighting HPSV/Halogen/ FTL fixtures with LED high fixtures at Kayamkulam, Talcher Kaniha, Dadri & Kawas.

## HEAT ENERGY

- (a) Attending/upgrading thermal insulation at Rihand, Auraiya, Gandhar & kayamkulam  
(b) Attending passing in HP heaters at Rihand, Replacement of turbine seals at Ramagundam, attending high energy drains at Rihand & Simhadri.

## 12 SJVN Ltd.

Name of the Company	Energy utilized during production		Energy cost as Percentage cost of Production		Consumption of energy per unit of Production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
SJVN Ltd.	57.439 MU	77.318 MU	0.847%	1.016%	0.00847	0.01016

The company installed Automatic Voltage Regulators in illumination system of power house leading to savings in energy savings.

## 13 Chennai petroleum corporation limited (CPCL)

Energy Input	Consumption of Energy (₹ Crore)		Energy cost as percentage of cost of production *		Consumption of energy per unit of production (in ₹ /unit)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Fuel Oil	1474.7	1577.0	3.44	3.88	0.042	0.045
Naphtha	1741.4	1674.8	4.07	4.13	0.036	0.035
Fuel gas	444.6	396.6	1.04	0.98	0.013	0.011
Coke	136.9	138.4	0.32	0.34	0.004	0.004

Some of the energy conservation measures taken up by the company in 2012-13 are as under:

- (a) Shut down of Kerosene Hydro Treater and treating ATF in Merox unit
- (b) Shut down of old Hydrogen reformer unit
- (c) Reduction in power export
- (d) Pre-heat improvement in Crude units
- (e) Rectification of steam trap systems and steam leaks
- (f) Overhauling and improvements (based on NTPC recommendations) carried out in Boiler

#### 14. GAIL (India) Limited (GAIL)

Gas Processing Unit (Gpus)

Name of the Company	Consumption of Energy (₹ Crore)		Energy cost as percentage of cost of production		Consumption of energy per unit of production (in ₹ /unit)	
GAIL (India) Limited						
Energy Input	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	31.86	29.22	1.49	1.61	33.87 (KWH/MT)	35.013 (KWH/MT)
Gas	215.25	183.21	10.05	10.11	0.775 (MkCal/MT)	0.728 (MKCal/MT)

Pata Petrochemical Plant

Name of the Company	Consumption of Energy (₹ Crore)		Energy cost as percentage of cost of production (%)		Consumption of energy per unit of production (Polymer + LHC)	
GAIL (India) Limited						
Energy Input	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	98.59	84.67	3.81	4.19	263.47 (KWH/MT)	250.49 (KWH/MT)
Gas	417.7	371.21	16.13	18.38	14.18 (MMBtu/MT)	14.25 (MMBtu/MT)

Some of the important energy measures undertaken by GAIL India Limited during the year are as under:

- (a) Waste heat recovery from GTC Exhaust (HRSG): Recovery of waste heat from exhaust of Gas Turbine Compressor (GTC) at Vaghodia has been carried out by setting up of Waste Heat Recovery Steam Generation system (WHRSG) with an investment of 62 Crores. It is operational since August, 2012 and leading to generation of super-heated steam to the tune of 52 MT/Hr which is equivalent to recovery of 386837 MWH/annum energy. The approximately revenue generation is 15.65 Crores/ annum.
- (b) Feed Gas cooling from Cold generated due to pressure reduction of RLNG: A Scheme has been developed to utilize the cold generated due to pressure reduction of RLNG supplied to South Gujarat pipeline, for cooling of feed gas supplied to GPU Vaghodia with an investment of Approx ₹ 2.35 Crores. This scheme is resulting in saving of approximately 5600 MWH/Annum energy required through conventional mode of refrigeration and resulting in additional recovery of 1340 MTPA of LPG equivalents to ₹ 1.94 Crores.
- (c) Switching over of CCVT power to Grid/ solar Power: CCVT installed at remote RR stations to ensure reliable electrical power supply are less efficient source of power supply. Accordingly, CCVT/TEG has been replaced by Grid/Solar supply at some of RR/SV station in HVJ where reliable power is available. This has resulted in saving of around ₹ 63.0 Lacs in addition to reduced carbon foot print.
- (d) Automation of Burner Management System in Hot Oil Heater: Improved automated Burner management system has been installed in Hot Oil Heaters to replace earlier inefficient burners with manual control at GPU Vaghodia in month of June, 2012 with an investment of around ₹84.33 Lacs. The new automated Burner management system will result in fuel saving due to stoppage of pilot burner and enhances efficiency due to better Air Fuel Ratio control. It additionally enhances operational safety and environment friendliness. The reduction in fuel gas consumption is 12.79 % which corresponds to energy saving of 2957 MWH/Annum. Monetary benefit is ₹28 Lacs/Annum.
- (e) Installation of Energy Efficient UPS: At Dibiyapur Compressor Station old thyristor based UPS having efficiency of 70% is replaced with energy efficient IGBT based UPS having efficiency of 90%. This will result in saving of around 53200 KWH/annum which corresponds to ₹ 2.9 Lacs.

## 15. 15HINDUSTAN PETROLEUM CORPORATION LIMITED (HPCL)

Energy input	Consumption of energy ( ₹ Crore)		Energy cost as percentage cost of production		Consumption of energy per unit of production (MT/TMT)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
HPCL MR						
Electricity	458	283	11%	11%	84	87
Liquid fuel	617	513	NA	NA	21	19
Fuel gas	989	914	27%	28%	35	40
Coke	272	239	NA	NA	10	9
HPCL VR						
Electricity	481	458	1%	1%	64	62
Liquid fuel	1300	1327	NA	NA	34	35
Fuel gas	814	713	NA	NA	26	23
Coke	310	265	NA	NA	10	8

The details of major energy conservation taken during the year 2012-13 by the company are mentioned below:

### Mumbai Refinery:

- In an effort to recover hydrocarbon losses, refinery has commissioned Propane gas recovery system from DWO recovery circuit by installing ejector system. The facility was commissioned during 2012-13.
- Installation of condensate Preheater (CPH) coils in Heat recovery steam generators (HRSG-1 and HRSG-3) has resulted in fuel savings.
- Reduction in Fuel gas (FG) and Fuel oil (FO) consumption by maximizing cat circulation rate at 90-100 m3/hr in Old FCCU resulted in fuel savings.
- Improved the furnace efficiencies by replacing furnace bare tubes with studded tube bundle in convection section of solvent extraction unit.
- Periodic safety valves surveys were carried out with ultrasonic leak detector throughout the year resulting in potential hydrocarbon loss reduction.

- CDU-III Vacuum Furnace efficiency improvement was carried out, Vacuum Column random packing were replaced with structured packing resulting in reduced pressure drop, lower furnace COT and there by resulting in fuel savings and better yields.
- DEA solvent was replaced with MDEA solvent in ARU thereby reducing steam consumption in ARU re-boiler due to lower amine flow rate.
- Antifoulant injection was carried out at SR side of crude/ SR preheat exchangers, thus enabling reduced fouling of exchangers and hence resulting in energy savings.
- Periodic steam leak survey and survey and steam trap survey was carried out for the entire Refinery by engaging external surveyor using ultrasonic detector and visual methods as a part of regular steam leak monitoring. Arresting of steam leaks was carried out.
- Online chemical cleaning of CDU's & DHDS furnaces was carried out, which resulted in reduced stack temperatures and increased heater efficiencies. This has resulted in potential savings in fuel consumption.

### Visakh Refinery:

## 16. Indian oil corporation limited (IOCL)

Energy inputs	Consumption of energy ( ₹ Crore)		Energy cost as percentage cost of production		Consumption of energy per unit of production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Total- IOCL						
Electricity	2853.04	2719.15	8.20	8.11	99.919	97.918
Liquid Fuel	6697.25	6618.06			0.036	0.038
Fuel Gas/ Coke	7804.40	6727.92			0.046	0.043
Natural Gas	2975.60	2233.96			0.017	0.016

The details of major energy conservation taken during the year 2012-13 by the company are as under: .....

## 17. Brahmaputra Valley Fertilizers Corporation Limited (BVFCL)

Name of CPSE	Details of Energy Consumption per unit of output			
	Year Unit	2012-13	2011-12	2010-11
Brahmaputra Valley Fertilizer Corporation Ltd	Namrup-II	16.29	15.57	15.76
	Namrup-III	10.37	12.78	14.65

The following energy conservation schemes have been implemented by the company during the year.

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>(a) Utilisation of CGO CR for reboiling CL-20 bottom in place of MP steam in DCU LRU section at Guwahati Refinery.</li> <li>(b) Commissioning of TG-1 on full back pressure mode at Barauni Refinery.</li> <li>(c) Reduction in gas / oil ratio in DHDT at Barauni Refinery.</li> <li>(d) Increase in HP steam header pressure ex TPS from 34 to 37.5 Kg/cm<sup>2</sup> (g) at Gujarat Refinery.</li> <li>(e) Vacuum improvement in VDU from 80/100 mmHg (abs) to 60/70 mmHg 9abs) at Gujarat.</li> </ul> | <ul style="list-style-type: none"> <li>(f) Reduction in gas to oil ratio in OHCU from 570 NM<sup>3</sup> / hr to 400-450 NM<sup>3</sup>/hr at Haldia Refinery.</li> <li>(g) Reducing De-iso-hexaniser reflux ratio from 7.0 to level of 3.75 at Mathura Refinery.</li> <li>(h) Change of catalyst in OHCU and tightening of feed/ effluent exchanger at Panipat Refinery.</li> <li>(i) Installation of magnetic resonators in GTs as well as AVU &amp; DCU furnace at Digboi Refinery.</li> <li>(j) Preheat Train optimization in CDU-I from 227 to 270 Deg C at Bongaigaon Refinery.</li> </ul> |
|--|--|

## 18. Madras Fertilizers Limited (MFL)

Name of Company	Consumption of energy ( ₹ Crore)			Energy cost as percentage of cost of production (%)		
MADRAS FERTILIZERS LIMITED	Year	2012-13	2011-12	Product	2012-13	2011-12
	Energy Input					
	Naphtha	1140.80	10.81.91	Ammonia	90.10	92.08
	Furnace oil	533.39	513.08	Urea	91.10	92.05
	Power	68.94	50.78	17-17-17	16.28	14.69
	HSD	5.62	11.82	20-20-0-13	-	16.92

The details of major energy conservation measures undertaken during 2012-13 are as under.

### (a) Auto-start provision for Steam Turbines of HDS Stripper Bottom Pump (J1152) and 110 ATA Boiler feed water pump (BFWP)

Initially, the auto start provision was not available for these turbines. To stop these turbines and to reduce energy consumption, auto start provision was provided by installing UV in the steam inlet line. After checking the reliability of the auto start of turbine pumps, motor driven pump was lined up for service and turbine pumps were stopped. This has resulted in the steam savings of about 4 TPH of 600 psig steam.

### (b) E1401 Plate Heat Exchanger bypass provision and Steam saving in 110 ATA Boiler deaerator

The required lean flow is 270 TPH. During the year 2012, the lean flow has come down to 200 TPH and the flow was maintained at 245 TPH by opening the bypass line already provided (to bypass both E1401 and E1404). This has resulted

in the reduction of stripper top temperature and increase in lean pump suction temperature. An additional line was provided to bypass E1401 alone (i.e. the stripper outlet line was directly connected at E1404 inlet). After this modification, the lean pump suction temperature has come down from 55 to 50°C and the 110 ATA deaerator steam consumption has come down from 8 TPH to 6 TPH due to increase in deaerator inlet DMW temperature.

### (c) Chiller unit installation in K111

After thorough analysis, a Chiller unit was installed for maintaining the constant temperature of cooling water and motor winding. The ammonia outlet of the cooler is connected to the ammonia receiver located at urea plant. By this system, the CW temperature is maintaining steadily at 30 °C without much fluctuations. Hence, the plant load reduction due to K111 winding temperature variation is avoided and we are able to maintain the plant load at maximum.

## 19. NATIONAL FERTILIZERS LIMITED

Name of The company	Preset Energy Norms (Gcal/MT)	Actual Energy Consumption (Gcal/MT)		Energy cost (₹ crores)		Energy cost as percentage of cost of production		Cost of Production (₹ crores)	
		2012-13	2011-12	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
NATIONAL FERTILIZERS LIMITED									
Nangal	9.517	9.493	9.436	1586	1525	91.41	90.81	1735	1679
Bathinda	10.221	9.867	9.826	1078	1480	91.36	92.19	1180	1606
Panipat	9.654	10.044	10.009	1099	1432	89.13	91.80	1233	1560
Vijaipur-I	5.952	5.774	5.838	1011	793	94.75	92.71	1067	855
Vijaipur-II	5.712	5.618	5.439	1021	857	97.33	92.22	1049	930

- (a) The energy saving and Urea Capacity Enhancement Projects at Vijaipur-I & II units were undertaken by the company and commissioned during 2012-13.
- (b) Changeover of Feedstock from Fuel Oil to Natural

Gas projects were commissioned at Bathinda and Panipat units in January 2013. The projects will result in reduction in energy consumption and usage of cheaper raw material.

## 20. Hindustan organic chemicals limited (HOCL)

Name of the Unit	Product	Energy Input	Consumption of Energy (₹ Crore)		Energy Cost as % of production cost		Consumption of Energy per unit of production MKcal/MT	
			2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Kochi Unit	Phenol & Acetone	Fuel	56.83	57.24	15.69	15.81	5.975	5.458
		Power	12.85	10.82	3.53	2.99	0.918	0.815
	H <sub>2</sub> O <sub>2</sub>	Fuel	2.50	2.33	8.62	8.11	0.652	0.611
		Power	2.65	2.25	9.14	7.82	0.479	0.488
Rasayani Unit							Kwh/MT	Kwh/MT
	Formaldehyde		3.73	2.94	12.65	10.65		
	Nitrobenzene		0.54	0.30	0.54	0.46		
	Aniline		2.52	2.87	1.11	2.74		
	Overall unit						287.896	401.341

The following energy conservation measures were undertaken by the company during the year 2012-13.

**Rasayani Unit:** Commissioning of new Apex metering system at 220 KV switchyard, in December 2012, at cost of ₹ 1.26 Crores. With this reduction in contract demand from 14 MVA to 9 MVA and minimum chargeable demand has also come down to 4.5 MVA from 7 MVA.

**Kochi Unit:** Installed 5 star rated ceiling fans-15 Nos., 25 ordinary regulators have been replaced electronic type regulators and 19 new steam traps were installed.

## 21. Bharat heavy electricals limited (BHEL)

The energy conservation is an important thrust area in BHEL and various initiatives relating to Energy Conservation, Energy Efficiency were undertaken proactively as brought under.

- (a) National Energy Conservation Day was celebrated across the company on 14<sup>th</sup> December. Various

activities related to ENCON were organized for awareness generation of employees.

- (b) More than 1200 Turbo Ventilators were installed at manufacturing units.  
(c) Energy Audit recommendations were implemented at the units from last Energy Audit reports.  
(d) Energy Audit was conducted at HEP-Bhopal & CFP-Rudrapur units.

## 22. Heavy Engineering Corporation Limited (HEC)

Energy Input	Consumption of energy ( ₹ Crore)		Energy cost as percentage cost of production (%)	
	2012-13	2011-12	2012-13	2011-12
Electricity	27.62	24.89	4.75%	4.89%
Coal	26.09	20.49	4.49%	3.95%
Fuel Oil	0.53	1.23	0.09%	0.23%

The major energy conservation measures initiated/taken are as under:

- (a) Switching off Power transformers located in Plant on Sundays and holidays.  
(b) Switching off unloaded transformers to save power.  
(c) Replacement of MG Sets by use of Static Transformers and Rectifiers.  
(d) Campaign to Switching off unwanted lights, fans and idle machines.  
(e) Reduction in heat cycle time for melting furnaces by using proper mix of scrap. In addition, upgradation of Electric Arc Furnaces, Heating and Heat Treatment Furnaces has been initiated, which will help in further reduction in cycle time  
(f) 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.

## 23. Bharat dynamics limited (BDL)

Name of the Company	Consumption of energy ( ₹ Crore)		Energy cost as percentage cost of production		Consumption of energy per unit of production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	12.73	9.06	1.08%	0.85%	Not Applicable	

The company continued to emphasize on energy conservation and some of the measures adopted by BDL for energy conservation include the following:

- (a) Installed Voltage optimizers for saving energy in lighting circuits.  
(b) Replaced existing 125 watts MVHP with energy efficient 70W lamp units in the same fitting.  
(c) Replaced existing 250 Watt High bay MVHP with energy efficient 150 MH lamp units in the same fitting.  
(d) Replaced existing 400 Watt High bay MVHP with energy efficient pulse stat 320W MH lamp units in the same fitting.  
(e) Installation of ball cocks to avoid over flow of water from cooling towers.

## 24. Oil and natural gas corporation limited (ONGC)

Consumption of energy (₹ Crore)		Energy cost as percentage cost of production		Consumption of energy per unit of production (eq. KWH/MTOE)	
2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
1097.00	960.00	1.809	1.817%	35.52	30.53

The details of Energy Conservation Efforts by ONGC in 2012-13 are as under:

- (a) ONGC has saved ₹428 crore by adopting different energy conservation measures in its different installations in comparison to last year's ₹409 crore.
- (b) Training on Energy Conservation Techniques has been started throughout ONGC for Non-executives. A total of 203 training programs were organized to train 5536 non-executives.
- (c) Implemented energy conservation project, in Uran Plant, titled as "Recovery of Additional Rich Gas from CSU through Stripping By Rich Gas". The saving is ₹5.9 Crores per year.
- (d) Implemented energy conservation project, in Hazira Plant, titled as "Provision to make up LP Gas to KRIB-HCO gas from MP Header instead of HP Header with an aim to increase capacity utilization of LPG Plant". The expected saving will be ₹21 Crores per year.

## 25. Artificial Limbs Manufacturing Corporation Limited

Name of Company	Consumption of Energy (₹ Crore)		Energy cost as percentage of cost of production		Consumption of energy per unit of production value	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
ALIMCO	1.14	1.10	0.86%	1.54%	0.0086	0.0134

## 26. BHARAT PUMPS AND COMPRESSORS LTD

Energy inputs	Consumption of Energy ₹ Crore		Energy cost as percentage of cost of production		Consumption of Energy per unit of production (Per rupee production)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	2.59	2.48	1.69%	1.56 %	0.0169	₹0.0156
Furnace Oil	1.22	3.15	0.80%	1.99 %	0.0080	₹0.0199

As part of the energy conservation measures undertaken during the year 2012-13, subsequent to Energy Audit conducted in the year 2007 by Academy of Conservation of Energy, Vadodara, various energy conservation methods as suggested by the agency were implemented and the power factor was maintained above 0.90 during 2012-13.

- (b) Solar water heaters have already been installed in all hostels and guest houses. Approximately 378 ACs are running in the office complex and guest houses, out of which 205 ACs has been changed with the star rated ACs to increase the energy efficiency.

Following actions are also planned/under implementation towards energy conservation.

## 27. THDC India Limited

The Energy Conservation Measures taken by THDCIL during 2012-13 area as under:

- (a) Energy audit of residential and office complex was got conducted through M/s Petroleum Conservation Research Association. Recommendations of energy auditor are in the process of implementation.
- (b) It is planned to replace the old ceiling fans with Five star rated ceiling fans which will reduce the energy consumption by 16032 units per year approximately.

## 28. Bharat Electronics Ltd.

Energy Input	Consumption of Energy ( ₹ crore)		Energy cost as Percentage cost of Production		Consumption of energy per unit of Production ( ₹)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	26.77	24.76	0.38%	0.41%	381.16	399.23
HSD Oil	1.98	1.66	0.03%	0.03%	28.24	26.71
Petrol	0.93	0.57	0.01%	0.01%	13.23	9.19
LPG	1.17	0.86	0.01%	0.02%	16.72	13.88
Total (all forms)	30.86	27.85	0.45%	0.46%	439.34	449.02

The details of major energy conservation measures undertaken during the year 2012-13 are as under:

- (a) Introduction of PLC based automation system for optimization of air compressor operation and energy efficiency in Gas plant.
- (b) Arresting air leakages by periodic monitoring and optimizing compressed air system operation.
- (c) Installation of screw air compressor with variable feed controllers for optimization of energy consumption.
- (d) Lighting management system and daylight harvesting at new buildings.
- (e) Installation of LED Street lights with twilight sensors and LED indoor lighting for energy saving.

## 29. Hindustan Aeronautics Ltd.

Name of the Company	Consumption of Energy ( ₹ crore)		Energy cost as Percentage cost of Production		Consumption of energy per unit of Production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
HAL	135.87	115.12	0.97	0.97	0.41	0.35

The company implemented energy conservation measures like controlled lighting, use of solar water heaters, usage of compact fluorescent lamps, capacitor banks, replacement of old machineries/compressors with energy efficient ones etc. during the year.

## 30. BEML Limited

Energy Input	Consumption of Energy ( ₹ Crore)		Energy cost as percentage of Cost of production	
	2012-13	2011-12	2012-13	2011-12
Electricity	25.15	25.15	1.32%	1.39%
Coal	Nil	Nil	NA	NA
Furnace Oil	0.21	0.22	0.01%	0.01%
Other	0.75	0.95	0.04%	0.05%
Total	26.11	26.32	1.37%	1.46%

Some of the major energy conservation measures taken during the year 2012-13 by the company include the following:

- (a) Replacement of 40 Inverter welding sets (18 kw) in place of old motor generator welding set ( 30 kw).
- (b) Introduction of two 5000 litres capacity solar water heating system in Workers
- (c) Canteen for pre-heating of water at 60 degrees centigrade.
- (d) Introduction of 150 w metal halide high bay fitting for street lights in place of 800W HPMV lamp at various place in the unit premises.
- (e) Introducing 150 KVA energy saver units for major assembly hanger high bay lights.

### 31. Mazagon Dock Limited

Name of Company	Consumption of Energy ( ₹ Crore)		Energy cost as percentage of Cost of production		Consumption of energy per unit of production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
MDL	17.083	11.048	0.608%	0.421%	0.006	0.004

The energy conservation measures taken in the year 2012-13 are as follows:

- (a) Replacement of old ACs with new Star Rated Energy Efficient ACs.
- (b) Replacement of old welding rectifiers with Inverter based Welding rectifier.
- (c) Upgradation of Submarine Division EOT Cranes with Variable Voltage Variable Frequency (VVVF) drives.
- (d) Maintained the Power Factor above 0.97 to get incentive in the energy bill from power supply authority M/s. BEST.

### 32. Garden Reach Shipbuilders & Engineers Ltd.

Energy Input	Consumption of Energy ( ₹ Crore)		Energy cost as percentage of Cost of production		Consumption of energy per unit of production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity and fuel Oil	10.9229	8.1679	0.78	0.72	4122.4	3239.22s

The energy conservation measures taken in the year 2012-13 by the company are as follows:

- (a) Shifting of Load on Transformer No. 3 of Central Substation to Transformer No. 1 and 2 which in turn saved the no load losses of Transformer No. 3
- (b) Replacement of 40 Watt FTLs with 36 Watt FTLs.
- (c) Replacement of 499 Nos. 40 Watt FTLs with T-5 Type (28 Watt) FTLs.
- (d) Replacement of 400 Watt Discharge Lamps (HPMV) by 250 Watt Metal Halide Lamps at Ship Building Shop.
- (e) Implementation of 50 nos. Energy Efficient LED Luminaires in place of CFL Luminaires.

### 33. KIOCL Limited

Energy Input	Consumption of Energy ( ₹ Crore)		Energy Cost as percentage of cost of production		Consumption of energy per unit of production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Electricity	79.49	103.09	12.56	7.68	66.56	70.62

The following energy conservation initiatives were taken by the company during the year 2012-13:

- (a) Water is being sourced through gravity pipe line from Kudremukh.
- (b) Innovative and latest energy saving products/systems are used/followed to conserve energy like fan less cooling towers, inductions/LED lamps, solar lights, compact lamps, introduction of VFDs, downsizing of motors wherever possible, replacements of old conventional motors, use of low sulphur oil at CPP.
- (c) Introduction of new filter system for reducing moisture content in ore resulting in reduced consumption of power for Pellet production.
- (d) Energy audits are being carried out at regular intervals to introduce energy saving methods.

### 34. Central Electronics Ltd.

Name of Company	Consumption of Energy (Rs. in crore)		Energy Cost as percentage of cost of production		Consumption of Energy per unit of Production	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Solar PV Modules	1.15	1.20	1.23	1.30	1441173	2182643
Axle conuters	0.18	0.13	0.73	0.60	227011	228999
Phase Shifters	0.44	0.33	2.49	1.30	537635	593965

The following major energy conservation measures taken during the year 2012-13:

- 75 W street light being replaced by 30 W LED light.
- Use solar power in ED & SPV-M divisions for day to day consumption.
- Power factor is being improved by improving performance of capacitor bank.

### 35 Scooters India Ltd.

Name of the Company	Consumption of Energy (Power & Fuel) (Rs. Crore)		Energy Cost as percentage of cost of production		Consumption of Energy per unit of Production (in Rs.)	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Scooters India Ltd.	4.27	3.66	2.02	1.51	2701	2090

The company took following measures for conservation of energy.

#### Compressors

- Stopping wastage of compressed air.
- Periodic servicing of suction filters, moisture traps, unloader and delivery valves.

#### Water

- Monitoring of control of water wastage.
- Recycling of cooling water.

#### Power

- Control of maximum demand in peak hours.
- Monitoring and control of power factor on regular basis and power factor improved by 0.01 approx.
- Monitoring and control of electricity consumption in different sections of the plant.
- By using low consumption accessories and equipment.
- Full capacity utilization of ovens and furnaces.

### 36 Indian Drugs & Pharmaceuticals Ltd.

Name of Unit	Consumption of Energy (Rs. In Crore)		Energy Cost as percentage of cost of production	
	2012-13	2011-12	2012-13	2011-12
Rishikesh Plant	1.215	1.145	6.04	6.34
Gurgaon Plant	0.528	0.495	6.92	5.368
Chennai Plant	0.5105	0.4168	2.80	3.68

In order to conserve energy efficient lamps/fitting CFL are being installed in place of old fitting/lamps and working of the plant is being aligned for non-peak hours to reduce the cost of electrical energy.

### 37 Braithwaith & Co. Ltd.

Name of the Company	Consumption of Energy (Rs. In Crore)		Energy Cost as percentage of cost of production		Consumption of Energy per unit of Production*	
	2012-13	2011-12	2012-13	2011-12	2012-13	2011-12
Braithwaith & Co. Ltd	7.3953	5.8046	2.6578	2.3207	0.6209	0.4805

The following energy conservation measures were taken during the year 2012-13 at various units of the company:

#### At Clive Works & Victoria Works:

1. PF has been improved in CW from 96% to 98% not only to save energy but also to gain rebates from monthly power bill.
2. Air compressors are overhauled as a part of regular maintenance programme. A lot of line leakages have been arrested resulting in saving of electrical energy.
3. Replacement of conventional chokes by open type chokes.
4. 10 New earth pits have been installed to increase system safety & stability.
5. Replacement of 100W lamp fitting with lower rating CFL lamps.
6. Optimization of process parameter to optimize power consumption.
7. Replacement of 500W halogen lamps at selected location with 70W and 150W metal halide lamps.
8. Strict vigil and control of wasteful expenditure of power in running AC Machines, fans & lights through notification and awareness campaigns.

#### At Angus Works:

1. Energy audit is being carried out by external agency and suggestions given by them are being implemented
2. Increased power factor, installation of automatic power meter panel was done resulting in benefits of electric unit.
3. Old used burnt oil being utilized for lubrication of manually operated material handling equipment's.
4. Energy efficiency lamps for lighting purpose are being used.

### 38. Karnataka Antibiotics and Pharmaceuticals Ltd.

Consumption of Energy (Rs. Crore)		Energy Cost as percentage of cost of production		Consumption of Energy per unit of Production		
2012-13	2011-12	2012-13	2011-12	Particulars	2012-13	2011-12
3.04	2.68	1.22%	1.21%	Electricity in units	147	150
				Furnace Oil in Ltrs.	4.70	4.20

The energy conservation measures undertaken during the year 2012-13 are as under:

1. Compact Fluorescent Lamps (CFL) installed at DPP-II an NP sections, resulting in power saving of 500 watts/hour.
2. Light Emitting Diodes (LED) Lamps trial was taken for 72 watts in place of 250 watts Sodium Vapour Lamps, resulting in power saving of 178 watts/hour.
3. DPP-II Inspection Machine 40 watts motor is incorporated in place of 250 watts resulting in power saving of 210 watts/hour.
4. For inspection Table in SVP section 40 watts Tube Lights replaced with energy efficient lamps resulting in savings of 50%.

## Chapter - 5

# 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 2012-13, as many as 140 CPSEs out of the 229 operating CPSEs either had foreign exchange earnings (FEE) or foreign exchange expenditure (FEE) (Annex 5.1). As many as 35 CPSEs were net foreign exchange earners (Annex 5.1). Out of these 35 CPSEs, 9

CPSEs, namely Bharat Heavy Electricals Ltd , Air India Ltd. , National Aluminium Company Ltd. , Airports Authority of India Ltd., IRCON International Ltd. , RITES Ltd., Indian Rare Earths Ltd. India Infrastructure Finance Co. Ltd. and Air India Charters Ltd. earned net foreign exchange of more than ₹100 crore during 2012-13.

## 5.1 Foreign Exchange Earnings

Table 5.1 below shows the (17) CPSEs that had gross foreign exchange earnings of more than ₹1000 crore, during 2012-13. Out of these 17 CPSEs, 6 CPSEs namely, Bharat Heavy Electricals Ltd., Air India Ltd., National Aluminium Company Ltd., IRCON International Ltd., Airports Authority of India Ltd and Air India Charters Ltd. have been net foreign

exchange earners. IOC, BPCL, HPCL, BHEL, SAIL and Air India Charters have shown reduction in their foreign exchange earnings during 2012-13. Oil Marketing Companies (OMCs) had foreign exchange expenditure more than their foreign-exchange earnings.

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

(₹ In crores)

Sl.No.	Cpse	2012-13	2011-12	Change Over The Previous Year(%)
1.	Mangalore Refinery & Petrochemicals Ltd.	32179.85	23418.32	37.41
2.	Indian Oil Corporation Ltd.	18558.61	19828.74	-6.41
3.	Bharat Petroleum Corpn. Ltd.	18455.61	19315.61	-4.45
4.	Bharat Heavy Electricals Ltd.	12356.59	14419.15	-14.30
5.	Air India Ltd.	9528.45	9528.45	0.00
6.	Ongc Videsh Ltd.	7859.42	8102.97	-3.01
7.	Oil & Natural Gas Corporation Ltd.	7472.33	6315.27	18.32
8.	Hindustan Petroleum Corpn. Ltd.	6416.82	7782.48	-17.55
9.	Shipping Corporation Of India Ltd.	4258.94	0	-
10.	National Aluminium Company Ltd.	3377.50	2557.78	32.05
	P E C Ltd.	3027.11	1075.99	181.33
11.	M M T C Ltd.	3000.67	2069.92	44.97
12.	Ircon International Ltd.	1996.79	1862.44	7.21
13.	State Trading Corpn. Of India Ltd.	1573.12	303.46	418.39
14.	Airports Authority Of India Ltd.	1375.77	1319.51	4.26
15.	Steel Authority Of India Ltd.	1158.23	1230.1	-5.84
16.	Air India Charters Ltd.	1090.22	1151.81	-5.35

### 5.1.1 Sources of Foreign Earnings

Export of goods & merchandise, and other income are the major sources of foreign exchange earnings of CPSE's. Export of merchandise was the major source of foreign exchange earnings in both the years 2010-11 and 2011-12. Its

share in total earnings, reduced from 86.59% of the total in 2011-12 to 82.24% of the total in 2012-13 (Table 5.2). The share of Royalty, Know-How, Consultancy Fee and Fee for Professional Services as sources of foreign exchange also reduced from 1.19 % in 2011-12 to 1.16 % in 2012-13.

**Table 5.2**  
**Foreign Exchange Earnings of CPSEs**  
**(2012-13 and 2011-12)**

(₹ in crore)

Sl. No	Items	2012-13	2011-12	(%) Change over the previous year
(i)	Export of Goods on FOB basis	113610.51 (82.24)	110728.22 (86.59)	2.6
(ii)	Royalty, Know-how, Professional and Consultancy fee	1597.05 (1.16)	1524.38 (1.19)	4.77
(iii)	Interest and Dividend	302.57 (0.22)	243.93 (0.19)	24
(iv)	Other Income	22640.22 (16.39)	15383.61 (12.03)	47.2
	Grand Total (i) to (iv)	138150.35 (100)	127880.14 (100)	8.03

Note: Figure in brackets are as percentage of total

### 5.2 Foreign Exchange Expenditure

Table 5.3 shows the (25) CPSEs that had gross foreign exchange expenditure of more than ₹ 1000 crore during 2012-13. In terms of growth / change in foreign exchange

expenditure during 2012-13 over 2011-12, there was a general reduction in the foreign exchange expenditure by 11.90% over last year. As a whole these 25 CPSEs have shown a reduction of 12.40% in the foreign exchange expenditure during 2012-13 in comparison to 2011-12 (Table 5.3).

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

(₹ in crore)

Sl. No.	Cpse Name	2012-13	2011-12	Change Over The Previous Year (%)
1	Indian Oil Corporation Ltd.	212775.80	240481.95	-11.52
2	Hindustan Petroleum Corpn. Ltd.	112477.70	101312.57	11.02
3	Bharat Petroleum Corpn. Ltd.	81893.37	75060.25	9.10
4	Mangalore Refinery & Petrochemicals Ltd.	56137.41	47805.88	17.43
5	Oil & Natural Gas Corporation Ltd.	37630.93	40169.86	-6.32
6	M M T C Ltd.	20334.56	60993.97	-66.66
7	State Trading Corpn. Of India Ltd.	16339.93	18235.42	-10.39
8	Steel Authority Of India Ltd.	15088.32	17887.37	-15.65
9	Hindustan Aeronautics Ltd.	8839.53	5803.34	52.32
10	Container Corporation Of India Ltd.	8191.81	7646.44	7.13
11	Ongc Videsh Ltd.	7896.56	9250.85	-14.64

12	Bharat Heavy Electricals Ltd.	7184.92	10021.32	-28.30
13	M S T C Ltd.	6612.91	1427.48	363.26
14	P E C Ltd.	6580.64	7549.74	-12.84
15	Air India Ltd.	4752.35	5183.27	-8.31
16	Gail (India) Ltd.	4695.29	6423.6	-26.91
17	Shipping Corporation Of India Ltd.	4332.53	4258.09	1.75
18	Rashtriya Ispat Nigam Ltd.	4262.26	5569.86	-23.48
19	Handicrafts & Handloom Exports Corp. Of India Ltd.	3866.40	12107.96	-68.07
20	Chennai Petroleum Corporation Ltd.	3849.68	35919.9	-89.28
21	Mazagon Dock Ltd.	2267.53	1750.88	29.51
22	Power Grid Corporation Of India Ltd.	1955.80	2366.38	-17.35
23	Ntpc Ltd.	1768.55	1481.97	19.34
24	Rashtriya Chemicals And Fertilizers Ltd.	1564.34	1868.59	-16.28
25	Ircon International Ltd.	1166.04	1440.13	-19.03

BHEL, MMTC, SAIL STC, RCFL, IRCON, PGCIL, Handicrafts & Handloom Exports Corporation of India Ltd, RINL, Air India Ltd, PEC, CPCL, Indian Oil Corporation, GAIL (India) Ltd, ONGC Videsh and ONGC have shown reduction in foreign expenditure as compared to last year.

The increase in foreign expenditure of other Oil Marketing Companies (HPCL, BPCL, and MRPL) is also modest. The major increase in foreign expenditure (more than 20%) is shown by MSTC, Hindustan Aeronautics and Magzaon Dock Ltd.

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**  
**(2012-13 and 2011-12)**

( ₹ in crore)

Particulars		2012-13	2011-12	Change over the year (%)
<b>(a)</b>	<b>Imports (CIF Basis)</b>			
<b>(i)</b>	Raw materials/Crude oil	447100.84 (86.5)	495564.55 (81.91)	-9.78
<b>(ii)</b>	Stores, Spares & Components	11785.35 (2.28)	12816.65 (2.12)	-8.05
<b>(iii)</b>	Capital Goods	58015.13 (11.22)	96637.74 (15.97)	-39.97
	<b>Sub Total (a)</b>	516901.32 (79.98)	605018.94 (82.48)	-14.56
<b>(b)</b>	<b>Expenditure on account of :</b>			
<b>(i)</b>	Royalty and Consultancy fee	21808.05 (16.86)	23222.39 (18.07)	-6.09
<b>(ii)</b>	Interest payment	4431.02 (3.43)	3056.87 (2.38)	44.95
<b>(iii)</b>	Others	103121.73 (79.72)	102239.59 (79.55)	0.86
<b>(iv)</b>	Dividend remitted in Foreign Currency	0.11 (0)	4.59 (0)	-97.6
	<b>Sub Total (b)</b>	129360.91 (20.02)	128523.44 (17.52)	0.65
	<b>Grand Total (a + b)</b>	646262.23 (100)	733542.38 (100)	-11.9

Note: Figure in brackets are as percentage of total

The share of 'raw materials' / crude oil continued to claim the largest share (around 86.5%) of gross foreign exchange expenditures in both the years of 2011-12 and 2012-13. 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 and 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 ₹1000 crore), during 2010-11, are shown at Annex -5.2.

#### 5.3.2 Foreign Investments by CPSEs

Foreign investment comprises off-shore investment by CPSEs through establishment of Indian subsidiaries abroad as well as joint ventures (JVs) and mergers and acquisitions (M&A). Several CPSEs have set up subsidiaries abroad for marketing their products, for procuring raw materials and for consolidating their international operations.

In this regard CIL has entered into MoU regarding formation of Special Purpose Vehicle (SPV) namely International Coal Ventures Pvt. Ltd. (ICVL) through joint venture involving CIL/ SAIL/ RINL/ NTPC and NMDC for acquisition of coal properties abroad.

##### 5.3.2.1 Policy on Acquisition of Raw Materials Overseas.

The 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

- 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.

The following actions have been taken by DPE in this regard.

- (i) Circulation of the approved policy to all stakeholders.

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 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 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 ₹ 1.5 crore per annum to be provided to DPE.

- (ii) Issuance of guidelines prescribed by Ministry of External Affairs (MEA) and its advisory to its Missions abroad after consultations with MEA.
- (iii) Constitution of Coordinating Committee of Secretaries after approval of Cabinet Secretariat.
- (iv) Allocation of financial resources for running the separate Cell.

Initiating the process of recruitment of manpower for separate cell and release of advertisement in newspapers inviting applications and holding of selection interviews.

## 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 'net foreign exchange spender':

### 5.4.1 Bharat Heavy Electricals Limited (BHEL)

BHEL attained a foreign exchange earnings of ₹12356.59 in 2012-13 crore against the foreign exchange earnings of ₹ 14419.15 crore in 2011-12, decrease of ₹ 2062.56 crore. The foreign exchange expenditure, however, stood at ₹ 7184.92 crore in the financial year 2012-13 and was ₹ 10021.32 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ 5171.67 crore during 2012-13.

BHEL has six Joint ventures out of which two are with foreign partners namely "BHEL GE Gas Turbine Services Ltd." with GEPM, Mauritius and "Power Plant Performance Improvement Ltd." with Siemens AG of Germany.

### 5.4.2 Air India Ltd.

Air India Ltd attained a foreign exchange earnings of ₹ 9528.45 crore in 2012-13 crore against the foreign exchange earnings of ₹ 9528.45 crore in 2011-12, and has a increase/decrease of ₹ Nil crore. The foreign exchange expenditure, however, stood at ₹4752.35 crore in the financial year 2012-

13 and was ₹ 5183.27 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹4776.1 crore during 2012-13.

The company provides domestic and international air transport services within India as also across the globe.

### 5.4.3 National Aluminum Company Ltd. (NALCO)

National Aluminum Company Ltd. attained a foreign exchange earnings of ₹ 3377.5 crore in 2012-13 crore against ₹ 2557.78 crore in 2011-12, an increase of ₹ 819.72 crore. The foreign exchange expenditure, however, stood at ₹ 554.14 crore in the financial year 2012-13. Therefore, net of foreign exchange expenditure was ₹ 2823.36 crore during 2012-13.

NALCO is the 1st Company in India in the aluminium sector to be registered with LME in May 1989.

### 5.4.4 IRCON International Ltd (IRCON)

IRCON International Ltd attained a foreign exchange earnings of ₹ 1996.79 crore in 2012-13 crore against ₹ 1862.44 crore in 2011-12, an increase of ₹ 134.35 crore. The foreign exchange expenditure, however, stood at ₹ 1166.04 crore in the financial year 2012-13 against ₹ 1440.13 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ 830.75 crore during 2012-13.

The Company started its operations in 1977-78 and entered the international market in a big way with a major breakthrough in Iraq followed by Algeria. Presently, IRCON is executing projects abroad in Malaysia, Sri Lanka, Bangladesh, and Algeria. IRCON has five Joint ventures out of which one is with foreign partner namely Companhia Dos Caminhos De Ferro Da Beira (CCFB), in Mozambique -- with 25% shareholding

### 5.4.5 Airport Authority of India Ltd. (AAI)

Airport Authority of India Ltd. attained a foreign exchange earnings of ₹ 1375.77 crore in 2012-13 crore against ₹ 1319.51 crore in 2011-12, an increase of ₹ 56.26 crore. The foreign exchange expenditure, however, stood at ₹ 182.43 crore in the financial year 2012-13. Therefore, net of foreign exchange expenditure was ₹ 1193.34 crore during 2012-13.

The major sources of revenue of AAI are Route / Terminal Navigational Facilities, Landing & Parking, Cargo Handling and Passenger Services.

#### **5.4.6 Air India Charters Ltd.**

Air India Charters Ltd. attained a foreign exchange earnings of ₹ 1090.22 crore in 2012-13 crore against ₹ 1151.81 crore in 2011-12, decrease of ₹ 61.59 crore. The foreign exchange expenditure, however, stood at ₹ 974.72 crore in the financial year 2012-13. Therefore, net of foreign exchange expenditure was ₹ 115.5 crore during 2012-13.

The company has set up a low cost service namely 'Air India Express' under its management from Kerala to certain points in the Gulf which is considered to be advantageous to millions of people working abroad especially in the Gulf & Middle East and South East Asia.

#### **5.4.7 Indian Rare Earth Ltd. (IREL)**

IREL attained a foreign exchange earnings of ₹ 169.62 crore in 2012-13 crore against ₹ 200.76 crore in 2011-12, a reduction of ₹ 31.14 crore. The foreign exchange expenditure, however, stood at ₹ 3.35 crore in the financial year 2012-13. Therefore, net of foreign exchange expenditure was ₹ 166.27 crore during 2012-13.

IREL also has been a significant earner of valuable foreign exchange for the nation and has been exporting its products to various countries like China, Japan, Germany, UAE and Malaysia.

#### **5.4.8 Mangalore Refinery and Petrochemicals Limited (MRPL)**

MRPL attained a foreign exchange earning of ₹ 32179.85 in 2012-13 crore against the foreign exchange earning of ₹ 23418.32 crore in 2011 -12, an increase of ₹ 8761.53 crore. The company achieved the highest ever export turnover during the year 2012-13 by exporting products like Motor Spirit (MS), Naphtha, Mixed Xylene, High Speed Diesel (HSD), Jet fuel and Fuel Oil (FO). MRPL continues to have the term export contract for supply of petroleum products to

Mauritius in collaboration with the State Trading Corporation (STC), Mauritius. In the global competitive market, MRPL has secured a place by exporting the petroleum products and continues to explore opportunities for its growth. The foreign exchange expenditure, however, stood at ₹ 56137.41 crore in the financial year 2012-13 and was ₹ 47805.88 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 23957.56 crore during 2012-13.

#### **5.4.9 PEC Ltd**

PEC Ltd attained a foreign exchange earnings of ₹ 3027.11 crore in 2012-13 crore against the foreign exchange earnings of ₹ 1075.99 crore in 2011 -12, an increase of ₹ 1951.12 crore. The foreign exchange expenditure, however, stood at ₹ 6580.64 crore in the financial year 2012-13 and was ₹ 7549.74 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 3553.53 crore during 2012-13.

PEC is one of the pioneering enterprises providing services in the field of export and import of bulk items viz. agricultural commodities, industrial raw materials, bullion and domestic trade and export of engineering equipment, projects etc.

#### **5.4.10 Steel Authority of India Ltd. (SAIL)**

SAIL attained a foreign exchange earnings of ₹ 1158.23 crore in 2012-13 crore against the foreign exchange earnings of ₹ 1230.1 crore in 2011 -12, decrease of ₹ 71.87 crore. The foreign exchange expenditure, however, stood at ₹ 15088.32 crore in the financial year 2012-13 and was ₹ 17887.37 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 13930.09 crore during 2012-13.

SAIL offers 50 mild, special and alloy steel products in 1000 qualities and 5000 dimensions. SAIL's products basket comprises Flat Products, Long products, Rails and Pips including branded products such as SAIL-TMT & SAIL JYOTI.

#### **5.4.11 Hindustan Petroleum Corporation Limited (HPCL)**

HPCL attained a foreign exchange earnings of ₹ 6416.82 crore in 2012-13 crore against ₹7782.48 crore in 2011-12, decrease of ₹ 1365.66 crore. The foreign exchange expenditure, however, stood at ₹112477.7 crore in the financial year 2012-13 against ₹ 9528.45 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 106060.84 crore during 2012-13.

#### **5.4.12 Oil and Natural Gas Corporation Ltd (ONGC)**

ONGC attained a foreign exchange earnings of ₹ 7472.33 crore in 2012-13 crore against ₹ 6315.27 crore in 2011-12, an increase of ₹ 1157.06 crore. The foreign exchange expenditure, however, stood at ₹ 37630.93 crore in the financial year 2012-13 against ₹ 40169.86 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 30158.6 crore during 2012-13.

ONGC has five foreign subsidiaries wholly owned through OVL, namely ONGC Nile Ganga BV Netherland, ONGC Narmada Ltd. , ONGC Amazon Alaknanda Limited, Jarpeno Ltd. and Carabobo One AB.

#### **5.4.13 Bharat Petroleum Corporation Ltd (BPCL)**

BPCL Ltd attained a foreign exchange earnings of ₹ 18455.61 crore in 2012-13 crore against ₹ 19315.61 crore in 2011-12, decrease of ₹ 860 crore. The foreign exchange expenditure, however, stood at ₹81893.37 crore in the financial year 2012-13 against ₹ 75060.25 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 63437.76 crore during 2012-13.

#### **5.4.14 Handicrafts and Handloom Exports Corporation of India**

Handicrafts and Handloom Corporation of India's attained a foreign exchange earnings of ₹ 36.14 crore in 2012-13 crore. The foreign exchange expenditure, however, stood at ₹ 3866.4 crore in the financial year 2012-13 against ₹ 12107.96 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 3830.26 crore during 2012-13.

HHEC is engaged in export & domestic sales of handicrafts, handlooms products, ready-to-wear garments (including manufacturing), carpets, sales of gold and silver jewellery / articles and import & domestic sale of bullion.

#### **5.4.15 MMTC Ltd (MMTC)**

MMTC Ltd. attained a foreign exchange earnings of ₹ 3000.67 crore in 2012-13 crore against ₹ 2069.92 crore in 2011-12, an increase of ₹ 930.75 crore. The foreign exchange expenditure, however, stood at ₹ 20334.56 crore in the financial year 2012-13 against ₹ 40659.41 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ 17333.89 crore during 2012-13.

The company is one of India's largest exporter of Minerals, leading exporters/importer of Agri commodities, major importer / supplier of Metals including Gold & Silver and a major player in the Coal and hydrocarbons imports by the country.

#### **5.4.16 Indian Oil Corporation Ltd. (IOC)**

IOCL attained a foreign exchange earnings of ₹ 18558.61 crore in 2012-13 crore against ₹ 19828.74 crore in 2011-12, decrease of ₹1270.13 crore. The foreign exchange expenditure, however, stood at ₹ 212775.8 crore in the financial year 2012-13 against ₹ 240481.95 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-) 194217.21 crore during 2012-13.

The company has 7 subsidiary companies of which 5 are outside the country and has 19 JVs in the field of Petroleum and Petrochemicals.

#### **5.4.17 ONGC Videsh Ltd.**

ONGC Videsh Ltd. attained a foreign exchange earnings of ₹ 7859.42 crore in 2012-13 crore against ₹ 8102.97 crore in 2011-12, decrease of ₹ 243.55 crore. The foreign exchange expenditure, however, stood at ₹ 7896.56 crore in the financial year 2012-13 against ₹ 9250.85 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹ (-)

37.14 crore during 2012-13.

ONGC Videsh is engaged in prospecting for and acquisition of oil and gas acreages outside India for exploration, development and production of oil and gas. As on 31<sup>st</sup> March, 2013, ONGC Videsh has participation either directly or through wholly owned subsidiaries/ joint venture companies in 32 E&P projects in 16 countries namely Vietnam (2 projects), Russia (2 projects), Sudan (2 projects), South Sudan (2 projects), Iran (1 project), Iraq (1 project), Libya (1 project), Myanmar (2 projects), Syria (2 projects), Cuba (1 project), Brazil (2 projects), Nigeria (1 project), Colombia (8 projects), Venezuela (2 projects), Kazakhstan (1 project) and Azerbaijan (2 projects) and has been actively pursuing more opportunities across the globe.

#### **5.4.18 Shipping Corporation of India Ltd.**

Corporation of India Ltd. attained a foreign exchange earnings of ₹4258.94 crore in 2012-13 crore against ₹ NIL crore in 2011-12, an increase of ₹4258.94 crore. The foreign exchange expenditure, however, stood at ₹4332.53 crore in the financial year 2012-13 against ₹ 4258.09 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹(-) 73.59 crore during 2012-13.

The Company is engaged in providing sea transportation services with the help of container ships, offshore supply vessels, bulk carriers, crude oil tankers, phosphoric acid / chemical / LPG / Ammonia carriers, product carriers, anchor handling & towing ships and passenger cum cargo vessels both in India and all over the world.

#### **5.4.19 State Trading Corporation of India Ltd.**

State Trading Corporation of India Ltd. attained a foreign exchange earnings of ₹ 1573.12 crore in 2012-13 crore against ₹303.46 crore in 2011-12, an increase of ₹ 1269.66 crore. The foreign exchange expenditure, however, stood at ₹16339.93 crore in the financial year 2012-13 against ₹ 18235.42 Crore in the previous year. Therefore, net of foreign exchange expenditure was ₹(-) 14766.81 crore during 2012-13.

The Corporation exports / imports a diverse range of items to / from countries all over the world. Its export basket includes wheat, rice, castor oil, tea, jute goods, sugar, other agro products, chemicals, pharmaceuticals, steel raw materials, iron ore, light engineering goods, construction materials, consumer goods, textiles, garments, etc. The Corporation also monitors counter trade/offsets commitments against high volume Government purchases.

### Foreign Exchange Earning (FEE) & Foreign Exchange Utilization ( FEU) by CPSEs DURING 2012-13

₹ in crores

S.No.	Cpses	Fee	Feu	Net Fee
1	Bharat Heavy Electricals Ltd.	12356.59	7184.92	5171.67
2	Air India Ltd.	9528.45	4752.35	4776.10
3	National Aluminium Company Ltd.	3377.50	554.14	2823.36
4	Airports Authority Of India Ltd.	1375.77	182.43	1193.34
5	Ircon International Ltd.	1996.79	1166.04	830.75
6	Rites Ltd.	342.14	24.67	317.47
7	Indian Rare Earths Ltd.	169.62	3.35	166.27
8	India Infrastructure Finance Co. Ltd.	169.44	50.54	118.90
9	Air India Charters Ltd.	1090.22	974.72	115.50
10	HindUstan Copper Ltd.	80.79	1.11	79.68
11	National Textile Corpn. Ltd.	84.16	17.83	66.33
12	Telecommunications Consultants (India) Ltd.	311.11	270.63	40.48
13	Central Cottage Industries Corpn. Of India Ltd.	23.05	0.00	23.05
14	Karnataka Antibiotics & Pharmaceuticals Ltd.	19.80	2.18	17.62
15	India Tourism Dev. Corpn. Ltd.	19.73	4.87	14.86
16	Indian Railway Catering And Tourism Corpn. Ltd.	11.06	1.37	9.69
17	Hindustan Insecticides Ltd.	16.29	7.58	8.71
18	Bridge & Roof Co.(India) Ltd.	10.54	3.53	7.01
19	Wapcos Ltd.	212.28	205.81	6.47
20	Projects & Development India Ltd.	7.13	1.37	5.76
21	Hindustan Fluorocarbons Limited	5.73	0.00	5.73
22	Cochin Shipyard Ltd.	612.52	610.26	2.26
23	Stcl Ltd.	2.23	0.00	2.23
24	Andrew Yule & Company Ltd.	2.11	0.41	1.70
25	National Seeds Corpn. Ltd.	1.67	0.00	1.67
26	Ircon Infrastructure & Services Ltd.	3.50	2.24	1.26
27	Hmt (International) Ltd.	6.94	5.98	0.96
28	Mahanagar Telephone Nigam Ltd.	3.95	3.07	0.88
29	Mecon Ltd.	2.38	1.65	0.73
30	Certification Engineers International Ltd.	1.65	1.00	0.65
31	Scooters India Ltd.	0.30	0.01	0.29
32	Hotel Corpn. Of India Ltd.	0.29	0.00	0.29
33	Edcil(India) Ltd.	0.56	0.37	0.19

34	Tamil Nadu Trade Promotion Organisation	0.09	0.00	0.09
35	Food Corpn. Of India	0.07	0.00	0.07
36	Hmt Bearings Ltd.	0.00	0.01	-0.01
37	National Scheduled Tribes Finance & Devp. Corpn.	0.00	0.02	-0.02
38	National Research Development Corpn.	0.00	0.02	-0.02
39	Ntpc Vidyut Vyapar Nigam Ltd.	0.00	0.02	-0.02
40	Hmt Ltd.	0.54	0.58	-0.04
41	Central Warehousing Corpn.	0.00	0.04	-0.04
42	Cotton Corpn. Of India Ltd.	0.00	0.08	-0.08
43	Mineral Exploration Corpn. Ltd.	0.00	0.09	-0.09
44	Ferro Scrap Nigam Ltd.	0.00	0.12	-0.12
45	Engineering Projects (India) Ltd.	0.00	0.25	-0.25
46	Bhel Electrical Machines Ltd.	0.00	0.30	-0.30
47	Gail Gas Ltd.	0.00	0.33	-0.33
48	Sjvn Ltd.	0.00	0.34	-0.34
49	Bharat Wagon & Engg. Co. Ltd.	0.00	0.35	-0.35
50	Hindustan Organic Chemicals Ltd.	0.00	0.63	-0.63
51	Rail Vikas Nigam Ltd.	0.00	0.72	-0.72
52	Konkan Railway Corporation Ltd.	0.00	0.81	-0.81
53	Artificial Limbs Mfg. Corpn. Of India	0.02	1.06	-1.04
54	Central Mine Planning & Design Institute Ltd.	0.00	1.21	-1.21
55	Nepa Ltd.	0.00	1.66	-1.66
56	India Trade Promotion Organisation	14.22	16.21	-1.99
57	Bharat Petro Resources Ltd.	0.00	2.64	-2.64
58	Hindustan Antibiotics Ltd.	0.49	3.40	-2.91
59	Moil Ltd.	0.00	3.28	-3.28
60	National Small Industries Corpn. Ltd.	0.14	3.61	-3.47
61	Indian Renewable Energy Devt.Agency Ltd.	34.41	38.12	-3.71
62	National Film Dev. Corpn. Ltd.	1.42	5.19	-3.77
63	Uranium Corporation Of India Ltd.	0.00	3.88	-3.88
64	Brahmaputra Valley Fertilizer Corpn. Ltd.	0.00	3.90	-3.90
65	Bharat Heavy Plate & Vessels Ltd.	0.00	3.93	-3.93
66	South Eastern Coalfields Ltd.	0.00	5.15	-5.15
67	Sail Refractory Company Ltd.	0.00	5.68	-5.68
68	Mahanadi Coalfields Ltd.	0.00	6.32	-6.32
69	Housing & Urban Dev. Corpn. Ltd.	0.00	8.92	-8.92
70	Hll Lifecare Ltd.	115.65	126.07	-10.42

71	Central Coalfields Ltd.	0.00	10.63	-10.63
72	Prize Petroleum Company Ltd.	0.00	11.11	-11.11
73	Burn Standard Company Ltd.	0.00	12.26	-12.26
74	Central Electronics Ltd.	5.09	18.72	-13.63
75	Instrumentation Ltd.	0.77	17.07	-16.30
76	Eastern Coalfields Ltd.	0.00	19.41	-19.41
77	North Eastern Electric Power Corporation Ltd.	0.00	22.99	-22.99
78	Western Coalfields Ltd.	0.00	24.40	-24.40
79	Mumbai Railway Vikas Corporation Ltd.	0.00	28.01	-28.01
80	I T I Ltd.	0.00	28.44	-28.44
81	Broadcast Engg. Consultants India Ltd.	0.52	31.82	-31.30
82	Bharat Pumps & Compressors Ltd.	0.00	32.37	-32.37
83	Hindustan Newsprint Ltd.	0.00	34.47	-34.47
84	Ongc Videsh Ltd.	7859.42	7896.56	-37.14
85	Rajasthan Electronics And Instruments Ltd.	0.70	37.97	-37.27
86	Thdc Ltd.	0.00	53.51	-53.51
87	Dredging Corpn. Of India Ltd.	0.00	56.78	-56.78
88	Neyveli Lignite Corpn. Ltd.	0.00	71.54	-71.54
89	Shipping Corporation Of India Ltd.	4258.94	4332.53	-73.59
90	Heavy Engineering Corpn. Ltd.	0.00	82.47	-82.47
91	National Informatics Centre Services Incorporated	0.00	91.39	-91.39
92	Hindustan Shipyard Ltd.	0.51	104.30	-103.79
93	Bharat Immunologicals & Biologicals Corp. Ltd.	0.36	115.29	-114.93
94	Balmer Lawrie & Co. Ltd.	27.12	150.22	-123.10
95	Pawan Hans Helicopters Ltd.	96.89	220.11	-123.22
96	Goa Shipyard Ltd.	0.34	141.13	-140.79
97	Engineers India Ltd.	156.80	317.20	-160.40
98	Nhpc Ltd.	3.03	180.60	-177.57
99	Kiocl LTd.	0.00	178.48	-178.48
100	Coal India Ltd.	0.03	179.94	-179.91
101	Nmdc Ltd.	0.00	185.73	-185.73
102	Mishra Dhatu Nigam Ltd.	0.00	209.25	-209.25
103	Madras Fertilizers Ltd.	0.00	216.24	-216.24
104	National Fertilizers Ltd.	0.00	227.19	-227.19
105	Power Finance Corporation	0.00	262.90	-262.90
106	Northern Coalfields Ltd.	0.00	283.41	-283.41
107	Garden Reach Shipbuilders & Engineers Ltd.	0.00	284.81	-284.81

108	Electronics Corpn. Of India Ltd.	1.18	297.80	-296.62
109	Indian RailWay Finance Corporation Ltd.	0.00	315.19	-315.19
110	Oil India Ltd.	1.63	324.49	-322.86
111	Numaligarh Refinery Ltd.	0.00	365.95	-365.95
112	Rural Electrification Corpn. Ltd.	0.00	377.39	-377.39
113	Antrix Corporation Ltd.	111.57	493.87	-382.30
114	Brahamputra Crackers & Polymer Ltd.	0.00	488.19	-488.19
115	Beml Ltd.	179.42	672.90	-493.48
116	Bharat Dynamics Ltd.	0.03	545.57	-545.54
117	Nuclear Power Corpn. Of India Ltd.	0.00	598.08	-598.08
118	Security Printing & Minting Corpn. INdia Ltd.	0.00	639.97	-639.97
119	Bharat Sanchar Nigam Ltd.	90.43	766.74	-676.31
120	Fertilizers & Chemicals (Travancore) Ltd.	39.52	792.73	-753.21
121	Rashtriya Chemicals And Fertilizers Ltd.	1.68	1564.34	-1562.66
122	Ntpc Ltd.	2.25	1768.55	-1766.30
123	Power Grid Corporation Of India Ltd.	93.85	1955.80	-1861.95
124	Mazagon Dock Ltd.	277.80	2267.53	-1989.73
125	P E C Ltd.	3027.11	6580.64	-3553.53
126	Rashtriya Ispat Nigam Ltd.	633.81	4262.26	-3628.45
127	Handicrafts & Handloom Exports Corp. Of India Ltd.	36.14	3866.40	-3830.26
128	Chennai Petroleum Corporation Ltd.	0.00	3849.68	-3849.68
129	Gail (India) Ltd.	32.02	4695.29	-4663.27
130	M S T C Ltd.	0.00	6612.91	-6612.91
131	Container Corporation Of India Ltd.	0.00	8191.81	-8191.81
132	Hindustan Aeronautics Ltd.	382.81	8839.53	-8456.72
133	Steel Authority Of India Ltd.	1158.23	15088.32	-13930.09
134	State Trading Corpn. Of India Ltd.	1573.12	16339.93	-14766.81
135	M M T C Ltd.	3000.67	20334.56	-17333.89
136	Mangalore Refinery & Petrochemicals Ltd.	32179.85	56137.41	-23957.56
137	Oil & Natural Gas Corporation Ltd.	7472.33	37630.93	-30158.60
138	Bharat Petroleum Corpn. Ltd.	18455.61	81893.37	-63437.76
139	Hindustan Petroleum Corpn. Ltd.	6416.82	112477.66	-106060.84
140	Indian Oil Corporation Ltd.	18558.61	212775.82	-194217.21
	<b>Grand Total:</b>	138150.35	646262.23	-508111.88

*Annex 5.2.*

**Loan ( secured & unsecured ) raised abroad by CPSEs during 2012-13 (more than ₹ 500 Crore)**

S.No.	Cpses	2012-13		Total	2011-12		Total
		Secured Loan	Un Secured Loan		Secured Loan	Un Secured Loan	
1	Indian Oil Corporation Ltd.	0	38706	38706	0	26234	26234
2	Power Grid Corporation Of India Ltd.	17599	3431	21030	11744	2607	14351
3	Bharat Petroleum Corpn. Ltd.	0	20763	20763	0	20339	20339
4	Ntpc Ltd.	0	16373	16373	99	12929	13028
5	Rural Electrification Corpn. Ltd.	0	14944	14944	0	10471	10471
6	Steel Authority Of India Ltd.	0	11840	11840	0	7087	7087
7	Indian Railway Finance Corporation Ltd.	114	9827	9941	147	8339	8486
8	Power Finance Corporation	0	8184	8184	0	4662	4662
9	Shipping Corporation Of India Ltd.	6321	0	6321	5168	0	5168
10	Gail (India) Ltd.	0	4313	4313	0	2323	2323
11	Mangalore Refinery & Petrochemicals Ltd.	1629	1194	2823	257	1855	2112
12	Indian Renewable Energy Devt. Agency Ltd.	119	2076	2195	0	1446	1446
13	Sjvn Ltd.	0	1768	1768	0	1207	1207
14	Chennai Petroleum Corporation Ltd.	44	1574	1618	97	1469	1566
15	Nuclear Power Corpn. Of India Ltd.	0	1370	1370	0	901	901
16	Coal India Ltd.	0	914	914	0	1173	1173
17	Dredging Corpn. Of India Ltd.	661	0	661	259	0	259
18	Housing & Urban Dev. Corpn. Ltd.	0	616	616	0	678	678
19	Neyveli Lignite Corpn. Ltd.	0	526	526	0	539	539
	<b>Grand Total:</b>	<b>26487</b>	<b>138419</b>	<b>164906</b>	<b>17771</b>	<b>104259</b>	<b>122030</b>

## Chapter 6

# ORGANISATIONAL STRUCTURE AND HUMAN RESOURCE MANAGEMENT

### 6.1 Organizational Structure of CPSEs

The Department of Public Enterprises formulates policy guidelines on the Board structure of Public Enterprises and advises on the shape and size of organizational structure of CPSEs. The public enterprises are categorized in four Schedules namely 'A', 'B', 'C' and 'D' based on various quantitative, qualitative and other factors. The quantitative factors are: investment, capital employed, net sales, profit before tax, number of employees and units, capacity addition, revenue per employee, sales/capital employed, capacity utilization and value added per employee. Qualitative factors are: national importance, complexities of problems being faced by the company, level of technology, prospects for expansion and diversification of activities and competition from other sectors, etc. The other factors, wherever available, relate to Share price, MOU ratings, Maharatna/Navratna/Miniratna status and ISO certification and also the factor relating to the critical/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 enterprise.

Proposals received from various administrative Ministries/ Departments for initial categorization/upgradation of CPSEs in appropriate schedule, personal upgradation, creation of posts in CPSEs, re-designation of Board level posts, etc. are considered in DPE in consultation with Public Enterprises Selection Board (PESB).

During 2012-13, 3 CPSEs were upgraded to higher schedule. ONGC Videsh Limited, Mangalore Refinery & Petrochemicals Limited and Indian Railway Finance Corporation Limited were upgraded from Schedule 'B' to Schedule 'A'. One CPSE, i.e. BHEL-EML Machine Limited was initially categorized as a Schedule 'C' CPSE. 4 posts of Functional Directors were created, i.e. (i) Joint Managing Director in Air India Ltd., (ii) Director (Finance) & (iii) Director

(Production and Planning) in Orissa Minerals Development Company Ltd. and (iv) Managing Director in BHEL-EML Machines Limited. One Chief Executive of a CPSE (National Film Development Corporation Ltd., a Schedule 'C' CPSE) was given higher scale of pay on personal basis. The post of Director(Technical) in Mangalore Refinery & Petrochemicals Limited was re-designated as Director(Refinery).

During the period from April 2013 to November 2013, 2 CPSEs were upgraded to higher schedule, viz. Mangalore Refinery & Petrochemicals Limited was upgraded from Schedule 'B' to 'A' and Bharat Petro Resources Limited was upgraded from Schedule 'C' to 'B'. 1 post of Functional Director, i.e. Director(Projects) was created in BBJ Construction Company Limited.

As on 30.11.2013, there were 277 CPSEs. Out of 277 there are 63 Schedule 'A', 69 Schedule 'B', 45 Schedule 'C', 4 Schedule 'D' and remaining 69 are uncategorized CPSEs. The Schedule-wise list is at Annex-6.1.

### 6.2 Appointment of Functional Directors of CPSEs

Functional Directors including Chief Executives of the CPSEs are appointed by the concerned Administrative Ministries/Departments on the basis of recommendations of Public Enterprises Selection Board (PESB). The Public enterprises Selection Board is a high powered body constituted by the Government of India vide its Resolution dated 3.3.1987. The PESB has been set up with the objective of evolving a sound managerial policy for the Central Public Sector Enterprises and, in particular, to advise Government on appointments to their top management posts. As per GOI Resolution, the PESB shall consist of a part-time or full-time chairperson and three full-time Members. The Chairperson and Members are persons who have had a long and distinguished career in management of public or private corporations or public in administration, and have had a proven record of achievements, preferably, in

the field of personnel, finance, production or marketing. The Government has streamlined the procedure for selection and appointment of Functional Directors on the Boards of CPSEs. The procedure for confirmation and extension of tenure of Board level incumbents of CPSEs has also been simplified and streamlined by the Government.

### **6.2.1 CVC Clearance**

The Government has also laid down the procedure for obtaining vigilance clearance from Central Vigilance Commission (CVC) in respect of candidates recommended by PESB for Board level posts in CPSEs so as to reduce delays and 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**

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 Boards of public enterprises. 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 1/3<sup>rd</sup> of the actual strength of the Board. In the case of listed CPSEs headed by 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 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.
- vii. Serving CEOs and Directors of private companies listed on the Stock Exchanges may also be considered for appointment as part-time non-official Directors on the Boards of CPSEs in exceptional circumstances.

#### **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.

#### **6.3.2 Reappointment**

The non-official Directors, will not be re-appointed in the same CPSE after completing a maximum of two tenures, each tenure being for a period of three years.

### **6.3.3 Appointment in number of CPSEs at the same time**

One person will not be appointed as non-official Director on the Boards of more than three CPSEs at the same time

#### **6.3.3.1 Directorship in private companies**

A person being considered for appointment as non-official Director on the Board of CPSEs should not hold directorship

in more than 10 private companies.

**6.3.4** 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 and 2 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.

**6.3.4.1** During the year 2012-13, the proposals for filling up 166 positions of non-official Directors on the Boards of 79 CPSEs were considered and suitable recommendations were conveyed to the concerned administrative Ministries/Departments. During the year 2013-14 (till November, 2013), the proposals for filling up 129 positions of non-official Directors on the Boards of 62 CPSEs were considered and suitable recommendations were conveyed to the concerned administrative Ministries/Departments.

## **6.4 Corporate Governance in Central Public Sector Enterprises (CPSEs)**

Keeping in view the importance of Corporate Governance principles in ensuring transparency and enhancing the trust of stakeholders and also the continued need to adopt and apply the good Corporate Governance practices in respect of CPSEs wherein huge public funds are invested, Government has introduced Guidelines on Corporate Governance for CPSEs, on mandatory basis, in March, 2010.

These Guidelines are applicable to all CPSEs and cover issues like composition of Board of CPSEs, Audit Committee, Remuneration Committee, Subsidiary Companies, Disclosures, Code of Conduct and Ethics, Risk Management and Reporting, 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 such

grading will be used for MOU Awards. Keeping in view the importance of Corporate Governance in State Level Public Enterprises, all States have also been advised to implement these Guidelines. The salient features of these guidelines are as under.

### **6.4.1 Composition of Board**

In respect of the Board's 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 maximum of two. In case of listed CPSEs with Executive Chairman, the number of non-official Directors shall be at least 50% of Board Members. In case of unlisted and listed CPSEs with Non-executive Chairman, at least one-third of the Board Members shall be non-official Directors. The Government has also laid down pre-defined criteria in terms of educational qualifications, age and experience in respect of persons to be considered for appointment as Non-official Directors. 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 company 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 minimum 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 holding company will be Director on the Board of subsidiary company and the Audit Committee of holding company will review financial statements of subsidiary. All significant transactions and arrangements of subsidiary companies 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 financial statements, treatment should be as per prescribed Accounting Standards 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 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. Chairman's speech in AGM will also carry a section on compliance with Corporate Governance Guidelines and will form part of the company's Annual Report. The CPSEs are required to submit quarterly compliance report to their administrative Ministries who will furnish a consolidated Annual Report to DPE.

During the year, DPE finalized the grading of CPSEs on the basis of their compliance with Guidelines on Corporate Governance for CPSEs for the year 2011-12 and the list is at Annexure 6.1.

## **6.5 Wage Policy and Manpower Rationalisation**

The Department of Public Enterprises (DPE) functions as 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.

### **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. In line with DPE O.M. dated 12.06.1990, DPE vide its O.M. dated 10.08.2009 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 277 CPSEs (excluding Banks, Insurance Companies and newly set up CPSEs), as on 31.3.2013 under the administrative control of the Central Government. They employed approximately 14.04 lakhs workmen, clerical staff and executives. Out of this, around 97% of the workmen and executives are on IDA pattern and related scales of pay. The remaining employees are on CDA pay pattern, deputation etc.

### **Second Pay Revision Committee**

The Government, after due consideration of the recommendations of the 2nd Pay Revision Committee headed by Justice M.J. Rao (a retired judge of the Supreme Court) and also the recommendations of the Committee of Ministers, headed by the then Home Minister (Chidambaram Committee) issued orders vide DPE OM dated 26.11.2008, 09.02.2009 and 02.04.2009 regarding pay revision w.e.f. 01.01.2007 in respect of executives and non-unionized Supervisors of CPSEs following IDA pattern of pay scales. The salient features of 2007 pay revision orders are as follows:-

- (i) Pay scales ranging from ₹ 12,600-32,500 for E-0 grade and to ₹ 80,000- 1,25,000 for Chief

- (ii) Executives of schedule 'A' CPSEs.
- (ii) A uniform fitment benefit @ 30% on basic pay plus DA @ 78.2% 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 + D.A.
- (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. The CPSE concerned have to finance pay revision from their own resources and no budgetary support will be provided.
- (ix) 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/problems that may arise the in implementation of Government orders on the recommendation of 2nd PRC.
- (x) 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.
- (xi) These benefits to be extended to all CPSEs. Benefits as given in these O.Ms to be viewed as a total package.

### Recommendations of Anomalies Committee

In terms of the provision of Anomalies Committee under DPE O.M. dated 26.11.2008, certain issues have been considered by the Anomalies Committee and DPE has issued orders accordingly. The issues covered are (i) Pay etc. of Government officers on deputation to CPSEs, (ii) Self Lease of residential 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 (ix) no other allowance or perks to be kept outside the 50% ceiling except the '4' that have been provided in DPE guidelines and (x) 'Under recoveries' not to be included in PBT for the purpose of calculating PRP.

### Wage Revision for Workmen under IDA pattern

DPE vide O.Ms dated 9.11.2006, 01.05.2008 and 13.06.2013 has issued policy guidelines for the 7th Round of Wage Negotiations (which was on a general basis effective from 01.01.2007/01.01.2012) 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 below 10 years but not less than 5 years, with the approval of their Minister.

### Pay revision of employees under CDA Pattern in CPSEs

DPE vide O.Ms dated 14.10.2008 and 20.01.2009 has revised pay scales and allowances w.e.f. 01.01.2006, of the employees of CPSEs following CDAPattern. 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.

### Important policy guidelines issued during the period 2012 and 2013

- (i) DPE vide O.M. dated 20.03.2012 conveyed administrative Ministries/Departments to issue suitable guidelines to the CPSEs under their administrative control regarding rate for recovery of rent on lease/self-lease accommodation.
- (ii) DPE vide O.M. dated 14.12.2012 has issued guidelines on finalization of terms & conditions including pay fixation in respect of Board level executives of CPSEs. It has been decided that henceforth the practice of sending the proposal for pay fixation and terms & conditions of appointment of Board level executives of CPSEs for vetting by DPE will be discontinued and all proposals for framing the terms & conditions, including pay fixation of Board level executives of all CPSEs will be finalized by the respective administrative Ministry/Department with the concurrence of their Integrated Finance Wing (IFW).
- (iii) DPE vide O.M. dated 21.01.2013 has issued guidelines on purchase, use, entitlement and other

instructions regarding staff car in CPSEs. These have been partially modified vide DPE OM dated 04.11.2013.

- (iv) The policy for 7th Round (2nd part) of Wage negotiations for unionized workers in CPSEs w.e.f.01.01.2013 has been issued vide DPE O.M. dated 13.06.2013.
- (v) DPE vide O.M. dated 18.09.2013 has clarified that interest on idle cash/bank balances may be deducted from profit before tax (PBT) and PRP may be distributed based on profit accruing only from the core business activities of CPSEs.

## 6.6 Voluntary Retirement Scheme (VRS)

As a result of the restructuring in some Central Public Sector Enterprises (CPSEs), Government announced the Voluntary Retirement Scheme (VRS) in October, 1988. A comprehensive package was later notified by the Department of Public Enterprises (Government of India) in May, 2000. In view of the difficulties faced by some CPSEs where the wage revision of 1992 or 1997 (as the case may be) could not be made effective, the VRS was further liberalized through subsequent notification of November, 2001. This notification, inter-alia, provides for 100% additional compensation for the employees where wage revision of 1992 could not be made effective. Similarly, 50% additional compensation was allowed for employees where wage revision of 1997 could not be made effective. The ex-gratia payment under VRS to employees following CDA pattern at 1986 scales of pay has been also enhanced by 50% w.e.f. 26.10.2004. These increases in VRS compensation are to be computed based on the existing pay of employees. From the introduction of the VRS Scheme in October, 1988 till March 2013 approximately 6.16 lakh employees have been released under the Scheme.

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

Enterprises, which are financially sound and can sustain VRS on their own, can frame their own schemes of VRS and make it attractive enough for employees to opt for it. They may offer as compensation upto 60 days salary (only

Basic Pay +DA) for every completed year of service. Such compensation will, however, not exceed the salary for the balance period of the service left.

### 6.6.2 VRS in marginally profit or loss Making / sick / unviable CPSEs

Marginally profit /loss making CPSEs as well as sick and unviable units may adopt either of the following models:

**Gujarat Model**, under which the compensation is computed by allowing 35 days salary for every completed year of service and 25 days for each year of the balance service left until superannuation subject to the condition that compensation shall not exceed the sum of salary for the balance period left for superannuation.

**Department of Heavy Industry (DHI) model**, under which ex-gratia payment made is 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. The employees who have completed not less than 30 years of service will be eligible for a maximum of 60 (sixty) months salary/wage as compensation and this will be subject to the amount not exceeding the salary/wage for the balance period of service left.

## 6.7 Scheme of Counselling, Retraining and Redeployment

In the context of restructuring of Central Public Sector Enterprises (CPSEs), rationalization of manpower has become a necessity. The policy of the Government has been to implement reforms with a humane face and provide adequate safety net for the workers adversely affected due to right sizing. Considering the need to have safety net, Government had established the National Renewal Fund (NRF) in February, 1992 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. After the abolition of NRF in February, 2000, the Scheme for Counselling, Retraining and Redeployment (CRR) of Rationalized Employees of CPSEs is being implemented by Department of Public Enterprises since 2001-02. CRR Scheme was modified in November, 2007 in order to widen its scope and coverage. One dependent of VRS optee is also eligible in case the VRS optee himself/herself is not interested.

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

- reorient rationalized employees through short duration training programmes.
- equip them for new vocations.
- engage them in income generating self-employment.
- 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 VRS compensation, to get motivated for facing challenges and to re-join the productive process. **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 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.

In the year 2012-13, plan funds to the tune of ₹ 8.60 crore were allocated for implementation of CRR Scheme. During the year, 13 nodal agencies were operational with 49 Employees Assistance Centres (EACs) located all over the country. Year wise number of persons trained under the scheme is shown as under:-

**Table 7.1**  
**CRR Scheme**

Year	Number of VRS optees trained
2001-02	<b>8,064</b>
2002-03	12,066
2003-04	12,134
2004-05	28,003
2005-06	32,158
2006-07	34,398
2007-08	9,728
2008-09	9,772
2009-10	7,400
2010-11	9,265
2011-12	9,400
2012-13	7,506
Total	1,79,894

During 2012-13, National Institute for Entrepreneurship & Small Business (NIESBUD), an autonomous body under Ministry of Micro, Small & Medium Enterprises was engaged as Third Party Assessment Agency (TPAA) to evaluate the performance of nodal agencies.

## 6.8 Employment under Reserved Category

The Personnel and Recruitment Policies in respect of appointments 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 of India to the enterprises which are to be kept in view by the latter while framing their individual corporate policies. Furthermore, formal Presidential Directives are 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 similar 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 the CPSEs and taking necessary follow-up actions after scrutinizing these reports. A comprehensive Presidential Directive incorporating all important instructions on reservation for SCs and STs was issued by DPE 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.

Subsequently, 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 in 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. Department of Public Enterprises (DPE) has 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 the 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 also extended vide DPE O.M. dated 2<sup>nd</sup> 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 said sub-quota.

Although the administrative Ministries/Departments are 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 to improve the representation of Scheduled Castes/ Scheduled Tribes/OBCs in the services, particularly in Group 'A' & 'B' posts. CPSEs have also been advised to invariably associate an officer of appropriate level belonging to SC/ST with their Departmental Promotion Committee/Selection Board. The present quota for providing reservation for candidates belonging to Scheduled Castes, Scheduled Tribes and OBCs as well as other categories of persons entitled to reservation of vacancies (where recruitment is on All-India basis) through open competition is shown 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%

- Group 'A': Managerial/Executive Level
- Group 'B': Supervisory Level
- Group 'C': Workmen/Clerical Level
- Group 'D': Semi-skilled/Unskilled

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 14.63% and 5.48% respectively as on 1.1.2013. Similarly, 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 14.59% and 7.80% respectively as on 1.1.2013 (**Annexure 6.2 and Statements**).

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. This has improved the situation. Further, the Government has issued necessary instructions from time to time to launch a Special Recruitment Drive (s) to fill up backlog of reserved vacancies for SCs, STs & OBCs in CPSEs. DPE has also extended these instructions to all administrative Ministries/ Departments dealing with CPSEs to fill up these vacancies in a time bound manner.

DPE has also extended instructions vis-à-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.

DPE has also issued draft Presidential Directive on 22.4.1991 to all the administrative Ministries/Departments concerned with the 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.

## Grading of CPSEs on the basis of their compliance with guidelines on Corporate Governance for the year 2011-12

Annex 6.1

S 1 . No.	Name of CPSEs (As per Survey 2010-11)	Administrative Ministry	Grading for the year 2011-12
1	ELECTRONICS CORPN. OF INDIA LTD.	D/o Atomic Energy	Good
2	INDIAN RARE EARTHS LTD.	D/o Atomic Energy	Very Good
3	URANIUM CORPORATION OF INDIA LTD.	D/o Atomic Energy	Very Good
4	NUCLEAR POWER CORPN. OF INDIA LTD.	D/o Atomic Energy	Excellent
5	BHARATIYA NABHIKIYA VIDYUT NIGAM LTD. (UC)	D/o Atomic Energy	Not Complied
6	ANTRIX CORPORATION LTD.	Dept. of Space	Good
7	NATIONAL SEEDS CORPN. LTD.	M/o Agriculture, D/o Agriculture	Very Good
8	STATE FARMS CORPORATION OF INDIA LTD.	M/o Agriculture, D/o Agriculture	Excellent
9	BRAHMAPUTRA VALLEY FERTILIZER CORPN. LTD.	M/o Chemicals & Fertilizers D/o Chemicals & Petrochemicals	Not Complied
10	HINDUSTAN ORGANIC CHEMICALS LTD.	M/o Chemicals & Fertilizers D/o Chemicals & Petrochemicals	Very Good
11	HINDUSTAN INSECTICIDES LTD.	M/o Chemicals & Fertilizers D/o Chemicals & Petrochemicals	Good
12	HINDUSTAN FLUOROCARBONS LIMITED	M/o Chemicals & Fertilizers D/o Chemicals & Petrochemicals	Not Complied
13	BRAHMAPUTRA CRACKERS & POLYMER LTD. (UC)	M/o Chemicals & Fertilizers D/o Chemicals & Petrochemicals	Very Good
14	FERTILIZERS & CHEMICALS (TRAVANCORE) LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Very Good
15	NATIONAL FERTILIZERS LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Very Good
16	PROJECTS & DEVELOPMENT INDIA LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Not Complied
17	FERTILIZER CORPN. OF INDIA LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Not Complied
18	HINDUSTAN FERTILIZER CORPN. LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Not Complied
19	MADRAS FERTILIZERS LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Not Complied
20	FCI ARAVALI GYPSUM & MINERALS (INDIA) LTD.	M/o Chemicals & Fertilizers D/o Fertilizers	Fair
21	RASHTRIYA CHEMICALS AND FERTILIZERS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Excellent
22	INDIAN DRUGS & PHARMACEUTICALS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Not Complied
23	KARNATAKA ANTIBIOTICS & PHARMACEUTICALS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Fair
24	HINDUSTAN ANTIBIOTICS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Not Complied
25	BENGAL CHEMICALS & PHARMACEUTICALS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Poor
26	ORISSA DRUGS & CHEMICALS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Not Complied
27	RAJASTHAN DRUGS & PHARMACEUTICALS LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Not Complied

28	BIHAR DRUGS & ORGANIC CHEMICALS LTD. (UC)	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Not Complied
29	IDPL (TAMILNADU) LTD.	M/o Chemicals & Fertilizers D/o Pharmaceuticals	Not Complied
30	AIRPORTS AUTHORITY OF INDIA LTD.	M/o Civil Aviation	Not applicable
31	NATIONAL AVIATION CO. OF INDIA LTD.	M/o Civil Aviation	Not Complied
32	AIR INDIA LTD.	M/o Civil Aviation	Very Good
33	PAWAN HANS HELICOPTERS LTD.	M/o Civil Aviation	Not Complied
34	HOTEL CORPN. OF INDIA LTD.	M/o Civil Aviation	Not Complied
35	AIR INDIA CHARTERS LTD.	M/o Civil Aviation	Not Complied
36	AIR INDIA ENGINEERING SERVICES LTD. (UC)	M/o Civil Aviation	Not Complied
37	AIRLINE ALLIED SERVICES LTD.	M/o Civil Aviation	Not Complied
38	AIR INDIA AIR TRANSPORT SERVICES LIMITED	M/o Civil Aviation	Not Complied
39	COAL INDIA LTD.	M/o Coal	Excellent
40	NEYVELI LIGNITE CORPN. LTD.	M/o Coal	Excellent
41	MAHANADI COALFIELDLS LTD.	M/o Coal	Excellent
42	WESTERN COALFIELDS LTD.	M/o Coal	Excellent
43	CENTRAL COALFIELDS LTD.	M/o Coal	Not Complied
44	EASTERN COALFIELDS LTD.	M/o Coal	Not Complied
45	CENTRAL MINE PLANNING & DESIGN INSTITUTE LTD.	M/o Coal	Not Complied
46	NORTHERN COALFIELDS LTD.	M/o Coal	Not Complied
47	BHARAT COKING COAL LTD.	M/o Coal	Very Good
48	SOUTH EASTERN COALFIELDS LTD.	M/o Coal	Excellent
49	MJSJ COAL LTD. (UC)	M/o Coal	Not Complied
50	MNH SHAKTI LTD. (UC)	M/o Coal	Not Complied
51	M M T C LTD.	M/o Commerce & Industry D/o Commerce	Excellent
52	STATE TRADING CORPN. OF INDIA LTD.	M/o Commerce & Industry D/o Commerce	Excellent
53	P E C LTD.	M/o Commerce & Industry D/o Commerce	Excellent
54	STCL LTD.	M/o Commerce & Industry D/o Commerce	Poor
55	INDIA TRADE PROMOTION ORGANISATION	M/o Commerce & Industry, D/o Commerce	Very Good
56	TAMIL NADU TRADE PROMOTION ORGANISATION	M/o Commerce & Industry, D/o Commerce	Good
57	EXPORT CREDIT GUARANTEE CORPN.OF INDIA LTD.	M/o Commerce & Industry, D/o Commerce	Good
58	KARNATAKA TRADE PROMOTION ORGANISATION	M/o Commerce & Industry, D/o Commerce	Very Good
59	FOOD CORPN. OF INDIA	M/o Consumer Affairs, Food & Public Distribution D/o Food & Public Distribution	Fair
60	CENTRAL WAREHOUSING CORPN.	M/o Consumer Affairs, Food & Public Distribution D/o Food & Public Distribution	Excellent
61	HINDUSTAN VEGETABLE OILS CORPN. LTD.	M/o Consumer Affairs, Food & Public Distribution D/o Food & Public Distribution	Under Liquidation

62	CENTRAL RAILSIDE WAREHOUSING CO. LTD.	M/o Consumer Affairs, Food & Public Distribution D/o Food & Public Distribution	Good
63	BHARAT ELECTRONICS LTD.	M/o Defence D/o Defence Production	Excellent
64	HINDUSTAN AERONAUTICS LTD.	M/o Defence D/o Defence Production	Excellent
65	MAZAGON DOCK LTD.	M/o Defence D/o Defence Production	Very Good
66	GOA SHIPYARD LTD.	M/o Defence D/o Defence Production	Excellent
67	BEL OPTRONICS DEVICES LTD.	M/o Defence D/o Defence Production	Good
68	BEML LTD.	M/o Defence D/o Defence Production	Excellent
69	BHARAT DYNAMICS LTD.	M/o Defence D/o Defence Production	Excellent
70	GARDEN REACH SHIPBUILDERS & ENGINEERS LTD.	M/o Defence D/o Defence Production	Excellent
71	MISHRA DHATU NIGAM LTD.	M/o Defence D/o Defence Production	Excellent
72	HINDUSTAN SHIPYARD LTD.	M/o Defence D/o Defence Production	Not Complied
73	VIGNYAN INDUSTRIES LTD.	M/o Defence D/o Defence Production	Not Complied
74	NORTH EASTERN REGIONAL AGRI. MARKETING CORP. LTD.	M/o Development of North Eastern Regions	Not Complied
75	NORTH EASTERN HANDICRAFTS & HANDLOOM DEV. CORPN. LTD.	M/o Development of North Eastern Regions	Not Complied
76	ANDAMAN & NICOBAR ISL. FOREST & PLANT. DEV. CORP. LTD.	M/o Environment and Forest, Dept. Of Forest	Subjudice
77	SECURITY PRINTING & MINTING CORPN. INDIA LTD.	M/o Finance D/o Economics Affairs	Excellent
78	INDIA INFRASTRUCTURE FINANCE CO. LTD.	M/o Finance D/o Financial Services	Not Complied
79	INDIAN MEDICINES & PHARMACEUTICAL CORPN. LTD.	M/o Health & Family Welfare D/o AYUSH	Fair
80	HLL LIFECARE LTD.	M/o Health & Family Welfare D/o Health & Family Welfare	Excellent
81	HSCC (INDIA) LTD.	M/o Health & Family Welfare D/o Health & Family Welfare	Very Good
82	HOUSING & URBAN DEV. CORPN. LTD.	M/o Housing & Urban Poverty Alleviation	Excellent
83	EdCIL (India) Ltd.	M/o Human Resource & Development D/o Higher Education	Fair
84	NATIONAL FILM DEV. CORPN. LTD.	M/o Information & Broadcasting	Excellent
85	BROADCAST ENGG. CONSULTANTS INDIA LTD.	M/o Information & Broadcasting	Poor
86	NATIONAL SMALL INDUSTRIES CORPN. LTD.	M/o Micro, Small & Medium Enterprises	Excellent
87	NATIONAL ALUMINIUM COMPANY LTD.	M/o Mines	Excellent
88	HINDUSTAN COPPER LTD.	M/o Mines	Very Good
89	MINERAL EXPLORATION CORPN. LTD.	M/o Mines	Good
90	NATIONAL MINORITIES DEVP. & FINANCE CORPN.	M/o Minorities Affairs	Good
91	INDIAN RENEWABLE ENERGY DEVT. AGENCY LTD.	M/o New & Renewable Energy	Excellent
92	NTPC LTD.	M/o Power	Excellent
93	SJVN LTD.	M/o Power	Excellent
94	NHPC LTD.	M/o Power	Excellent
95	TEHRI HYDRO DEVELOPMENT CORP. LTD.	M/o Power	Excellent
96	POWER FINANCE CORPORATION	M/o Power	Excellent
97	POWER GRID CORPORATION OF INDIA LTD.	M/o Power	Excellent
98	RURAL ELECTRIFICATION CORPN. LTD.	M/o Power	Excellent
99	NORTH EASTERN ELECTRIC POWER CORPORATION LTD.	M/o Power	Fair
100	NLC TAMIL NADU POWER LTD. (UC)	M/o Power	Excellent
101	BHARTIYA RAIL BIJLEE CO. LTD. (UC)	M/o Power	Not Complied

102	CHHATTISHGARH SURGUJA POWER LTD. (UC)	M/o Power	Not Complied
103	COASTAL KARNATAKA POWER LTD. (UC)	M/o Power	Not Complied
104	COASTAL MAHARASHTRA MEGA POWER LTD. (UC)	M/o Power	Not Complied
105	COASTAL TAMIL NADU POWER LTD. (UC)	M/o Power	Not Complied
106	GHOARPALLI INTEGRATED POWER COMPANY LTD. (UC)	M/o Power	Not Complied
107	KANTI BIJLEE UTPADAN NIGAM LTD. (UC)	M/o Power	Not Complied
108	NTPC ELECTRIC SUPPLY COMPANY LTD.	M/o Power	Not Complied
109	NTPC HYDRO LTD. (UC)	M/o Power	Not Complied
110	NTPC VIDYUT VYAPAR NIGAM LTD.	M/o Power	Not Complied
111	ORISSA INTEGRATED POWER LTD. (UC)	M/o Power	Not Complied
112	PFC CONSULTING LTD.	M/o Power	Not Complied
113	REC POWER DISTRIBUTION CO. LTD.	M/o Power	Not Complied
114	REC TRANSMISSION PROJECT CO. LTD.	M/o Power	Not Complied
115	SAKHIGOPAL INTEGRATED POWER COMPANY LTD. (UC)	M/o Power	Not Complied
116	TATIYA ANDHRA MEGA POWER LTD. (UC)	M/o Power	Not Complied
117	LOKTAK DOWNSTREAM HYDROELECTRIC CORPORATION LTD. (UC)	M/o Power	Poor
118	POWER SYSTEM OPERATION CORPORATION LTD. (UC)	M/o Power	Very Good
119	NARMADA HYDROELECTRIC DEVELOPMENT CORPN. LTD.	M/o Power	Very Good
120	KONKAN RAILWAY CORPORATION LTD.	M/o Railways	Excellent
121	CONTAINER CORPORATION OF INDIA LTD.	M/o Railways	Excellent
122	IRCON INTERNATIONAL LTD.	M/o Railways	Excellent
123	MITES LTD.	M/o Railways	Excellent
124	RAIL VIKAS NIGAM LTD.	M/o Railways	Excellent
125	RAILTEL CORPORATION INDIA LTD.	M/o Railways	Excellent
126	MUMBAI RAILWAY VIKAS CORPORATION LTD.	M/o Railways	Poor
127	BRAITHWAITE & CO. LTD.	M/o Railways	Excellent
128	INDIAN RAILWAY CATERING AND TOURISM CORPN. LTD.	M/o Railways	Excellent
129	BURN STANDARD COMPANY LTD.	M/o Railways	Good
130	INDIAN RAILWAY FINANCE CORPORATION LTD.	M/o Railways	Very Good
131	BHARAT WAGON & ENGG. CO. LTD.	M/o Railways	Good
132	FRESH & HEALTHY ENTERPRISES LTD.	M/o Railways	Good
133	IRCON INFRASTRUCTURE & SERVICES LTD. (UC)	M/o Railways	Not Complied
134	MITES Infrastructure Services Limited	M/o Railways	Not Complied
135	DEDICATED FRIGHT CORRIDOR CORP. OF INDIA LTD. (UC)	M/o Railways	Very Good
136	INDIAN VACCINE CORP. LTD. (UC)	M/o Science and Technology	Not Complied
137	CENTRAL ELECTRONICS LTD.	M/o Science and Technology, D/o Scientific and Industrial Research	Not Complied
138	NATIONAL RESEARCH DEVELOPMENT CORPN.	M/o Science and Technology, D/o Scientific and Industrial Research	Not Complied
139	ENNORE PORT LTD.	M/o Shipping	Excellent
140	DREDGING CORPN. OF INDIA LTD.	M/o Shipping	Excellent
141	CENTRAL INLAND WATER TRANSPORT CORPN. LTD.	M/o Shipping	Fair
142	HOOGLY DOCK AND PORT ENGINEERS LTD.	M/o Shipping	Not Complied
143	SETHUSAMUDRAM CORPN. LTD. (UC)	M/o Shipping	Not Complied
144	SHIPPING CORPORATION OF INDIA LTD.	M/o Shipping D/o Shipping	Excellent
145	COCHIN SHIPYARD LTD.	M/o Shipping D/o Shipping	Very Good

146	NATIONAL SAFAI KARAMCHARIS FINANCE & DEVPT. CORPN	M/o Social Justice & Empowerment, D/o Social Justice & Empowerment	Excellent
147	NATIONAL SCHEDULED CASTES FINANCE & DEVP. CORPN.	M/o Social Justice & Empowerment, D/o Social Justice & Empowerment	Excellent
148	NATIONAL BACKWARD CLASSES FINANCE & DEVP.CO.	M/o Social Justice & Empowerment, D/o Social Justice & Empowerment	Very Good
149	STEEL AUTHORITY OF INDIA LTD.	M/o Steel	Excellent
150	KIOCL LTD.	M/o Steel	Excellent
151	MECON LTD.	M/o Steel	Excellent
152	NMDC Ltd.	M/o Steel	Excellent
153	RASHTRIYA ISPAT NIGAM LTD.	M/o Steel	Excellent
154	HINDUSTAN STEELWORKS COSTN. LTD.	M/o Steel	Excellent
155	M S T C LTD.	M/o Steel	Excellent
156	MANGANESE ORE(INDIA) LTD.	M/o Steel	Excellent
157	FERRO SCRAP NIGAM LTD.	M/o Steel	Good
158	BISRA STONE LIME COMPANY LTD.	M/o Steel	Excellent
159	EASTERN INVESTMENT LTD.	M/o Steel	Excellent
160	ORISSA MINERAL DEVELOPMENT COMPANY LTD.	M/o Steel	Excellent
161	J & K MINERAL DEVELOPMENT CORPN. LTD.	M/o Steel	Yet to commence commercial operation
162	NMDC-CMDC Limited	M/o Steel	Yet to commence commercial operation
163	NATIONAL TEXTILE CORPN. LTD.	M/o Textiles	Very Good
164	HANDICRAFTS & HANDLOOM EXPORTS CORP. OF INDIA LTD.	M/o Textiles	Fair
165	NATIONAL HANDLOOM DEVELOPMENT CORPORATION LTD.	M/o Textiles	Good
166	NATIONAL JUTE MANUFACTURES CORPORATION LTD.	M/o Textiles	Not Complied
167	BRITISH INDIA CORPORATION LTD.	M/o Textiles	Not Complied
168	COTTON CORPN. OF INDIA LTD.	M/o Textiles	Very Good
169	CENTRAL COTTAGE INDUSTRIES CORPN. OF INDIA LTD.	M/o Textiles	Not Complied
170	JUTE CORPN. OF INDIA LTD.	M/o Textiles	Very Good
171	BIRDS JUTE & EXPORTS LTD.	M/o Textiles	Not Complied
172	INDIA TOURISM DEV. CORPN. LTD.	M/o Tourism	Good
173	PONDICHERRY ASHOK HOTEL CORPN. LTD.	M/o Tourism	Excellent
174	MADHYA PRADESH ASHOK HOTEL CORPN. LTD.	M/o Tourism	Good
175	KUMARAKRUPPA FRONTIER HOTELS LTD.	M/o Tourism	Not Complied
176	PUNJAB ASHOK HOTEL COMPANY LTD. (UC)	M/o Tourism	Not Complied
177	UTKAL ASHOK HOTEL CORPN. LTD.	M/o Tourism	Not Complied
178	ASSAM ASHOK HOTEL CORPN. LTD.	M/o Tourism	Poor
179	DONYI POLO ASHOK HOTEL LTD.	M/o Tourism	Poor
180	RANCHI ASHOK BIHAR HOTEL CORPN. LTD.	M/o Tourism	Poor
181	NATIONAL SCHEDULED TRIBES FINANCE & DEVP. CORPN.	M/o Tribal Affairs	Very Good
182	NATIONAL BLDG. CONSTN. CORPN. LTD.	M/o Urban Development	Good
183	HINDUSTAN PREFAB LTD.	M/o Housing and Urban Poverty Alleviation.	Very Good
184	WAPCOS LTD.	M/o Water Resources	Excellent
185	NATIONAL PROJECTS CONSTRUCTION CORPN. LTD.	M/o Water Resources	Very Good

186	NATIONAL INFORMATICS CENTRE SERVICES INCORPORATED	M/o. Communication & Information Technology D/o Information Technology	Very Good
187	ITI LTD.	M/o. Communication and Information Technology, Dept. of Telecommunications	Excellent
188	BHARAT SANCHAR NIGAM LTD.	M/o. Communication and Information Technology, Dept. of Telecommunications	Excellent
189	TELECOMMUNICATIONS CONSULTANTS (INDIA) LTD.	M/o. Communication and Information Technology, Dept. of Telecommunications	Excellent
190	MAHANAGAR TELEPHONE NIGAM LTD.	M/o. Communication and Information Technology, Dept. of Telecommunications	Excellent
191	MILLENNIUM TELECOM LTD.	M/o. Communication and Information Technology, Dept. of Telecommunications	Not Complied
192	BHARAT HEAVY ELECTRICALS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Excellent
193	BHARAT BHARI UDYOG NIGAM LTD.	M/o. HI&PE, Dept. of Heavy Industry	Fair
194	HEAVY ENGINEERING CORPN. LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
195	HMT LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
196	HINDUSTAN PAPER CORPORATION LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
197	HMT MACHINE TOOLS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Fair
198	HINDUSTAN NEWSPRINT LTD.	M/o. HI&PE, Dept. of Heavy Industry	Fair
199	SCOOTERS INDIA LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
200	BHARAT PUMPS & COMPRESSORS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
201	BHARAT HEAVY PLATE & VESSELS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
202	CEMENT CORPN. OF INDIA LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
203	HMT (INTERNATIONAL) LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
204	ANDREW YULE & COMPANY LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
205	HINDUSTAN CABLES LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
206	INSTRUMENTATION LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
207	TYRE CORPORATION OF INDIA LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
208	BBJ CONSTRUCTION COMPANY LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
209	BRIDGE & ROOF CO.(INDIA) LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
210	HMT WATCHES LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
211	HOOGHLY PRINTING COMPANY LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
212	ENGINEERING PROJECTS (INDIA) LTD.	M/o. HI&PE, Dept. of Heavy Industry	Very Good
213	HMT BEARINGS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
214	HMT CHINAR WATCHES LTD.	M/o. HI&PE, Dept. of Heavy Industry	Good
215	HINDUSTAN SALTS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
216	HINDUSTAN PHOTO FILMS MANUFACTURING CO. LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
217	RICHARDSON & CRUDDAS(1972) LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
218	TRIVENI STRUCTURALS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
219	TUNGABHADRA STEEL PRODUCTS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
220	SAMBHAR SALTS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Not Complied
221	NAGALAND PULP & PAPER COMPANY LTD.	M/o. HI&PE, Dept. of Heavy Industry	Poor
222	NEPA LTD.	M/o. HI&PE, Dept. of Heavy Industry	Very Good
223	RAJASTHAN ELECTRONICS AND INSTRUMENTS LTD.	M/o. HI&PE, Dept. of Heavy Industry	Very Good
224	BHEL Electrical Machines Limited	M/o. HI&PE, Dept. of Heavy Industry	Poor
225	JAGDISHPUR PAPER MILLS LTD. (UC)	M/o. HI&PE, Dept. of Heavy Industry	Poor
226	INDIAN OIL CORPORATION LTD.	M/o. Petroleum & Natural Gas	Excellent

227	OIL & NATURAL GAS CORPORATION LTD.	M/o. Petroleum & Natural Gas	Excellent
228	ENGINEERS INDIA LTD.	M/o. Petroleum & Natural Gas	Excellent
229	BHARAT PETROLEUM CORPN. LTD.	M/o. Petroleum & Natural Gas	Excellent
230	GAIL (INDIA) LTD.	M/o. Petroleum & Natural Gas	Excellent
231	HINDUSTAN PETROLEUM CORPN. LTD.	M/o. Petroleum & Natural Gas	Excellent
232	OIL INDIA LTD.	M/o. Petroleum & Natural Gas	Excellent
233	BALMER LAWRIE & CO. LTD.	M/o. Petroleum & Natural Gas	Excellent
234	CHENNAI PETROLEUM CORPORATION LTD.	M/o. Petroleum & Natural Gas	Excellent
235	MANGALORE REFINERY & PETROCHEMICALS LTD.	M/o. Petroleum & Natural Gas	Excellent
236	NUMALIGARH REFINARY LTD.	M/o. Petroleum & Natural Gas	Excellent
237	ONGC VIDESH LTD.	M/o. Petroleum & Natural Gas	Excellent
238	BHARAT PETRO RESOURCES LTD.	M/o. Petroleum & Natural Gas	Excellent
239	BIECCO LAWRIE & CO. LTD.	M/o. Petroleum & Natural Gas	Good
240	CERTIFICATION ENGINEERS INTERNATIONAL LTD.	M/o. Petroleum & Natural Gas	Poor
241	BHARAT PETRO RESOURCES JPDA (UC)	M/o. Petroleum & Natural Gas	Not Complied
242	CREDA HPCL BIOFUEL LTD. (UC)	M/o. Petroleum & Natural Gas	Very Good
243	GAIL GAS LTD.	M/o. Petroleum & Natural Gas	Very Good
244	HPCL BIOFUELS LTD. (UC)	M/o. Petroleum & Natural Gas	Very Good
245	BALMER LAWRIE INVESTMENTS LTD.	M/o. Petroleum & Natural Gas	Very Good
246	BHARAT IMMUNOLOGICALS & BIOLOGICALS CORP. LTD.	M/o. Science & Technology, Dept. of Bio-technology	Not Complied
247	ARTIFICIAL LIMBS MFG. CORPN. OF INDIA	M/o. Social Justice & Empowerment, D/o Disability Affairs	Not Complied
248	NATIONAL HANDICAPPED FINANCE & DEVPT. CORPN.	M/o. Social Justice & Empowerment, D/o Disability Affairs	Not Complied

a).Above grading is on the basis of Self-evaluation Reports on Corporate Governance submitted by CPSEs directly or through respective administrative Ministries/Departments.

b). Number of CPSEs as per the list of PE Survey 2010-11.

c). Self-evaluation Report not received in respect of 81 CPSEs are graded 'Not Complied' which is equivalent to 'Poor'.

## Annexure 6.2

**Representation of SCs/STs/OBCs in CPSEs**

Group	Total No. of employees	Representation of SCs/STs			
		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'	3,53,981	79,167	22.36	38,083	10.76
(Excluding Safai Karamcharis)					
<b>Total</b>	<b>18,20,302</b>	<b>3,17,401</b>	<b>17.44</b>	<b>1,38,364</b>	<b>7.60</b>
Group 'D'	36,030	23,309	64.69	1,492	4.14
(Safai Karamcharis)					
<b>Grand Total</b>	<b>18,56,332</b>	<b>3,40,710</b>	<b>18.35</b>	<b>1,39,856</b>	<b>7.53</b>

Group	Total No. of Employees	Representation of SCs/STs/OBCs				
		SCs No.	%	STs No.	%	OBCs No.
1	2	3	4	5	6	7
As on 1.1.2013 (Based on information furnished by 182 Enterprises)						
Group 'A'	162384	23751	14.63	8895	5.48	19604
Group 'B'	145356	21204	14.59	11345	7.80	13553
Group 'C'	465595	91786	19.71	50130	10.77	80582
Group 'D' (Excluding Safai karamcharis)	178494	36409	20.40	27126	15.19	34002
<b>Total</b>	<b>951829</b>	<b>173150</b>	<b>18.19</b>	<b>97496</b>	<b>10.24</b>	<b>147741</b>
Group 'D'	7030	5412	76.98	186	2.64	411
(Safai Karamcharis)						
<b>Grand Total</b>	<b>958859</b>	<b>178562</b>	<b>18.62</b>	<b>97682</b>	<b>10.19</b>	<b>148152</b>

Group	Total No. of Employees	Representation of SCs/STs/OBCs				
		SCs No.	%	STs No.	%	OBCs No.
1	2	3	4	5	6	7
As on 1.1.2012 (Based on information furnished by 214 Enterprises)						
Group 'A'	197013	28819	14.63	10630	5.39	22259
Group 'B'	151870	22077	14.54	11297	7.44	14162
Group 'C'	519050	101106	19.47	53024	10.21	88685
Group 'D' (Excluding Safai karamcharis)	198538	39941	20.11	27246	13.72	37060
<b>Total</b>	<b>1066471</b>	<b>191943</b>	<b>17.99</b>	<b>102197</b>	<b>9.58</b>	<b>162166</b>
Group 'D'	9668	6478	66.99	275	2.85	330
(Safai Karamcharis)						
<b>Grand Total</b>	<b>1076139</b>	<b>198421</b>	<b>18.44</b>	<b>102472</b>	<b>9.52</b>	<b>162496</b>

## Chapter 7

# DELEGATION OF ENHANCED FINANCIAL POWERS TO CPSEs

The Board of Directors of a CPSE exercises the delegated powers subject to broad policy guidelines issued by Government from time to time. The Government has granted enhanced powers to the Boards of 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 February, 2010 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:-

- (a) Having Navratna status
- (b) Listed on Indian stock exchange, with minimum prescribed public shareholding under SEBI regulations

### 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.

#### 7.2.2 Delegation of Powers to Navratna CPSEs

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

- (c) An average annual turnover during the last 3 years of more than ₹25,000 crore
- (d) An average annual net worth during the last 3 years of more than ₹15,000 crore
- (f) An average annual net profit after tax during the last 3 years of more than ₹5,000 crore
- (g) 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) Indian Oil Corporation Limited, (ii) NTPC Limited, (iii) Oil & Natural Gas Corporation Limited and (iv) Steel Authority of India Limited in May, 2010 and (v) Coal India Limited in April, 2011. During the year 2012-13, 2 CPSEs, namely, Bharat Heavy Electricals Limited and GAIL(India) Limited were granted Maharatna status taking the number of Maharatna CPSEs to seven.

**7.2.1 As per the criteria laid down by the Government, Miniratna Category – 1 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.**

- (i) **Capital Expenditure :-** The Navratna CPSEs have the powers to incur capital expenditure on purchase of new items or for replacement, without any monetary ceiling.
- (ii) **Technology Joint Ventures and Strategic Alliances :-** The Navratna CPSEs have the powers to enter into technology joint ventures or strategic alliances and obtain, by purchase or other arrangements, technology and know-how.
- (iii) **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.
- (iv) **Human Resources Management:-** The Navratna CPSEs have been empowered to create and wind up all posts up to E-6 level and make all appointments up to this level. The Boards of these CPSEs have further been empowered to effect internal transfers and re-designation of posts. The Board of Directors of Navratna CPSEs have the power to further delegate the powers relating to Human Resource Management (appointments, transfer, posting, etc.) of below Board level executives to sub-committees of the Board or to executives of the CPSE, as may be decided by the Board of the CPSE.
- (v) **Resource Mobilization: -** These CPSEs have been empowered to raise debt from the domestic capital markets and for borrowings from international market, subject to condition that approval of RBI/Department of Economic Affairs, as may be required, should be obtained through the administrative Ministry.
- (vi) **Joint ventures and Subsidiaries :-** The Navratna CPSEs have been delegated powers to establish financial joint ventures and wholly owned subsidiaries in India or abroad with the stipulation that the equity investment of the CPSE should be limited to the following: -
  - i. ₹ 1000 crore in any one project,
  - ii. 15% of the net worth of the CPSE in one project,
  - iii. 30% of the net worth of the CPSE in all joint ventures/ subsidiaries put together.

#### (vii) Mergers 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 provision 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 14 Navratna CPSEs as under:

- (i) Bharat Electronics Limited
- (ii) Bharat Petroleum Corporation Limited
- (iii) Hindustan Aeronautics Limited
- (iv) Hindustan Petroleum Corporation Limited
- (v) Mahanagar Telephone Nigam Limited
- (vi) National Aluminium Company Limited
- (vii) Neyveli Lignite Corporation Limited
- (viii) NMDC Limited
- (ix) Oil India Limited
- (x) Power Finance Corporation Limited

- (xi) Power Grid Corporation of India Limited
- (xii) Rashtriya Ispat Nigam Limited
- (xiii) Rural Electrification Corporation Limited
- (xiv) Shipping Corporation of India Limited

During the year 2012-13, the orders for continuation of Navratna status of RINL till its listing with an extended target date of 16.11.2013 were issued.

## 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.

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

Presently (as on 30.11.2013), there are 71 Miniratna CPSEs (54 Category-I and 17 Category-II). The list of these 71 Miniratna CPSEs is enclosed at **Annex 7.1**.

## 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.

## Annex 7.1

### List of Miniratna CPSEs

## Miniratna Category - I CPSEs

- ### Miniratna Category-II CPSEs

## Chapter 8

# 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 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 petro-chemicals.

### 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 however continues to have control over these enterprises, through ‘a priori supervision’ by ‘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 their 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, a neutral and independent body of experts constituted by DPE assists the Department in the process of 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 of former Civil Servants, ex-CMDs of the Public Enterprises, finance professionals, and domain experts or academicians selected by DPE. Currently, apart from chairman there are 65 Task Force (TF) members who are divided into 13 Syndicate Groups covering different sectors. Each Syndicate consists of 5 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. DPE issues the Minutes of MoU negotiation meetings to the CPSEs (and the Ministry/Department concerned) for finalizing the MoUs which are then authenticated by DPE to ensure MoUs 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 of 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 broadly encompass the following :

- a. To improve the performance of public sector enterprises by increasing autonomy of the 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 comprises of MoU Awards. These awards are also an expression of commitment of the policy makers to the MoU system. Best performing CPSEs are awarded with the MoU Excellence Awards, the remaining CPSEs achieving excellent ratings 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 Setting of 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 directly and subsequently 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 by Task Force with the Administrative ministries /CPSEs (January – March ) each year.
- (vi). Preparation and circulation of the Minutes.
- (vii). Submission of the draft MoU by the CPSE on the basis of Minutes.
- (viii) Vetting of MoU by DPE as submitted by CPSE through administrative Ministry on the basis of minutes .
- (ix). All MoUs have to be signed before 31st March of every year.

### 8.4.2 MoU Methodology and Evaluation

The MoU system was revamped in 1989 and was modelled on 'the signaling system' using the five-point scale of performance measurement, that is, 'excellent', 'very good', 'good', 'average' and 'poor'. This was further refined in 2004-05 utilising 'the balanced score card' methodology. Under the MoU Guidelines for the year 2012-13, 'financial' and 'non-financial' parameters are assigned equal weightage (50%) for all CPSEs except section 25 CPSEs and sick & Loss making CPSEs where they are assigned weightages of 40% and 60% respectively. 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 (also called dynamic parameters) are of three kinds, namely, dynamic parameters, sector specific mandatory parameters and enterprise specific parameters. 'Non-financial parameters' (also called dynamic parameters) include project implementation quality of products and services, customer satisfaction, extent of globalization, adoption of innovative practices etc. The 'sector-specific' parameters refer to macroeconomic factors like change in demand and supply, price fluctuations, variation in interest rates etc, (while the 'enterprise-specific' parameters relate to issues such as safety and pollution etc. Each of these performance targets for MoUs are framed on the five point scale. In MoU 2012-13 Corporate Social Responsibility (5% weightage), R&D (5% weightage) Sustainable Development (5% weightage), HRM (5% weightage), corporate governance (5% weightage), compliance to DPE guidelines are mandatory parameters.

Comprehensive Guidelines with Templates for objective evaluation has been issued for these elements of MoU. It is stipulated that non financial parameters should be consistent with the proposed Annual Plan/Annual Budget and Corporate Plan of the CPSE. Major ongoing projects being monitored by the Ministry of Statistics and Programme Implementation are to be included as MoU parameters. Listing by CPSEs has been incentivized in MoU. Investment Plans and CAPEX of 17 select CPSEs for the year 2012-13 have been included under the MoU framework.

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
4.51-5.00	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 196 CPSEs in the year 2012-13. Table 8.1 below provides the coverage of CPSEs over the years under the MoU system.

Year	No. of MOU's signed	Year	No. of MOU's signed
1987-88	4	2006-07	113
1991-92	72	2007-08	144
2001-02	104	2008-09	147
2002-03	100	2009-10	197
2003-04	96	2010-11	198
2004-05	99	2011-12	197
2005-06	102	2012-13	196

*\* 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..*

### 8.6 MoU ratings of CPSEs

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

Rating	2007-08	2009-10	2010-11	2011-12	2012-13
Excellent	47	74	67	76	75
Very Good	34	30	44	39	39
Good	25	20	24	33	37 + 1 *
Fair	17	20	24	25	36
Poor	01	01	02	02	02
Total	124	145	161	175	190

\* Provisional

## Chapter 9

# Research & Development

The pressures of competition and a dynamic globalised business environment has made continuous up-gradation and development of products, processes and services imperative for survival and growth of CPSEs. Research and Development (R&D) contribute substantially towards achieving these goals. In the face of rapid technological advancements, 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, others undertake research through sponsoring or 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 activities in CPSEs

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 CENTRAL MINE PLANNING & DESIGN INSTITUTE LIMITED

CMPDIL is the nodal agency for S&T Projects sponsored by Ministry of Coal and R&D projects executed by CIL. Over

the past 38 years, CMPDI has worked for the betterment of the mining industry through technology and innovation, and worked hand-in-hand with companies on a regular basis to help them convert research achievements into business success. During 2012-13, 9 R&D and S&T projects were completed. The completed projects were pertaining to Coal Mine Methane (CMM)/Abandoned Mine Methane (AMM), GPS based production reporting system in opencast mine of CIL, generation/analysis of coalfield wise database of physico-mechanical characteristics of rock/coal and representative numerical models for solution to strata control problems, development and optimisation of coal bed recovery process for CO<sub>2</sub> sequestration, development of indigenous tool for random sampling & testing of explosives and accessories used in mines, etc. Some of the ongoing research projects relate to demonstration of coal beneficiation system using radiometric technique, assessment of prospect of shalgas in Gondwana basin, integrated communication system to communicate and locate trapped under ground mines etc.

##### 9.1.2 NEYVELI LIGNITE CORPORATION LTD.

The corrosion estimation and laboratory modeling of corrosion mechanism were extensively studied in the Coal S and T Project "Development of customized Organic Coatings for corrosion protection of Specialized Mining Equipment (SME) at Neyveli Lignite Mines" in collaboration with Central Electro Chemical Research Institute (CECRI) Karaikudi. A new project "Enhancing Life of De watering pipes Coal Lignite Mines by prevention of Erosion Corrosion with Nano Crystalline surface Engineering Treatments" has been sanctioned with a total outlay of ₹293.99 lakh and a project duration of 4 years.

#### 9.2 Electricity

##### 9.2.1 NHPC LTD.

**Specific areas in which Research and Development was carried out include:**

- Techniques developed in-house to overcome the problem of seepage in reservoirs and structures.
- Development of a Hard Coating Facility for which DPR has been prepared.

- Computational fluid dynamics of water flowing through the penstocks to implement and suggest remedial measures to stop seepage in existing dams and preventive measures in dams under construction.
- A National Perspective Plan (NPP) prepared for Research and Development projects-“Development of Silt Erosion Resistant Material for Turbine of Hydro Generators”.
- Undertaking National Perspective Plan (NPP) projects sponsored by CPRI for carrying out R&D in “Tunneling in water charged zones under high hydrostatic pressure”.

### 9.2.2 NTPC LIMITED

NTPC Energy Technology Research Alliance (NETRA), the R&D wing of NTPC focuses on areas of efficiency & availability development improvement, cost reduction, renewable and alternative energy source, climate change & environment protection, and providing scientific support to utilities.

Research Advisory Council (RAC) of NETRA comprising of eminent scientists and experts from India and abroad is also in place to steer high-end research. Scientific Advisory Council (SAC) with Regional Executive Directors as its members provides directions for improving plant performance & reducing cost of generation. The meetings for both these advisory councils were held periodically where members deliberated on various project activities and gave guidelines for implementation of suggestions.

In order to provide maximum possible benefits to the stations, projects like artificial intelligence based plant performance advisory system, expert system for real time monitoring of steam cycle chemistry, computational fluid dynamics (CFD) modeling based plant improvement for increasing efficiency and reducing auxiliary power consumption have been tested successfully at stations. One patent (01) has been granted to NETRA and another Twenty one (21) patent applications are in advanced stage of processing. NETRA continued to provide scientific support to all NTPC stations as well as many other utilities stations to improve their performance.

Some state-of-the art facilities for condition monitoring and diagnostic equipments like Scanning Electron Microscope with EDAX, Sixteen Channel Vibration Analyzer, Video image scope system with dimensional measurement facility, etc have been inducted.

The phase-II infrastructure is being created for new

laboratories and facilities like pilot plant bay, 150 kw solar PV rooftop systems and an auditorium with seating capacity of 400 persons.

NETRA has also taken research projects under “National Clean Energy Fund” namely the Solar Thermal Hybrid with Fossil Fired Power Plant and Fuel Gas based Aqua Ammonia Power Cycle.

### 9.2.3 SJVN Limited

The areas taken up are as follows:

- A) Development of High Strength Concrete with reference to SJVN’S projects:

The purpose of this R&D study was to establish the applicability of High Strength Concrete in different types of structures like Silt Flushing Tunnels, Sluice Glacis in dam structures etc. which are subject to very high abrasive forces thereby requiring costly annual maintenance. Based upon the various tests (as per IS codes) like compression test, flexural test, split tensile strength, modulus of elasticity etc these mixes have been established. An extended study for the performance tests for these mixes and also for higher grades (M: 90 and M: 100) has also been started. Once the mixes are established w.r.t. the performance tests also, they can be used in the upcoming projects of SJVN.

- A field application using High Strength Concrete with synthetic fibers for highly erosion prone areas of Piers of Bay No. 4 & 5 at Nathpa Dam has also been done through an external agency which gives a performance guarantee of 5 years.
- B) Study of Self Compacting Concrete.
    - R&D study has been done to develop self compacting concrete for its application in areas where there is congestion of reinforcement, areas requiring complex form works and also in inaccessible areas like behind the pressure shaft liners. Based upon various tests like compression test, flexural test, split tensile strength, modulus of elasticity, slump flow test, V-funnel test and L-Box test the mixes have been established.
  - C) Study of performance of different type of Rock Bolts in different kind of Rock Strata for standardization.
    - This R&D study had been carried out in order to standardize the application of specific rock bolts as per the Geology. As per this study numerous types of rocks bolts being used these days had been installed and tested in each geological condition. Based upon the pull out tests the effectiveness of

rock bolts had been checked. Depending upon the Geological base line report this study can help in selection of rock bolting systems more precisely during DPR stage and their application during construction.

D) Study to improve quality of survey & investigation for DPR preparation.

- This study has been done in order to improve the quality of survey and investigation for DPR preparation thus minimizing the delays in construction of projects due to geological uncertainties.

The study involved latest technologies available in the field of surveying like GPS (Global positioning system, Total Station and LIDAR (light detection and ranging). It also included study of latest trends/ techniques in various types of surveys related to Hydrology, Topography, catchment area and various investigations like surface and subsurface investigations. General recommendations for incorporating more details by the means of improved quality of Survey & Investigation have been given so as to prepare a bankable DPR.

### 9.3 Crude Oil

#### 9.3.1 ONGC LIMITED

Specific areas in which R&D was carried out are as follows:

- High Resolution Molecular Stratigraphy in depositional sequences with mature source rocks in key wells in Indian sedimentary basins.
- Identification of suitable chemical additives for flow assurance of crude oil from major surface flow line to CTF of Mehsana Asset.
- Assessment of Disproportionate Permeability Reduction (DPR) by various pore filling polymer gels for rig-less water shutoff jobs.
- Integrated geological and geophysical studies for depositional framework and hydrocarbon prospectivity of Cretaceous and older sediments to the south of Poduru-Draksharama high in Vygreswaram North Pasarlupudi-Kottalanka area and Amlapuram Block in Krishna Godavari (KG) basin.
- Depositional architecture and Sediment dispersal pattern in the deep and ultra-deep-water in KG Basin and its integration with shallow water and onshore.
- Sedimentation pattern, morphology and their distribution within different stratigraphic levels in Mahanadi Basin

based on understanding of interpretation of 3D & 2D data.

- Gravity atlas of India has been prepared for onshore and offshore areas consisting of one integrated map and 82 smaller maps.
- 2D & 3D Move-based structural modeling along key profiles in Kutch Offshore.
- 2D-Move based structural modeling of Chambal and Son Valley sectors of Vindhyan Basin.
- Petroleum systems modeling in western NELP-VIII Blocks west of Accretionary Prism in Andaman Basin.
- Tectono-Sedimentary evolution of Kutch-Saurashtra Basin involving onshore and offshore areas depicting relationships to Cambay rift & Nagar Parkar fault.
- Evaluation of thin pays/ invasion for better productivity with the application of log-data recorded in four wells of HP/HT regime of KG Basin using UTAP WeLS Simulation software..
- Field application of various MEOR processes in the different fields like Mehsana and Ankleshwar area. Jobs included Paraffin Degrading Bacterial (PDB), mitigation of Wax deposition problem and field trial of high temperature (96°C) microbial system for enhanced oil recovery.
- Developing specifications for composite material downhole casing for highly corrosive wells in onshore Assets.
- Studies on Binary Hydrates for application in storage and transportation of methane gas.
- Studies on the effects of gas hydrate dissociation on sea floor stability.
- Studies on the thermodynamics and kinetics of Carbon Dioxide Hydrate formation and dissociation and its structural characterization.
- Soil classification from PCPT DATA with special reference to Indian offshore areas. Evaluation of soil design parameters using PCPT data with emphasis on application in Indian waters.
- Development of Viscoelastic Surfactants Based Self-diverting Acid (VSDA)
- Application of new Well bore cleaning system in Horizontal wells
- Gelled emulsified acid system for carbonate reservoir"- Patent applied for Indigenous development and installation of Venturi type Surface Chokes for stabilized flow in Oil & Gas wells.

#### 9.3.2 Oil India Limited

Important areas in which Research and Development have been carried out are as follows:

1. Study on contamination of LWC in formation fluids and its

effect on interpretation of results of geochemical analysis of SWC.

2. Study on Treatment Design of OIL's Water Injection System.
3. Establishment of State-of-the-art Biotechnology Laboratory in R&D Department.
4. Consultancy services for flow assurance in Duliajan- Digboi branch pipeline.
5. Development of indigenous bacterial strains suitable for MEOR process.
6. Reservoir Fluid Identification through Geochemical Analysis of Sidewall Cores.
7. Source Rock Distribution and Characteristics of the Tertiary Stratigraphic Column Encountered in Murkongselek Well No.1 (Loc. MSD).
8. Surface Geochemical Analysis on Absorbed Soil Gas Method.
9. Corrosion control in Intermediate Tank Farm (ITF), Tengakhat.
10. Study on Injection water quality improvement & Corrosion monitoring.
11. Microbial Paraffin Control job in oil wells.
12. Development of Bactericides and Scale Inhibitor.
13. Investigations on the dissolution of tank bottom sludge using environment friendly ionic liquids.
14. Testing and development of oilfield chemicals.
15. Development of ASP formulation for ASP.
16. Creation of data bank with respect to IFTs of crude of OIL's wells at 60° and 80°C.
18. Laboratory and Simulation Study for Feasibility of Alkaline Surfactant Polymer (ASP) / Surfactant Polymer (SP) / Alkali Surfactant (AS) Flooding in OIL's Reservoirs.
19. Studies on Interfacial Properties, Wettability Alteration and Rheological Behavior of Nanoparticle Stabilized Microemulsions for its use in Enhanced Oil Recovery.
20. Bioremediation of Oily Sludge of Various Productions Pits of OIL Fields (Assam).

## 9.4 Petroleum

### 9.4.1 Bharat Petroleum Corporation Limited

The R&D Centres of the company are actively involved in supporting the businesses through constant advanced technical support and novel product/process technology development in niche areas leading to new business development. The core research areas are broadly divided into four categories, namely Refinery process upgradation/optimization, development of novel energy efficient technologies, product development and alternative fuels and energy. R&D programmes during the year continued to provide a competitive advantage to business operations through development and commercialization of cost effective and competitive products and processes such as (i) CO and NO<sub>x</sub> reduction catalyst additive (ii) Processing

Vegetable Oil in the existing Refinery Hydrotreater (iii) VG 22 grade Refrigeration Compressor Oil (iv) Nano-adsorbent for in-situ CO<sub>2</sub> uptake during the steam Methane reforming process (v) New correlation model for prediction of pourpoint for heavy products like FO/LSHS (vi) Novel adsorbent recipe for ANG storage and (vii) New CO-based catalyst for FT synthesis process etc. The cost effective process for the production of bio-degradable synthetic Lube Base Oil developed earlier, is being scaled up for commercial exploitation.

During the year, the R&D Centre at Sewree developed new products including Original Equipment Specific High Performance Passenger Car Engine Oil, Semi-Synthetic 4T Engine Oil, High Performance Hydraulic Oil, Super Tractor Oil Universal, environment friendly Cutting Oil & Defence Specific Hydraulic Oil. The alternate formulations developed have helped in improving operational flexibility, besides reducing input/operating costs.

### 9.4.2 Chennai Petroleum Corporation Limited

The company successfully carried out trial run of co-processing Vegetable oil (Jatropha) along with Diesel by IOC R&D in Plant 13, VGO Hydrotreater. The technology of co-processing of vegetable oils developed by IOC R&D was commercialized in Vacuum Distillates HDS unit. This process has several advantages such as improved cetane and oxidation stability over conventional bio-diesel production.

Studies were conducted on high-pressure Autoclave unit for thermo chemical conversion of Algae for production of Bio Crudes.

The Company is also collaborating with M/s. Sud-Chemie India Ltd., for developing Naphtha Hydro Treating Catalyst with HDS activity in order to reduce the sulphur content in the treated Naphtha to less than 1 PPM.

### 9.4.3 Hindustan Petroleum Corporation Limited (HPCL):

Research & Development is envisaged to provide support to the Refineries and Marketing divisions for potential improvement, absorption of new technologies, developing innovative & path breaking technologies, license technologies and support external organizations and develop over long term into a knowledge hub.

To realize this objective HPCL is putting up a R&D centre at Bengaluru with an investment of ₹312 Crore and this centre will be involved in carrying out Research & Development activities in refinery technologies, nano-technology applications and also bio-fuels.

HPCL R&D has also undertaken collaborative R&D projects with various premier institutes like IISC-Bangalore, IIT-Delhi, IIT-Madras, TERI-New Delhi, CIMFR-Dhanbad, GITAM university- Visakhapatnam, Jawaharlal Nehru Centre for Advance Scientific Research-Bangalore, PoornaPrajna Institute of Scientific Research (PPISR) and joint collaboration projects with IIT-Kanpur & Chevron-USA. The areas of research undertaken are related to Process intensification, Nano Catalysts, CO<sub>2</sub> Capture &Utilisation, Hydrogen production, purification & storage, Residue up gradation, improved Lubricants, Bio Fuels development and Development of catalysts for Refinery processes.

#### 9.4.4 Indian Oil Corporation Ltd

The Corporation places significant thrust on knowledge and research based growth. Investment in proprietary research in lubricants, catalyst, refinery and pipelines operations, and product offerings is viewed as a thrust area for the Corporation.

Lubricant Technology research continues to pay rich dividends in terms of new generation product development with 120 new formulations during the year resulting in 43 OEM approvals, including approval for a diesel engine oil, marine oil and transformer oil from reputed customers. 52 patent applications were filed during the year, while eight patents were granted.

### 9.5 Other Minerals & Metals

#### 9.5.1 Moil India Limited

A collaborative research study is going on for use of overburden material for consolidated hydraulic stowing operation for the underground mining operation with Visvesvaraya National Institute Technology, Nagpur. Pilot hydraulic stowing plant has been commissioned at VNIT premises for further studies. This will help to reduce the consumption of sand for filling purpose in the underground mines of the Company. In turn it will reduce the sand mining in future years.

- Indian Institute of Technology (IIT), Kharagpur has been engaged for design of safe blasting for Single Boomer at Balaghat Mine.
- Modern environmental friendly hydro-static drill machines have been deployed in open cast mine of Dongri Buzurg.
- Hydro-geological studies for stop design in underground mining operations at Kandri Mine is being carried out by Central Institute of Mining & Fuel Research, Dhanbad for better safety & productivity.

#### 9.5.2 NALCO Ltd

NALCO's in-house R&D units located at its refinery & smelter complexes have been recognized by DSIR. Further, NALCO is setting up of its world class Research & Technology Center at Bhubaneswar with an investment of ₹88 crore. A description of the activities are as follows:

#### In-house R&D Activities

##### Alumina Plant

- i. Installation of heating bundles in pre desilication tank. (one tank completed-performance is satisfactory)
- ii. Extraction of vanadium sludge from process liquor.
- iii. Rectification of Rotary kiln to produce Low high Alpha special alumina for ceramic use.
- iv. Laboratory scale studies were carried out along with the suppliers of various flocculants for use in High Rate thickeners and Deep cone washers of New stream.

##### Smelter Plant

- i. Regular characterization of baked anode and monitoring of its quality.
- ii. Studies for improvement in quality of raw materials to carbon plant.
- iii. Anode bench scale studies for anode quality improvement.
- iv. Regular metallographic studies of cast products for quality improvement.
- v. Trial undertaken for development of new products from rolled aluminum sheet.

Collaborative R&D Activities:

**Some of the collaborative R&D work is as follows:**

##### Studies completed on

- i. Plasma smelting of Red mud for production of pig/Cast iron and Alumina rich slag in collaboration with IMMT, BBSR.
- ii. Preparation of Low Ferric alum from waste aluminum dross
- iii. Development of Light weight aggregates from Red mud
- iv. Bench scale studies for Development of Glass Ceramics from Red mud
- v. Lab scale study on alumina tri-hydrate productivity using catalyst by IMMT, BBSR

## 9.6 Steel

### 9.6.1 MishraDhatu Nigam Limited:

Developments of new products through R&D efforts include:

- Development of Superni 750MW for Semi Cryogenic Engine (Aerospace)
- Development of different variants of Martensitic PH steel 11-10PH, for missile applications (Aerospace)
- Development of Martensitic (09X16H4b) and Austenitic Steel (15X18H12C4T) for BRAHMOS as well as Semi Cryogenic Engine (Aerospace)
- Development of Superfer 861 for Aerospace.
- Development of BT-16 titanium alloy for Aerospace.
- Development of different variants of Higher Strength Low alloy weldable steel (AB3) for marine structural application (Naval Systems).
- Development of higher strength Maraging steels equivalent of Maraging 400/Maraging 500 for strategic Defence application.
- Development of Superni 617CC (Super Alloy) for ultra Super Critical Power.
- Development of MDN304 HCU Special stainless steel for Ultra Super Critical Power Plant.
- Development of special stainless steel (304HCu) and advanced SUPERALLOYS (Superni 617CC and Superni 740) for Advanced Ultra Super Critical (AUSC) Power plants (Power Sectors)
- Development of Titan 31 rings for aerospace application is Solution Treated and Aged (STA) condition.
- Development of Special Martensic Stainless Steel 09 X16H4B for semi cryogenic Engine.
- Development of Aluminum Lithium alloy on pilot scale.

### 9.6.2 SAIL:

Research and 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. In the financial year 2012-13, RDCIS completed 55 projects.

During the year, the Centre (In association with SAIL Plants) has filed 35 patents and 35 copyrights. As many as 91 technical papers (24 international) were published and 174 papers (85 international) were presented. In addition, RDCIS undertook contract research work and provided significant consultancy services and know-how to organisations outside SAIL, yielding external earning of ₹ 220.33 lakh.

### 9.6.3 FERRO SCRAP NIGAM LIMITED

Fe-enrichment of Steel scrap fines below 10mm size has been undertaken as R&D project in three phases. The 1st phase of the project has been completed. The 2nd phase i.e., installation of pilot plant at lab level for enhancing Fe content in scrap fines below 10mm size has been planned for the year 2013-14.

## 9.7 Fertilizer

### 9.7.1 RASHTRIYA CHEMICALS AND FERTILIZERS LTD.

The company has taken up several R and D Projects like fortified Urea, Development of Sulphur Oxidizing Bacteria as bio fertilizers. The company has also signed MOU with the Institute of Chemical Technology Mumbai, a premier Institute of Chemical Engineering and Technology to carry out collaborative Research for Improvements in Areas of such as energy optimization, effluent treatment, environmental engineering and quality improvement in the field of fertilizers Technology that would benefit company.

## 9.8 Heavy Engineering

### 9.8.1 BHEL Ltd:

BHEL places strong emphasis on innovation and creative development of new technologies. R&D efforts are aimed not only at improving the performance and efficiency of the existing products, but also at using state-of-the-art technologies and processes to develop new products.

Accordingly BHEL pursued two pronged strategy namely; aggressive in-house efforts and encouraging innovation which is in line with the “Decade of Innovations (2010-2020)” declared by Govt. of India. As a result, R&D spend of the company has registered 4.4% growth over last financial year (from ₹1199 Crore to ₹1252 Crore (actual) and associated turnover from In-house developed products and services clocking turnover of ₹9643 Crore, which is approx

19% of the total turnover of the company. BHEL's efforts for encouraging innovation have resulted in raising BHEL's IPR capital tally to 2170 as on date with highest ever IP ₹(385 Nos) filed this year

### 9.8.2 Hindustan Aeronautic Limited :

The Company recognizes that strong R&D orientation is the key to achieving the objective and goal of becoming a significant global player in the Aerospace Industry. Accordingly, the R&D Policy has been reviewed.

The Company has signed MoUs with academic institutions, namely, Indian Institute of Science, Bangalore, Indian Institutes of Technology (IITs) - Chennai & Kanpur, for undertaking joint research in the areas of micro UAVs, Aerospace Transmission System and Aero Elastic Code for predicting helicopter rotor vibrator loads, respectively.

## 9.9 Medium & Light Engineering

### 9.9.1 BHARAT ELECTRONICS LTD.

R and D Divisions of BEL continued to actively interact with the National Labs, namely, DRDO, ISRO, CSIR, C DAC, C DOT and leading academic institutions like IITs, NITs and IISC for the development of specialized indigenous technologies. Investment for a Centralized Product Development Centre has been approved by the Board and plans are under formulation. Core Group has been formed to address Homeland Security Business.

### 9.9.2 ELECTRONICS CORPORATION OF INDIA LIMITED

#### Specific areas in which R&D is carried out:

- i. Airborne Satcom Links
- ii. Transportable Ship borne Terminals for Mars Mission
- iii. Electronic Voting Machine – Mark V
- iv. RFID Smart Card Readers
- v. Gyro for T90S Tank Stabilizing System
- vi. OLE for process Protocol Development
- vii. Single phase Smart Meter
- viii. Digital Notch Indicator for electric locomotives
- ix. Smart Card Management System

### 9.9.3 BEL OPTRONIC DEVICES LTD

Specific areas in which R&D was carried out are :

- Development of Automated Test Equipment for Gain-EBI measurement of 18mm I.I. Tube

- Up gradation of Vacuum Furnace (LT) using SCADA System
- Process improvements
- Re-design of Exhaust Assembly of 25mm I.I. Tube to improve Vacuum Pumping Speed
- The company has increased FTP of 25mm Envelope-I and Cathode faceplate Assembly from 83% to 88%.

## 9.10 Transport Equipment

### 9.10.1 Cochin Shipyard Limited :

In-house R&D activities have been undertaken in the areas of welding and design. R&D activities were mainly focused on development of suitable welding procedures for Marine Aluminium Fabrication. Considerable efforts have been put into the development of weld procedures with double pulsing power sources which helped in producing defect free and excellent weld joints in Marine Grade Aluminium.

### 9.10.2 BEML LIMITED

#### SPECIFIC AREAS IN WHICH R&D CARRIED OUT BY THE COMPANY:

The R&D at BEML has designed and developed number of high technology products and aggregates for Construction & Mining, Rail & Metro and Defence sectors as per customer requirements without any collaboration and the same have been manufactured and launched for customer trials. Depending on the sectoral needs for the year 2012-13, BEML has launched the following products / projects:

(a) 180 ton Electrical Excavator, BE1800E : BEML BE1800E electrical excavator is packed with leading-edge technologies and offers a host of advantages including superior controllability, mobility, durability, maintainability and operator's comfort apart from low operating cost. The electrical excavator is cost-efficient and emission-free alternative to the engine driven excavator.

(b) 150 ton Electric Dump Truck, BH150E: BH150E is a 150 ton class electric dump truck on par with international standards. It is equipped with Electronic engine along with reliable Electrical Drive System. The equipment is successfully designed, developed and tested thoroughly and fine-tuned for optimized performance. With the above achievement, BEML has become the 6th OE Electric Dump Truck manufacturer in the World.

(c) Design and Development of Jaipur Metro cars: The R&D, Bangalore Complex has successfully designed and developed the Metro Cars for Jaipur Metro city against the

order from DMRC for 40 Metro cars. For the first time in the country, BEML has designed and developed the metro trains without any collaboration with a foreign firm. The Jaipur Metro Cars are state-of-the-art stainless steel crashworthy cars fully air-conditioned with aesthetic GRP interiors, automatic doors providing maximum comfort and safety to the passengers.

### 9.10.3 Goa Shipyard Limited

GSL's main R&D thrust is in the field of Ship design and development. All the vessels that are presently under construction are of in-house R&D efforts of GSL. GSL is one of the few shipyards which have capacity and capability to carry out basic design of ships. Over the years, GSL have proved its capability to design and construct advanced & sophisticated Patrol Vessels.

As part of ongoing R&D activity and to meet requirement of the Indian Defence Forces, as well as anticipated demand in the international market, the following in-house design work has been undertaken and is in progress:

- (a) Design of 110m Platform: Preliminary design work has been completed. This design can also be adopted for high speed corvettes and light frigates for Indian Navy's requirement and overseas customers.
- (b) Design of 75m Patrol Vessel: This vessel will have

stealth features with low radar signature. The hull form can be adjusted for missile corvettes and similar frontline ships.

- (c) Improvisation of 105 mtr OPV design for improving fuel efficiency, and additions of more features like quick response boats.
- (d) The design of Patrol vessels / Interceptor crafts of about 29m are also in progress.
- (e) The R&D activity on a new Anti-submarine warfare, shallow water craft is in progress.

## 9.11 Consumer Goods

### 9.11.1 HLL Life care Limited:

Some of the important activities are as follows:

- Developed non-absorbable Hernia Mesh, a product that complements Surgical Suture by strengthening the hernia repair and reduces the rate of recurrence. Surgical mesh is a medical device that is used to provide additional support to weakened or damaged tissue.
- Developed a new variant of intra uterine device named E-care to provide more option to prospective consumers.
- Developed 12 new products for Formulations Unit.

## CHAPTER 10

# MEGA AND MAJOR PROJECTS UNDER IMPLEMENTATION

There were altogether 587 projects under implementation in the central sector as on 31.3.2013. Out of these 587 projects, 215 projects were Mega projects (each costing ₹ 1,000 crore and above) and 372 Major projects (each costing between ₹ 150 crore and ₹ 1000 crore). The total estimated cost of these 587 projects works out to be ₹ 9,69,361.89 crores. The total expenditure incurred on 587 projects until 31.03.2013 stands at ₹ 4,70,966.69 cores, which is 48.58% of the total estimated cost of these projects.

Out of these 587 projects in the central sector, 190 projects (costing ₹ 500 crores and above) belonged to Central Public Sector Enterprises (CPSEs). Of these 190 projects, 137 were Mega projects and 53 were Major projects (costing ₹ 500 crore and above to less than ₹ 1000 crore). The total

original cost in respect of these 190 projects of CPSEs stood at ₹ 5,86,537.02 crore, while the revised / estimated completion cost is equal to ₹ 6,32,150.37 crore, showing a cost overrun of around 8 %.

Sector wise status of these Mega and Major projects of CPSEs indicating the names of projects, their location, capacity, date of approval, physical progress, date of commissioning together with anticipated date of completion and cost of the project (original and anticipated) as per the data received from 'Project Implementation Status Report of Central Sector Projects' published by Ministry of Statistics and Programme Implementation are discussed in the paragraphs below.

### 10.1 Atomic Energy

There were 5 projects in the atomic Energy sector under implementation as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 47,832.29 Crores and the expenditure incurred on these projects till March 2013

was ₹ 22,052.72 Crores which is 53.08% of the cost. These projects belonged to the Nuclear Power Corporation of India Limited, Uranium Corporation of India Ltd. and Bhavini Limited, and costs of each is 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 / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Kudankulam App, Kudankulam, Tamil Nadu	MW 2 x 1000	12/2001	12/2008 (3/2013)	13171.00 (17270.00)	97.37
2.	Kakrapar Atomic Power Project- 3 & 4, Gujrat	MW 2 x 700	10/2009	12/2015 (11/2016)	11459.00 (11459.00)	35.30
3.	Rajasthan Atomic Power Project-7 & 8 , Rjasthan	MW 2 x 700	10/2009	12/2016 (03/2017)	12320.00 (12320.00)	23.80

### 10.1.2 Uranium Corporation of India Limited. (UCIL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Uranium Ore Mine & Processing Plant at Tummaalapalle, Andhra Pradesh	3000 TPD	9/2007	4/2011 (2/2013)	1106.29 (1106.29)	100

### 10.1.3 Bhavini Limited

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Prototype Fast Breeder Reactor, Kalpakkam, Tamil Nadu	MWe 500	9/2003	9/2010 (N.A)	3492.00 (5677.00)	94.80

## 10.2 Civil Aviation

There were 6 projects in the civil aviation sector under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 6063.07 crore

and the expenditure incurred on these projects till March 2013 was ₹ 4215.83 crore. Out of the 6 projects, 2 were in Mega category and 1 in Major category. All these projects belonged to Airport Authority of India Limited. Details of the 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 / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Dev. of Kamraj Domestic Ter-Ph-II & Exp. Anna Int. Ter Bldg (KI), Tamil Nadu	1 x 16.84 ML	08/2008	01/2011 (01/2012)	1808.00 (2015.00)	100
2.	Constn of Integrated Passenger Ter. Bldg. NSCBI Airport, West Bengal	20 Million Passanger p.a.	8/2008	05/2011 (03/2013)	1942.51 (2325.00)	100
3.	Gagan Project, Multi State	Satellite Navigations	09/2008	06/2013 (06/2013)	626.00 (626.00)	90.85

### 10.3 Coal

There were 51 projects in the coal sector under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 37510.52 crores and the expenditure incurred on these projects till March 2013 was ₹ 11781.14 crore. Out of these 51 projects, 9 were

in Mega category and 4 in Major category. These projects belonged to Bharat Cooking Coal Limited, Central Coal Fields Limited, Eastern Coal Fields Limited, South-Eastern Coal Fields Limited, Mahanadi Coal Fields Limited, Northern Coal Fields Limited, Singareni Colliers Company Limited and Neyveli Lignite Corporation Ltd. The details of 13 projects costing above ₹ 500 crore is given below :

#### 10.3.1 Bharat Cooking Coal Limited (BCCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost (₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Moonidih XV Seam UG, Dhanbad, Jharkhand	1.5 MTY	08/2011	04/2015 (04/2015)	1230.27 (1230.27)	0.00

#### 10.3.2 Central Coalfields Limited (CCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost (₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Magadh OC (CCL), Jharkhand	20 MTY	08/2008	07/2012 (03/2016)	469.78 (706.40)	0.00
2.	Rajrappa RCE OCP Jharkhand	[3 MTY]	12/2009	03/2016 (03/2016)	510.85 (510.85)	0.00

#### 10.3.3 Neyveli Lignite Corporation (NLC)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost (₹ in crore) – Original / Estimated	Physical Progress (%)
1.	TPS-II Expansion Cuddalore Tamil Nadu	MW 2 x 250	10/2004	06/2009 (01/2014)	2030.78 (3027.59)	92.15
2.	Tuticorin Thermal Power Project, Tamil Nadu	MW 2x500	05/2008	03/2012 (03/2014)	4904.54 (4909.54)	70.60
3.	Neyveli New Thermal Power Project, Tamil Nadu	MW 2 x 500	06/2011	12/2015 (07/2017)	5907.11 (5907.11)	0.00

### 10.3.4 Northern Coalfields Limited (NCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Krishnashila (NCL), Uttar Pradesh	4 MTY	06/2011	03/2013 (03/2013)	789.88 (741.62)	0.00
2.	Amlohri EPR (NCL), Madhya Pradesh	10 MTY	12/2009	3/2016 (03/2016)	1352.04 (1143.54)	0.00
3.	Block-B OCP NCL Madhya Pradesh	3.5MTY	06/2011	03/2015 (03/2015)	746.04 (535.10)	0.00
4.	Khadia Expansion Open Cast Project, Uttar Pradesh	6 MTPA	06/2011	03/2018 (03/2018)	1131.28 (1131.28)	0.00

### 10.3.5 South-Eastern Coal Fields Limited (SFCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Gevra Expansion OCP Corba Chhattisgarh	[25 MTY]	06/2010	03/2014 (03/2016)	2675.67 (2675.67)	66.67
2.	Dipka Expansion OCP Korba Chhattisgarh	20 MTY	12/2009	03/2014 (03/2016)	1943.66 (1943.66)	58.33
3.	Kusmunda Expn. OCP Chhattisgarh	10 MTY	06/2008	03/2013 (03/2013)	1188.31 (1188.31)	50.00

## 10.4 Fertilisers

There were 3 projects in the fertilisers sector under implementation as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 4065.66 crore and the expenditure incurred on these projects till March 2013 was ₹ 1543.38 crore. All the 3 projects were in Mega category and belonged to National Fertilisers Limited. The details of the 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 / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Bathinda-Ammonia Plant Feedstock Changeover Project. Bathinda Punjab	5.115 MT	01/2010	01/2013 (01/2013)	1294.19 (1294.19)	100.00
2.	Panipat-Ammonia Plant Feedstock Changeover Project Panipat Haryana	5.115 MT	01/2010	01/2013 (01/2013)	1292.84 (1292.84)	100.00
3.	Nangal-Ammonia Plant Feedstock Project Rupnagar Punjab	4.785LMT	01/2010	01/2013 (03/2013)	1478.63 (1478.63)	98.88

### 10.5 Steel

There were 17 projects under implementation in the steel sector, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 71,443.41 crore and the expenditure incurred on these projects till March 2013 was

₹ 39,209.03 crores. Out of these 16 projects, 6 were in Mega category and 3 in Major category. These projects belonged to NMDC, RINL and SAIL. The details of the 9 projects costing above ₹ 500 crore is given as under :

#### 10.5.1 National Mineral Development Corporation(NMDC)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1	Bailadila Iron Ore Deposit-11(B) Chhatisgarh	7.0 MTPA	01/2007	12/2011 (06/2013)	295.89 (607.17)	0.00
2.	7.0 MTPA Kumarswamy Iron Ore Mine, Bellary, Karnataka	7.0 MTPA	02/2011	05/2013 (11/2013)	898.55 (898.55)	0.00
3.	1.2 MTPA Pellet Plant Donimalai, Bellary, Karnataka	1.2 MTPA	04/2011	04/2013 (12/2013)	572.00 (572.00)	70.00

### 10.5.2 Rastriya Ispat Nigam Limited (RINL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost (₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Expansion of Liquid Steel Capacity from 3 MT to 6.3 MT V'patnam Andhra Pradesh	3.3 MT	10/2005	10/2009 (06/2013)	8692.00 (12291.00)	0.00

### 10.5.3 Steel Authority of India (SAIL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost (₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Expansion of Bokaro Steel Plant, Jharkhand	4.61 MTPA	01/2008	12/2011 (12/2013)	6325.00 (6325.00)	0.00
2.	Expansion of IISCO Steel Plant, West Bengal	2.50 MTPA	02/2008	12/2011 (12/2013)	14443.00 (16408.00)	0.00
3.	Expansion of Rourkela Steel Plant, Orissa	4.2 MTPA	09/2008	03/2013 (12/2013)	11812.00 (11812.00)	0.00
4.	Expansion of Bhilai Steel Plant, Chhatisgarh	7.00 MTPA	09/2008	03/2013 (03/2014)	17265.00 (17265.00)	0.00
5.	Expansion of Durgapur Steel Plant, West Bengal	2.20 MTPA	06/2009	12/2012 (12/2013)	2875.00 (2875.00)	0.00

### 10.6 Petrochemicals

There was only **one** Mega project in the Petrochemicals sector, as on 31.3.2013. The total estimated

completion cost of this project stood at ₹ 8,920.00 crore and the expenditure incurred on this project till March 2013 was ₹ 4,510.51 crore. This belonged to Brahmaputra Cracker & Polymer Limited. Detail of the project is given as under:-

### 10.6.1 Brahmaputra Cracker & Polymer Limited

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Assam Gas Cracker Project, Assam	220 KTPA	04/2006	04/2012 (12/2013)	5460.61 (8920.00)	89.80

### 10.7 Petroleum

There were 75 projects in the petroleum sector under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 1,88,160.27 crore and the expenditure incurred on these projects till March 2013

was ₹ 71,822.33 crore. Out of these 75 projects, 39 were in Mega category and 16 in Major category. These projects belonged to BPCL, CPCL, GAIL, HPCL, IOCL, MRPL, NFL and ONGC. The details of the 55 projects costing above ₹ 500 crore is given as under :

#### 10.7.1 Bharat Petroleum Corporation Limited (BPCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Hydrocracker Revamp & Setting up a new CCR at Mumbai Refinery, Maharashtra	1.20 MMTPA	04/2008	04/2013 (04/2013)	825.00 (1827.00)	89.32
2.	Integrated Refinery Expansion Project, Kerala		01/1999	12/2015 (05/2016)	14225.00 (14225.00)	4.53
3.	Replacement of CDU/ VDU at Mumbai Refinery, Maharashtra		01/1999	12/2014 (12/2014)	1419.00 (1419.00)	0.00

#### 10.7.2 Chennai Petroleum Corporation Limited

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	EURO-IV DHDT Tamil Nadu	1.8 MMTPA	09/2008	05/2010 (01/2013)	2615.69 (2615.69)	100.00

### 10.7.3 Gas Authority of India Limited (GAIL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Compressor Stations (Kailaras & Chainsa) Multi State	54 MMSCMD	11/2007	04/2011 (02/2013)	1167.00 (798.00)	100.00
2.	Kochi Kootanad Bangalore Mangalore Pipeline PH II, Multi State	1112 KM	06/2009	12/2012 (04/2013)	2915.00 (2915.00)	72.80
3.	Dhabol-Bangalore Pipeline Project Phase-I Multi State	549 KM	06/2009	03/2012 (02/2013)	4543.43 (2500.00)	100.00
4.	Jagdishpur-Haldia Pipeline Project Phase-I Multi State	944 KM	07/2009	01/2013 (N.A.)	7596.18 (6652.22)	0.00
5.	BNPL SPURLINE (Uttanchal & Punjab), Multi State	163 KM	12/2009	07/2012 (N.A.)	540.92 (460.70)	0.00
6.	Petrochemical Complex-II at Vijaypur and Pata, Multi State	410 KTA	08/2010	02/2014 (02/2014)	8140.00 (8140.00)	82.70

### 10.7.4 Hindustan Petroleum Corporation Limited (HPCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Resitement of Marketing Installation at Vishakhapatnam, Andhra Pradesh.	White oil-168 TKL Black oil-94 TKL LPG-88TMTPA	1/2009	N.A. (N.A.)	756.00 (898.00)	98.99
2.	Diesel Hydrotreater Project at Vikash Refinery Andhra Pradesh	Quality upgradation	03/2009	09/2011 (06/2013)	3597.00 (2730.00)	96.92
3.	Diesel Hydrotreater Project at Mumbai Refinery, Maharashtra	Quality upgradation	03/2009	09/2011 (06/2013)	3284.00 (2174.00)	96.74
4.	Rewari Kanpur Pipeline Project, Multistate		02/2012	11/2015 (11/2015)	1210.64 (1210.64)	12.60
5.	Mangalore Hassan Mysore Solur LPG Pipeline (Mhmslpl), Karnataka		11/2012	11/2015 (11/2015)	666.00 (666.00)	0.00

### 10.7.5 Indian Oil Corporation Limited (IOCL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Paradip Refinery Project, Orissa	15 MMTPA	02/2009	11/2012 (03/2014)	29777.00 (30426.00)	92.00
2.	Paradip-Raipur-Ranchi Pipeline, Multi State	1065 KM	08/2009	09/2012 (N.A.)	1793.00 (1793.00)	68.52
3.	Integrated Crude Oil Handling Facilities at Paradip, Orissa	2 SPM70 KM Subsea pipeline	12/2009	06/2012 (03/2013)	1492.33 (1492.33)	100.00
4.	De-Bottlenecking of SMPL , Maharashtra	21-25 LMMTPA enhancement	12/2009	N.A. (N.A.)	1584.00 (1584.00)	43.46
5.	Fluidized Catalytic Cracking Unit (FCCU) Revamp at Mathura Refinery, Uttar Pradesh	1.3 to 1.5 MMTPA enhancement	07/2010	01/2013 (08/2013)	1000.00 (1000.00)	88.23
6.	Paradip Haldia Durgapur LPG Pipeline, Multistate		02/2011	07/2015 (N.A)	913.00 (913.00)	24.41
7.	Augmentation Of Paradip Haldia Barauni Pipeline, Multistate		08/2011	07.2015 (08/2015)	586.00 (586.00)	25.77

### 10.7.6 Mangalore Refinery and Petrochemicals Limited (MRPL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	MRPL Phase-III Expansion Karnataka	3 MMTPA	08/2008	01/2012 (05/2013)	12412.00 (12160.26)	98.40
2.	Polypropylene Unit Karnataka	440 MTPA	05/2009	07/2012 (10/2013)	1803.78 (1803.78)	87
3.	Single Point Mooring Facility(SMP) Project, Karnataka		07/2010	04/2012 (N.A.)	1043.57 (1043.57)	98.50

### 10.7.7 Numaligarh Refinery Limited (NRL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Wax Project Assam	50 TMTA	06/2010	12/2013 (12/2013)	576.60 (576.60)	68.50

### 10.7.8 Oil & Natural Gas Corporation Limited (ONGC)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	IOR Lakwa-Lakhmani Assam	3.06 MMT Oil	09/2001	03/2007 (03/2014)	345.10 (663.69)	96.57
2.	IOR Geleki (ONGCL) Geleki, Assam	4.76 MMT Oil	09/2001	03/2007 (03/2017)	390.09 (1674.11)	97.56
3.	DEV of G1 and GS 15 (ONGCL) – Multi State	0.98 MMT Oil, 5.92 BCM Gas	04/2003	04/2006 (06/2013)	429.82 (2735.65)	91.75
4.	Development of C-Series Fields, Maharashtra	0.98 MMT Oil, 5.92 BCM Gas	08/2006	12/2008 (04/2013)	3195.16 (3690.37)	94.70
5.	Development of B-22 Cluster Fields, Mumbai, Maharashtra	2.46 MMT Oil, 6.56 BCM Gas	01/2007	09/2010 (04/2013)	2323.40 (2920.82)	88.05
6.	Construction of New Process Complex MHN Maharashtra	Processing of oil & gas produced from MH North Field	01/2007	05/2010 (03/2013)	2853.29 (6326.40)	100.00
7.	Offshore Grid Interconnectivity Project in Mumbai High Mumbai, Maharashtra	Installation of ESP for augmenting liquid withdrawal	01/2007	03/2010 (05/2013)	740.02 (740.02)	85.31
8.	Development of B-193 Cluster Fields Maharashtra	5.57 MMT Oil, 5.12 BCM Gas	06/2007	08/2010 (12/2013)	3248.78 (5633.44)	79.53

9.	Construction of 12 Off-Shore Supply Vessels (OSV), Multi State	Replacement of old supply vessels with new vessels-12 Nos.	06/2007	09/2011 (12/2013)	736.65 (736.65)	77.54
10.	Development of B-46 Cluster Field Maharashtra	1.68 MMm3 condensate, 5.27 BCM Gas	06/2007	07/2010 (05/2013)	1436.21 (1436.21)	80.87
11.	Mumbai High South Redevelopment Ph-2 Maharashtra	18.31 MMT Oil, 2.70 BCM Gas	10/2007	05/2010 (05/2013)	5713.03 (8813.41)	95.81
12.	Heera And South Heera Redevelopment, Maharashtra		03/2012	05/2015 (05/2015)	5608.40 (5608.40)	9.91
13.	Development Of Western Periphery Of MH South Field, Multistate		04/2012	12/2014 (12/2014)	600.17 (600.17)	0.00
14.	North Tapti Gas Field Development Multi State	4.12 BCM Gas	07/2008	03/2011 (05/2013)	589.70 (755.76)	90.68
15.	Additional Gas Processing Units at URAN Maharashtra	Setting up of additional processing facility	10/2008	12/2011 (07/2013)	1797.35 (977.00)	99.04
16.	Mumbai High North Development Phase-II Maharashtra	17.35 MMT Oil, 2.98 BCM Gas	01/2009	09/2012 (09/2013)	7133.39 (6855.93)	95.06
17.	Assam Renewal Project for Group A Assam	Revamping of old facilities of Lakwa & Lakhmani fields and Moran CTF	03/2009	03/2013 (03/2014)	2465.15 (2378.86)	74.73
18.	Construction of one Multipurpose Support Vessel Multi State	Construction of one Multipurpose Support Vessel to assist operations	01/2010	03/2013 (11/2013)	723.64 (723.64)	0.00

19.	Additional Development of D-1 Field Multi State	8.296 MMT Oil	01/2010	06/2012 (06/2012)	2163.64 (2163.64)	80.55
20.	Development of Cluster-7 Fields Multi State	9.73 MMT Oil & cond, 4.52 BCM Gas	03/2010	03/2013 (04/2014)	3241.03 (5916.65)	68.74
21.	Development of WO-16 Cluster Fields Multi State	2.83 MMT Oil & cond, 8.58 BCM Gas	06/2010	01/2014 (01/2014)	2523.00 (2523.00)	55.05
22.	102 MW Wind Power Project, Rajasthan	Harness 102 MW of wind power	07/2010	06/2012 (03/2014)	1106.00 (678.02)	0.00
23.	Ahmedabad Redevelopment Gujrat	5.85 MMT Oil, 0.86 BCM Gas	11/2010	12/2014 (12/2014)	1916.10 (1916.10)	38.21
24.	Mehesana Redevelopment Gujarat	19.79 MMT Oil	11/2010	04/2015 (04/2015)	3823.00 (3823.00)	30.62
25.	Ankleswar Redevelopment Gujarat	2.48 MMT Oil, 6.03 BCM Gas	11/2010	12/2014 (12/2014)	2189.63 (2189.63)	47.76
26.	Conversion of RIG Sagar Samrat to Mobile offshore Production Unit (MOPS), Maharashtra	To deploy as a mobile processing unit at WO-16 Project	03/2011	05/2013 (11/2013)	861.79 (756.65)	44.40
27.	Integrated Development Of B-127 Fields, Maharashtra		12/2011	03/2015 (03/2015)	2059.63 (2059.63)	0.00
28.	Development Of C-26 Cluster Fields, Maharashtra		03/2012	05/2014 (05/2014)	2592.17 (2592.17)	0.00
29.	Pipeline Replacement Project-3, Multistate		04/2012	05/2014 (05/2014)	2547.26 (1417.00)	67.56

## 10.8 Power

Here were 105 projects in the power sector under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 2,72,084.21 crore and the expenditure incurred on these projects till March 2013

was ₹ 89755.35 crore. Out of these 105 projects, 64 were in Mega category and 19 in Major category. These projects belonged to NHPC, NTPC, NEEPCO, PGCIL, SJVNL, and THDC. The details of the 83 projects costing above ₹ 500 crore is given as under :

### 10.8.1 National Hydro-Electric Power Corporation

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ In crore) – Original / Estimated	Physical Progress (%)
1.	Parbati HEP Himachal Pradesh	4 x 200 MW	09/2002	09/2009 (03/2018)	3919.59 (5366.00)	0.00
2.	Subansiri Lower HEP Arunachal Pradesh	8 x 250 MW	09/2003	09/2010 (12/2017)	6285.33 (10667.00)	-
3.	Tessta Low Dam Stage III Hydroelectrical Power Project West Bengal	4 x 33 MW	10/2003	03/2007 (04/2013)	768.92 (1628.00)	-
4.	URI HEP Stage-II J&K	240 MW	08/2005	11/2009 (05/2013)	1729.29 (2081.00)	-
5.	Tessta Low Dam HEP Stage-IV West Bengal	4 x 40 MW	09/2005	09/2009 (03/2014)	1061.38 (1501.75)	-
6.	Parbati HEP Stage-III Himachal Pradesh	520 MW	10/2005	10/2010 (03/2014)	2304.56 (2716.00)	-
7.	Nimoo Bazgo Hydroelectric Project J&K	3 x 15 MW	08/2006	08/2010 (06/2013)	611.01 (936.00)	-
8.	Chutak Hydroelectric Project J&K	4 x 11 MW	08/2006	02/2011 (01/2013)	621.26 (913.00)	-
9.	Kishan Ganga HEP J&K	1 x 110 MW	07/2007	01/2016 (11/2016)	2238.67 (3642.00)	-

### 10.8.2 National Thermal Power Corporation (NTPC)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ In crore) – Original / Estimated	Physical Progress (%)
1.	Koldam HEP Bilaspur Himachal Pradesh	4 x 200 MW	10/2002	04/2009 (09/2014)	4527.15 (6358.91)	-
2.	BARH STPP(3X660MW) NTPC, Bihar	3 x 660 MW	12/2003	12/2009 (02/2017)	8692.97 (8693.00)	0.00

3.	Tapovan-Vishnugad HEP Uttaranchal	4 x 130 MW	11/2006	03/2013 (03/2016)	2978.48 (2978.48)	-
4.	Bongaigaon Thermal Power Project Assam	3x250 MW	01/2008	07/2011 (10/2015)	4375.35 (4375.35)	-
5.	Barh STPP Stage-II Bihar	2x660 MW	02/2008	08/2013 (09/2014)	7341.04 (7341.04)	-
6.	Mouda STPP, Maharashtra	2 x 500 MW	11/2008	08/2012 (03/2013)	5459.28 (6010.89)	-
7.	Vindhyachal STTP Stage- IV Madhya Pradesh	2 x 500 MW	01/2009	10/2012 (03/2013)	5915.00 (5915.00)	-
8.	Rihand STTP Stage-III Uttar Pradesh	5 x 500 MW	01/2009	10/2012 (11/2013)	6230.81 (6230.81)	-
9.	Vindhyachal STPP Stage-V, Madhya Pradesh	-	12/2011	08/2015 (08/2015)	3180.40 (3180.40)	-
10.	Kudgi STPP Stage 1, Karnataka	-	12/2011	12/2016 (12/2016)	15166.19 (15166.19)	-
11.	Solapur STPP, Maharashtra	-	03/2012	11/2016 (11/2016)	9395.18 (9395.18)	-
12.	Mouda STPP Stage 2, Maharashtra	-	03/2012	09/2016 (09/2016)	7921.47 (7921.47)	-
13.	Lata-Tapovan Hydro Electric Power Project 3x57 Mw	3x57 MW	07/2012	08/2017 (08/2017)	1527.00 (1527.00)	0.00
14.	Lara Super Thermal Power Project Stage-I (2 X 800 Mw), Raigarh, Chhatisgarh	2x 800 MW	11/2012	05/2017 (05/2017)	11846.00 (11846.00)	-
15.	Larastpp Stage-I (2x800 Mw), Chhatisgarh	2x800 MW	11/2012	05/2017 (05/2017)	11846.00 (11846.00)	-

### 10.8.3 North East Electric Power Corporation

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ In crore) – Original / Estimated	Physical Progress (%)
1.	Kameng Hydroelectric Project West Kameng Arunachal Pradesh	4 x 600 MW	12/2004	05/2013 (03/2017)	2496.90 (2496.90)	63.00
2.	Pare Hydro Electric Project Papum Pare Arunachal Pradesh	2 x 110 MW	12/2008	08/2012 (09/2014)	573.99 (573.99)	46.00

3.	Tripura Gas Based Power Project Tripura	100 MW	07/2009	NA (07/2013)	421.01 (623.44)	45.00
4.	Tuirial Hydro Electric Project,Mizoram	60 MW	01/2011	07/2014 (02/2015)	913.63 (913.63)	30.80

#### 10.8.4 Power Grid Corporation of India Limited

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ In crore) – Original / Estimated	Physical Progress (%)
1.	Kaiga 3 and 4 Transmission system Karnataka	759 CKM	03/2005	12/2007 (N.A)	596.45 (1007.16)	85.00
2.	Kudankulam-APP Trans System(PGCIL) Tamil Nadu	1836 CKM	05/2005	09/2008 (03/2013)	1779.29 (2159.07)	98.00
3.	Transmission System Associated with Parbati-III HEP Himachal Pradesh	508 CKM	07/2006	01/2010 (04/2013)	557.24 (758.75)	95.00
4.	Eastern Region Strengthening Scheme-I,Multi State	1552 CKM	10/2006	10/2009 (09/2013)	975.96 (975.96)	96.00
5.	Supplementary Transmission Associated with DVC and Maithon RBC Multi State	2152 ckm	08/2008	08/2012 (03/2014)	2360.95 (2360.95)	96.00
6.	765 KV Pooling Station & Network with DVC and Maithon RBC Multi State	2050 CKM	08/2008	08/2012 (03/2014)	7075.33 (7075.33)	90.00
7.	Tr. System Associated with Mundra Ultra Mega Project Multi State	3694 CKM	10/2008	10/2012 (03/2014)	4824.12 (4824.12)	83.00
8.	Transmission System Associated with Sasan Ultra Mega Power Project Multi State	2150 CKM	12/2008	12/2012 (12/2013)	7031.88 (7031.88)	80.00
9.	Northern Region System Strengthening Scheme-XV Multi State	246 CKM	02/2009	11/2011 (03/2014)	520.48 (520.48)	88.00
10.	North-East North Western Interconnector I Project Multi State	5073 CKM	02/2009	08/2013 (03/2015)	11130.19 (11130.19)	49.00
11.	765 KV System for Central Part of Northern Grid Part-I Multi State	904 CKM	02/2009	02/2012 (05/2013)	1347.32 (1347.32)	89.00

12.	Northern Region System Strengthening Scheme-XVIII, Multi State	-	02/2009	11/2011 (12/2013)	509.66 (509.66)	59.00
13.	765 KV System for Central Part of Northern Region Grid Part-II Multi State	NA	07/2009	06/2012 (05/2013)	1736.36 (1736.36)	92.00
14.	765 KV System for Central Part of Northern Grid Part-III Multi State	456 CKM	11/2009	05/2012 (09/2013)	1075.12 (1075.12)	73.00
15.	System Strengthening in NR Sasan & Mundra Multi State	1378 CKM	12/2009	08/2012 (03/2014)	1216.83 (1216.83)	68.00
16.	Trans. System Associated with Pallatana GBPP & BPTS Multi State	1405 CKM	02/2010	12/2012 (12/2013)	2144.00 (2144.00)	57.00
17.	Transmission System of Vindhyachal-IV and Rihad-III Gen Project Multi State	1665 CKM	03/2010	11/2012 (03/2014)	4672.99 (4672.99)	45.00
18.	Northern Region Transmission Strengthening Scheme Multi State	468 CKM	03/2010	11/2012 (12/2013)	965.58 (965.58)	53.00
19.	Trans System for Development of Pooling Stn. In NR Part of West Bengal and Transfer of Power from Bhu West Bengal	454 CKM	04/2010	01/2015 (01/2015)	4404.57 (4404.57)	9.00
20.	Northern Region System Strengthening Scheme XVI, Multi State	404 CKM	07/2010	07/2013 (03/2014)	752.64 (752.64)	35.00
21.	Eastern Region Transmission System-III, Multi State	754 CKM	07/2010	11/2012 (03/2014)	1272.80 (1272.80)	44.00
22.	Northern Region System Strengthening Scheme XXI, Multi State	837 CKM	08/2010	04/2013 (03/2014)	1677.57 (1677.57)	40.00
23.	Transmission System for Phase-I Gen Project In Orissa-Part A Orissa	693 CKM	09/2010	03/2013 (12/2013)	2074.86 (2074.86)	44.00
24.	Transmission System Associated with Krishna Patnam Part-A Andhra Pradesh	582 CKM	12/2010	08/2013 (03/2013)	779.21 (779.21)	100.00
25.	Establishment of Pooling Stations at Rajgarh and Raipur for IPP Generation Projects in Chattisgarh Chhatisgarh	527 CKM	12/2010	08/2013 (08/2013)	1719.52 (1719.52)	40.00

26.	Transmission System for Phase-I Gen. Project in Orissa-B Orissa	1118 CKM	12/2010	12/2013 (03/2014)	2743.19 (2743.19)	45.00
27.	Trans System For Phase-I Gen. Project In Orissa-C, Multi State	1248 CKM	03/2011	03/2014 (03/2014)	2569.25 (2569.25)	45.00
28.	Tranmission system for Transfer of Power from Gen. Proj in Sikim to NR/WR Part-B, Multi State	799 CKM	03/2011	11/2013 (11/2013)	1585.12 (1585.12)	39.00
29.	Establishment of Pooling Stations at Champa and Raigarh for IPP Generation Project in Chhattisgarh, Chhattisgarh	547 CKM	05/2011	05/2014 (05/2014)	1961.87 (1961.87)	36.00
30.	Common System Associated with ISGS Projects in Krishnapatnam of Andhra Pradesh, Andhra Pradesh	749 CKM	08/2011	08/2014 (08/2014)	1637.34 (1637.34)	26.00
31.	Integration of Pooling Station in Chattisgarh with Central Part of WR for IPP Generation Projects , Multi State	740 CKM	08/2011	12/2013 (12/2013)	1391.97 (1391.97)	54.00
32.	Transmission system for IPP Generation Projects in MP and Chattisgarh, Multi State	557 CKM	09/2011	12/2013 (12/2013)	1366.34 (1366.34)	32.00
33.	Common System Associated with Coastal Ener. Gen. Private Limited and Indbarath Power Madras Limited, Tuticorin, Tamil Nadu	1188 CKM	09/2011	09/2014 (09/2014)	1940.13 (1940.13)	28.00
34.	Transmission System for Phase-I Generation Projects in Jharkhand and West Bengal, Part-A, Jharkhand	396 CKM	10/2011	11/2013 (11/2013)	558.26 (558.26)	18.00
35.	Northern Region System Strengthening Scheme-XXIV, Multi State	-	11/2011	11/2014 (11/2014)	723.63 (723.63)	10.00
36.	Transmission System Strengthening in Western Part of WR for IPPS Generation Projects in Chattisgarh, Chattisgarh	1337 CKM	11/2011	07/2014 (07/2014)	2127.51 (2127.51)	28.00
37.	Immediate Evacuation System With Barh-II TPS, Bihar	-	12/2011	08/2014 (08/2014)	901.77 (901.77)	14.00

38.	System Strengthening In North/West Part of WR for IPP Projects In Chattisgarh, Chhatisgarh	-	12/2011	08/2014 (08/2014)	1746.65 (1746.65)	9.00
39.	Transmission System for Connectivity of ESSAR Power Gujrat Ltd., Gujrat	500 CKM	12/2011	02/2014 (02/2014)	552.44 (552.44)	24.00
40.	Tr. System for Phase-I Generation Projects in Jharkhnd and West Bengal-Part-A2., Multi State	695 CKM	12/2011	08/2014 (08/2014)	2422.66 (2422.66)	12.00
41.	System Strengthening in Raipur-Wardha Corridor for IPP Projects in Chattisgarh, Chattisgarh	760 CKM	01/2012	01/2015 (01/2015)	1422.85 (1422.85)	15.00
42.	System Strengthening in Wardha-Aurangabad Corridor for IPP Projects in Chattisgarh, Chattisgarh	712 CKM	02/2012	02/2015 (02/2015)	1310.85 (1310.85)	14.00
43.	Transmission system Associated with Krishnanpatnam UMPP-Part-B, Andhra Pradesh	609 CKM	02/2012	10/2014 (10/2014)	1927.16 (1927.16)	10.00
44.	Tr. Sys. for Phase-I Proj. In Jharkhand And West Bengal Part-B, Multi State	-	02/2012	10/2014 (10/2014)	3201.44 (3201.44)	12.00
45.	WR-NR HVDC Interconnector for IPP Projects in Chhatisgarh, Chhatisgarh	2001 CKM	03/2012	06/2015 (06/2015)	9569.76 (9569.76)	1.00
46.	System Strengthening- XVIII in Southern Region Grid, Multi State	-	06/2012	11/2014 (11/2014)	1263.26 (1263.26)	-
47.	System Strengthening -XIX in Southern Regional Grid[, Multi State	-	09/2012	12/2014 (12/2014)	1935.35 (1935.35)	-
48.	Northern Region System Strengthening Scheme- XXVIII, Multi State	-	09/2012	04/2015 (05/2015)	524.40 (524.40)	-
49.	System Strengthening - XVII in Southern Regional Grid, Multi State	-	09/2012	06/2016 (06/2016)	1508.74 (1508.74)	-
50.	Northern Region System Strengthening Scheme- XXVI, Multi State	-	09/2012	03/2015 (03/2015)	803.34 (803.34)	-
51.	Common Tr. Sys. Associated With East Coast & NCC Power Projects in Srikakulam Area A.P. Part-C, Multi State	-	03/2013	06/2015 (06/2015)	514.20 (514.20)	-

52.	Common Sys. Associated With East Coast Energy Pvt Ltd And Ncc Power Projects Ltd, GEN Part- B, Multi State	-	03/2013	12/2015 (12/2015)	2514.88 (2514.88)	-
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#### 10.8.5 Satluj Jal Vidyut Nigam Limited (SJVN)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Rampur HEP Simla, Himachal Pradesh	412 MW	1/2007	1/2012 (02/2014)	2047.03 (2047.03)	-

#### 10.8.6 Tehri Hydro Development Corporation Limited (THDC)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Tehri Pumped Storage Plant, Uttar Pradesh	4X250 MW	07/2006	07/2010 (11/2016)	1657.00 (2978.86)	-
2.	Vishnugad Pipalkoti Hydroelectric Project Uttaranchal	4X111 MW	08/2008	07/2014 (05/2016)	2491.58 (3422.44)	-

### 10.9 Railways

There were 128 projects in the Railways under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 150234.02 crore and the expenditure incurred on these projects till March 2013

was ₹ 54746.09 crore. Out of these 128 projects, 42 were in Mega category and 86 in Major category. Most of these projects belonged to different divisions of Railways. Only 17 projects are under Rail Vikas Nigam Ltd. (RVNL). Out of these 17 projects of Rail Vikas Nigam Ltd. the details of the 10 projects whose costing above ₹ 500 crore is given as under :

#### 10.9.1 Rail Vikas Nigam Ltd. (RVNL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Dalli-Rajhara - Raoghat (Part of Dalli-Rajhara-Jagdalpur), NI, RVNL, Secr, Chhatisgarh	235 KM	04/1995	12/2012 (N.A.)	304.00 (968.60)	16.10

2.	Haridaspur-Paradeep(NI), Ecor,Odisha	82 KM	04/1996	N.A. (N.A.)	301.64 (1185.64)	18.31
3.	Sukinda Road - Angul (NI) (Ecor), Odisha	99 KM	04/1998	02/2015 (02/2015)	183.23 (818.29)	10.00
4.	Obulavaripalle-Krishnapatnam(RVNL), Andhra Pradesh	113 KM	07/2006	03/2008 (N.A.)	743.00 (1117.11)	25.00
5.	Panspura-Kharagpur 3D Line, West Bengal	45 KM	09/2007	02/2010 (12/2015)	252.50 (529.23)	-
6.	Bhopal Bina 3D Line Doubling, Madhya Pradesh	138 KM	09/2007	03/2010 (12/2015)	687.20 (687.20)	74.00
7.	New Work For Construction of Metro Railway from Noapara-Barasai via Bimanbender (MTP), West Bengal	18 KM	04/2010	03/2016 (06/2016)	2397.72 (2397.72)	1.00
8.	New Work for Construction Of Metro Railway From Joka To Binoy Badal Dinesh Bagh., West Bengal	16.72 KM	04/2010	03/2016 (03/2016)	2619.02 (2619.02)	74.00
9.	New Work for Construction of Metro Railway from NSCB Airport To New Garia via Rajarhat (MTP), West Bengal	32 KM	04/2010	03/2016 (03/2016)	3951.98 (3951.98)	5.00
10.	New Work for Construction of Metro Railway from Baranagar to Barrackpore and Dakshineshwar (MTP), West Bengal	14.5 KM	04/2010	03/2014 (03/2016)	2069.60 (2298.42)	32.00

## 10.10 Shipping & Ports

There were 20 projects in the Shipping & Ports sector under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 18174.92 crore and the expenditure incurred on these projects till March 2013

was ₹ 4982.04 crore. Out of these 20 projects, 6 were in Mega category and 14 in Major category. These projects belonged to RVNL, SCI and other non-CPSEs i.e. Mumbai Port Trust, Port Trust. The details of the 4 projects of Shipping Corporation of India whose costing above ₹ 500 crore is given as under :

### 10.10.1 Shipping Corporation of India (SCI)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Acquisition of 4 Nos. of 82000 DWT Kamsavmax Bulk Carriers from M/s Jiangsu Eastern Heavy Industries Maharashtra	4X82000 DWT	08/2010	12/2012 (10/2013)	612.72 (532.83)	0.00

2.	Acquisition of Two(2) Nos. of 317000 DWT Very Large Crude Carriers from M/s. Jiangsu Rongsheng Heavy Maharashtra	2X317000 DWT	10/2010	02/2014 (02/2014)	966.46 (994.82)	0.00
3.	Acquisition of Three (3) Nos. of 6500 TEU Cellular Container Vessels from M/s. STX Ship Building Co. Ltd. Maharashtra	3X6500 TEU	10/2010	12/2013 (10/2013)	1028.10 (1012.23)	0.00
4.	Acquisition of Six (6) Nos. of Anchor Handling Tug Cum Supply, Multi State	-	01/2012	03/2014 (03/2014)	511.87 (511.87)	0.00

### 10.11 Telecommunication

There were 15 projects in the Telecommunication sector under implementation, as on 31.3.2013. The total estimated completion cost of these projects stood at ₹ 6920.16

crore and the expenditure incurred on these projects till March 2013 was ₹ 1625.87 crore. Out of these 15 projects, 1 were in Mega category and 3 in Major category. These projects belonged to BSNL, MTNL. The details of the 4 projects costing above ₹ 500 crore are given as under:

#### 10.11.1 Bharat Sanchar Nigam Limited (BSNL)

Sl. No.	Project/Location	Capacity	Date of approval	Date of commissioning – Original / Estimated	Cost ( ₹ in crore) – Original / Estimated	Physical Progress (%)
1.	Execution of Telecom Network Requirement of Defence Forces Multi State	Telecom Network	05/2006	03/2009 (N.A.)	1077.00 (1077.00)	0.00
2.	Implementation of FTTH, The State of The Art Access Network, Procurement of GPON Equipment Multi State	GPON Equipment	12/2007	03/2010 (N.A.)	952.88 (952.88)	0.00
3.	GSM Equipment of 1625000 Lines (2G) 325000 Lines (3G) MP Phase V.1 Telecom Circle Madhya Pradesh	1625000 Lines (2G) 325000 Lines (3G)	11/2009	11/2010 (06/2013)	916.70 (916.70)	0.00
4.	Supply Installation Testing and Commissioning of Rural Wimax Network Phase II, Multi State	-	07/2010	05/2011 (06/2013)	1148.19 (964.37)	0.00

## CHAPTER 11

# 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

UMPP 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.

### 11.1 Status of CPSEs under construction

As on 31.03.2013, there were altogether 48 CPSEs 'under construction', as against 35 as on 31.03.2012. While

three CPSEs 'under construction' existing in 2011-12 became operational, 16 CPSEs have been added to this list during the financial year 2012-13. The details are mentioned in the Table 11.1 below:

**Table 11.1**

Sl. No.	Name of The Enterprise	Reason for Exclusion
1.	Indian Oil CREDA Bio –Fuels Limited	Became operational in 2012-13
2.	Irrigation and Water Resources Finance Corporation Limited	Became operational in 2012-13
3.	PFC Green Energy Limited	Became operational in 2012-13

While the total 'authorized capital' of these 48 CPSEs stood at ₹ 18450.11 crores, the paid up capital stood at ₹10690.03 crores as on 31.03.2013. 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)

Sl. No.	CPSEs	Status	Year of Incorporation	Authorised Capital	Paid up Capital
1	Air India Engineering Services Ltd.	Subsidiary	2004	10	0.05
2	Anushakti Vidhyut Nigam Limited (AVNL).	Independent Company	2011	5	0.1
3	Bharat Broadband Network Limited	Independent Company	2012	1000	60
4	Bharat PetroResources - JPDA Limited	Subsidiary	2006	25	25

5	Bharatiya Nabhikiya Vidyut Nigam Limited	Independent Company	2003	5000	4187.52
6	Bhartiya Rail Bijlee Company Limited	Subsidiary	2007	1606	688.46
7	Biotechnology Industry Research Assistance Council	Independent Company	2012	1	0.1
8	Brahmaputra Cracker and Polymer Limited	Subsidiary	2007	2000	1057.95
9	Chattisgarh Sarguja Power Limited	Subsidiary	2006	0.05	0.05
10	Coastal Karnataka Power Limited	Subsidiary	2006	0.05	0.05
11	Coastal Maharashtra Mega Power Limited	Subsidiary	2006	0.05	0.05
12	Coastal Tamil Nadu Power Limited	Subsidiary	2007	0.05	0.05
13	CONCOR Air Limited	Subsidiary	2012	50	36.65
14	Darbhang Motihari Transmission Company Limited (DMTCL)	Subsidiary	2012	0.05	0.05
15	Dedicated Freight Corridor Corporation of India Limited	Independent Company	2006	4000	1965.05
16	Deoghar Mega Power Limited (DMPL)	Subsidiary	2006	0.05	0.05
17	DGEN Transmission Co. Ltd.	Subsidiary	2011	0.05	0.05
18	Ghogharpalli Integrated Power Company Limited	Subsidiary	2008	0.05	0.05
19	High Speed Rail Corporation of India Limited (HSRC)	Subsidiary	2012	5	0.05
20	HLL Biotech Limited	Subsidiary	2012	180	178
21	Indian Railway Stations Development Corporation Limited (IRSDC)	Subsidiary	2012	100	20
22	Jagdishpur Paper Mills Ltd	Subsidiary	2008	5	0.05
23	Jharkhand National Mineral Development Corporation (JNMDC).	Subsidiary	2012	0.01	0.01
24	Loktak Downstream Hydroelectric Corporation Ltd	Subsidiary	2009	230	117.69
25	Mahanadi Basin Power Limited	Subsidiary	2011	0.05	0.05
26	MJSJ Coal India Limited	Subsidiary	2008	200	95.1
27	MNH Shakti Limited	Subsidiary	2008	100	85.1
28	Neyveli Uttar Pradesh Power Limited (NUPPL).	Subsidiary	2012	500	0.1
29	NLC Tamil Nadu Power Limited/Tuticorin	Subsidiary	2006	1800	1200
30	NMDC Power Limited	Subsidiary	2011	0.05	0.05
31	NMDC-CMDC Limited	Subsidiary	2008	4	3.04
32	NTPC Hydro Ltd.	Subsidiary	2002	500	121.36
33	Orissa Integrate9d Power Limited	Subsidiary	2006	0.05	0.05

34	Patran Transmission Company Limited (PTCL) .	Subsidiary	2012	0.05	0.05
35	Power Equity Capital Advisors Private Limited.	Subsidiary	2008	0.1	0.05
36	Powergrid N M Transmission Limited	Subsidiary	2011	0.05	0.05
37	Powergrid Vemagiri Transmission Limited (PVTCL)	Subsidiary	2011	0.05	0.05
38	Punjab Ashok Hotel Corporation Ltd.	Subsidiary	1998	3	2.5
39	Purulia Kharagpur Transmission Company Limited (PKTCL)	Subsidiary	2012	0.05	0.05
40	RAPP Transmission Company Limited (RTCL).	Subsidiary	2012	0.05	0.05
41	BITES Infrastructure Services Ltd.	Subsidiary	2010	5	0.05
42	SAIL Jagadishpur Power Plant Ltd.	Subsidiary	2011	0.05	0.05
43	SAIL Sindri Projects Limited	Subsidiary	2011	0.05	0.05
44	Sakhigopal Integrated Power Company Limited	Subsidiary	2008	0.05	0.05
45	Sethusamudram Corporation Limited	Independent Company	2004	1000	745
46	SIDCUL CONCOR Infra Limited	Subsidiary	2013	100	100
47	Tatiya Andhra Mega Power Limited	Subsidiary	2009	0.05	0.05
48	TCIL BINA Toll Road Limited	Subsidiary	2012	20	0.05

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

#### 11.1.1 Air India Engineering Services Limited (AIESL)

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 31.03.2013 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. (iv) to undertake, render and provide, whether by itself or in association with other carriers or entities, all services and facilities as are necessary or desirable for the operation of air transport services in any part of the world including but not limited to engineering services, maintenances, servicing and repairing of aircraft, flying machines, aerial conveyances and any engines, auxiliary power units, components, parts, all kinds of vehicles, machinery and equipment and to undertake, render and provide training of personnel, technical or otherwise. The company is yet to commence its operations.

### **11.1.2 Anushakti Vidhyut Nigam Limited (AVNL).**

Anushakti Vidhyut Nigam Ltd. (AVNL) is a Public Limited Company having an authorized share capital of ₹ 5 crore incorporated on 27.1.2011 having its registered office in Mumbai, Maharashtra. The business activity of the company is development of nuclear power, protection of environment, manufacturing of nuclear components and trading of electricity. The authorised capital and paid up capital of the company, as on 31.3.2013, are ₹ 5 Crore and ₹ 0.1 crore respectively. Company is yet to commence its business activities.

### **11.1.3 Bharat Broadband Network Limited (BBNL) :**

Bharat Broadband Network Limited (BBNL) has been set up as a Special Purpose Vehicle (SPV). With its registered office at New Delhi, BBNL has incorporated on 25.02.2012 as a Public Sector Company with limited liability by shares with an objective to create, operate, maintain and manage National Optical Fibre Network (NOFN) for effective provision of at least 100 Mbps bandwidth on sharing basis in all the estimated 250000 Gram Panchayats of India. The project will be funded by Universal Service Obligation Fund (USOF) and its capital expenditure (CAPEX) will be administered by the Department of Telecommunication. The authorized share capital and equity share capital of the company as on 31.12.2013 is ₹ 1000 Crores and 60 crore respectively.

### **11.1.4 Bharat PetroResources JPDA Ltd.**

Bharat PetroResources JPDA Ltd was incorporated in 2006, 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. In the Joint Venture

business of exploration of Oil and Gas in JPDA between East Timor and Australia, the Company is having Participating Interest (PI) of 20% in the block JPDA 06-103. The other consortium members are Videocon Industries Ltd & GSPC holding 20% PI each, Pan Pacific & Japan Energy holding 15% PI each and Oilex holding 10% PI in the said block.

The Authorized share capital and paid up share capital of the Company stood at ₹ 25 crore each as on 31.03.2013. Non-current Assets and non-current liabilities of the company as on 31.03.2013 are ₹ 84.76 Crores and ₹ 68.30 Crores respectively.

### **11.1.5 Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI).**

Bharitiya Nabhikiya Vidyut Nigam Ltd. (BHAVINI) is wholly owned enterprise of the Government of India under the administrative control of Department of Atomic Energy. BHAVINI was incorporated in October, 2003. 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 (FBR) for generating electrical power from Nuclear Energy in pursuance of the schemes and programmes of the Government of India under the provision of the Atomic Energy Act, 1962. The project has reached advanced stage of construction and expected to go on stream by 2015.

The authorized capital of the company, as on 31.3.2013, is ₹ 5000 crore and during the year 2012-13 ₹234.67 Crores was drawn as equity, and total equity capital as on 31.03.2013 is ₹ 4187.52 Crores.

### **11.1.6 Bhartiya Rail Bijlee Company Limited (BRBCL)**

Bhartiya Rail Bijlee Company Limited (BRBCL) is formed as a Joint Venture company in between Indian Railways and NTPC Ltd with an objective to specifically meet the power requirement for electric traction and non-traction with an broad aspect to establish and operate power project in India. In BRBCL, equity participation of NTPC and Indian

Railway is 74:26. The company was incorporated on 22<sup>nd</sup> November, 2007 with authorized capital were ₹ 1606 Crores. Total equity capital as on 31.03.2013 is ₹ 688.46 Crores. BRBCL has taken up various activities related to setting up of a 1000 MW Coal Based Thermal Power Project (4x250 MW) at Nabinagar Block of Aurangabad District, Bihar. As per the agreement, 90% of power generation will be allocated to the Indian Railways and the balance 10% will be allocated to Bihar State Electricity Board. Presently construction of power generation unit at Nabinagar block is yet to be started.

### **11.1.7 Biotechnology Industry Research Assistance Council (BIRAC)**

Biotechnology Industry Research Assistance Council (BIRAC) a 'Not-for-Profit Company' of Government of India has been registered under section 25 of the Companies Act, 1956 on March 20, 2012, with its registered office situated at National Capital Territory of Delhi. BIRAC is a Private Limited Company set up as Department of Biotechnology's interface agency, which serves as a single window for the emerging biotech industries. BIRAC is guided by an Independent Board of Directors comprising senior professionals, academicians, policy makers and industrialists. BIRAC aims to become dynamic organisation, applying unique methodologies for nurturing the high risk projects which hold potential for commercialization. BIRAC would like to position itself as organisation nurturing and promoting innovation led research and will play an important role as facilitator and merely service provider.

During end of the financial year 2012-13, authorized share capital of the company was at ₹ 1 Crore and paid up share capital is ₹ 0.1 Crore.

### **11.1.8 Brahmaputra Cracker And Polymer Limited (BCPL)**

Brahmaputra Cracker and Polymer Limited (BCPL), was incorporated on 08.01.07 with its registered office at Guwahati and project office at Dibrugarh in Assam. It is 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 of the company as on 31.03.2013 is ₹ 2000 crore and paid-up capital has been increased from ₹ 861.55 crore to 1057.95 crore during the financial year 2012-13. 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 ONGCL has been signed on 15.07.2007. The project witnessed cost and time overrun due to various unavoidable reasons and Cabinet Committee on Economic Affairs (CCEA) has approved a revised project cost of ₹ 8920 Crores on November 2011 as against the original cost of ₹ 5460.61 Crores. Overall physical progress till financial year 2012-13 was 90.50%, out of which about 32% is attributed to this year alone.

### **11.1.9 Chhattisgarh Surguja Power Limited (CSPL)**

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 UMPP in Chhattisgarh. The authorized capital and paid up capital of the company as on 31.3.2013 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 UMPP 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).

#### **11.1.10 Coastal Karnataka Power Limited (CKPL)**

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 UMPP in Karnataka. The authorized capital and paid up capital of the Company, as on 31.3.2013, 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).

#### **11.1.11 Coastal Maharashtra Mega Power Limited (CMMPL)**

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 UMPP in Maharashtra. The authorized capital and paid up capital of the company as on 31.3.2013 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).

#### **11.1.12 Coastal Tamil Nadu Power Limited (CTNPL)**

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 UMPP in the state of Tamilnadu. The authorized capital and paid up capital of the company as on 31.3.2013 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.

#### **11.1.13 CONCOR AIR LIMITED .**

CONCOR Air Ltd, a wholly owned subsidiary of Container Corporation of India Ltd was incorporated in the year 2012. It is incorporated for design, development and operations of the air cargo terminal at Santa Cruz airport in Mumbai. CONCOR Air Ltd has taken over entire air cargo handling in Mumbai and will now be seeking to modernize the facilities and convert services into ultramodern so that air cargo gets a fillip. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 50 crore and ₹36.65 respectively.

#### **11.1.14 Darbhanga Motihari Transmission Company Limited (DMTCL) .**

Darbhang Motihari Transmission Company Ltd. is one of the SPVs and a wholly owned subsidiary of Power Finance Corporation Limited for the development of Eastern Region System Strengthening Scheme-VI. It was incorporated on 18.12.2012 under the Companies Act, 1956 for the development and Strengthening of transmission system with an objective to promote competitive procurement of transmission services and encourage private investments in transmission lines. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each.

#### **11.1.15 Dedicated Freight Corridor Corporation of India Limited (DFCCIL)**

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. DFCCIL is a Schedule-'A' CPSE under the administrative

control of Ministry of Railways. DFCCIL is a Special Purpose Vehicle created to undertake planning and development, mobilization of financial resources, construction, maintenance and operation of Dedicated Freight lines covering about 3338 route kms on Eastern Corridor and Western Corridor of Indian Railways. In its first phase, DFCCIL will be constructing two corridors-the Western DFC and Eastern DFC. The Eastern Corridor, starting from Ludhiana in Punjab will pass through the states of Haryana, Uttar Pradesh, Bihar, and Jharkhand and terminate at Dankuni in West Bengal. The Western Corridor will traverse the distance from Dadri to Mumbai, passing through the states Delhi, Haryana, Rajasthan, Gujarat and Maharashtra.

As on 31.03.2013, the Authorized Share Capital of the Company is ₹ 4000 Crores and the paid up share capital of the company is ₹ 1965.05 Crores. The paid share capital of the company has increased from ₹ 774.29 Crores to ₹ 1965.05 Crores by way of issue of equity shares.

#### **11.1.16 Deoghar Mega Power Limited (DMPL)**

Deoghar Mega Power Ltd. (DMPL) is one of the SPVs and a wholly owned subsidiary of Power Finance Corporation Limited. It was incorporated on 26.4.2006 under the Companies Act, 1956 for the development of UMPP in the state of Jharkhand. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each. DMPL 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.

#### **11.1.17 DGEN Transmission Co. Limited .**

DGEN Transmission Company Limited (formerly known as DGEN and Uttarakhand Transmission Company Limited) was incorporated on 15<sup>th</sup> November 2011 under the Companies Act, 1956 as a wholly owned subsidiary of Power Finance Corporation Limited for the development of the

Transmission Project Associated with DGEN TPS (1200MW) of Torrent Power Ltd. and interconnection between Srinagar and Tehri. The authorized capital and paid up capital of the company as on 31.3.2013 are ₹ 0.05 crore each. Ministry of Power has initiated Tariff Based Competitive Bidding Process, for Development and strengthening of Transmission System, with an objective to promote competitive procurement of transmission services and encourage private investments in transmission lines.

#### **11.1.18 Ghogarpalli Integrated Power Company Limited (GIPCL)**

Ghogarpalli Integrated Power Company Limited (GIPCL) was incorporated on 22<sup>nd</sup> May, 2008 as a wholly owned subsidiary of Power Finance Corporation Ltd. to facilitate the development of UMPP in the state of Orissa. The authorized capital and paid up capital of the company are ₹ 0.05 crore each, as on 31.3.2013. 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.

#### **11.1.19 High Speed Rail Corporation Of India Limited (HSRC) .**

High Speed Rail Corporation of India Ltd. (HSRC) a wholly owned subsidiary of Rail Vikas Nigam Ltd. (RVNL) was incorporated on 25.7.2012. The company has its registered office at New Delhi. The main objects of the company are to cater into and carry on all business related to planning, designing, development, construction, manufacturing, assembling, fabricating, processing, installing, maintenance, operation and financing of railway infrastructure and related logistic support systems. The authorised capital and paid up capital of the company, as on 31.3.2013, are ₹ 5 Crore and ₹ 0.05 crore respectively. Company is yet to commence its operational activities.

#### **11.1.20 HLL Biotech Limited**

HLL Biotech Limited is a subsidiary of HLL Lifecare Limited with its registered office at Kerala. The main objectives of the company are to carry on the business of manufacture and sale of all biological preparations including prophylactic and therapeutic vaccines, pharmaceutical products, preparations and services, Anti-Sera, and Plasma and Hormonal products.

The authorized Share Capital and paid up equity share capital of the company as on 31.03.2013 are ₹180 Crore and ₹ 178.01 crore respectively. The company has power from time to time to increase or reduce its capital. The liability of the members of the company is limited.

#### **11.1.21 Indian Railway Stations Development Corporation Limited (IRSDC) .**

Indian Railway Stations Development Corporation (IRSDC) was incorporated on 12.4.2012 with an authorised capital of ₹ 100 Crore. It is a Joint Venture company of IRCON International Ltd. (IRCON) and Rail Land Development Authority (RLDA). Equity participation of IRCON and RLDA is in the ratio of 51:49 respectively. The main objectives of IRSDC is to develop the Railway Stations across India with primary objective of augmenting and maintaining passenger amenities at stations in a holistic manner. IRSDC, in addition to redevelopment/remodeling/ up gradation of level of passenger amenities, is responsible to maintain station premises for a period of 45 years. The paid up capital of the company, as on 31.3.2013, is ₹ 20 crore.

#### **11.1.22 Jagdishpur Paper Mills Limited (JPML)**

Jagdishpur Paper Mills Limited was incorporated on 8<sup>th</sup> May, 2008 and its register office is at Lucknow. JPML is as a subsidiary of Hindustan Paper Corporation Ltd. (HPC) with an equity holding of 99.99%. The authorized capital and paid up capital of the company are ₹ 5 crore and ₹ 0.05 crore respectively, as on 31.3.2013. During the year 2012-13 the company has incurred a loss of ₹ 0.18 Crores and as per Annual Report, a total sum of ₹ 1.66 crore is due to HPC for pre-incorporation and post-incorporation expenses incurred on behalf of the company.

#### **11.1.23 Jharkhand National Mineral Development Corporation (JNMDC).**

Jharkhand National Mineral Development Corporation Limited was incorporated on 6.8.2012. It is Joint Venture in between NMDC and Jharkhand State Mineral Development Corporation Limited. NMDC is holding 60% equity in JNMDC. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.01 crore each.

#### **11.1.24 Loktak Downstream Hydroelectric Corporation Limited (LDHCL)**

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. 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.

The paid share capital of the company has increased from ₹ 98.46 Crores to ₹ 117.69 Crores by way of issue of equity shares during the year 2012-13.

#### **11.1.25 Mahanadi Basin Power Limited (MBPL)**

Mahanadi Basin Power Limited (MBPL) is wholly owned subsidiary of Mahanadi Coalfields Limited (MCL). MBPL was incorporated as a Public Limited Company as on December, 2011 having its registered office at Mancheswar Rly. Colony, Chandrasekharpur, Bhubaneswar-751017. The Commencement of Business Certificate was issued by RoC on 06.02.2012. The authorized capital and initial paid up capital of MBPL as on 31.03.2013 is ₹ 0.05 Crore each

The company would be inviting proposal on behalf of MBPL to develop, operate and maintain the proposed power project of 2x800 MW capacities Super Critical Thermal Power Plant at District Sundargarh. The proposed project shall be executed on a joint ventures basis by the MBPL in accordance with the terms and conditions of the Share Purchase-cum-Shareholders Agreement amongst the Successful Bidder, MCL and MBPL.

### 11.1.26 MJSJ Coal Limited

MJSJ Coal Ltd. was incorporated on 13<sup>th</sup> 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. Company has deposited ₹ 32.84 Crores to the State Government Account and undertaken the physical possession of 423.445 acres of land. The authorised share capital stood at ₹200 crores whereas it's paid up share capital increased from ₹ 70.10 crores to ₹ 95.10 Crores during the year 2012-13.

MJSJ Coal Ltd. is now in development stage. All its revenue expenditures during the financial year 2012-13 have been transferred to 'Development' and shown as 'Intangible Assets under Development' in the Balance

### 11.1.27 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 16<sup>th</sup> July, 2008. It is a JV with 70% stake of Mahanadi Coalfields Limited (MCL), 15% stake of Neyveli Lignite Corporation Limited (NLC) and 15 % stake of Hindalco Limited (HIL). On 10.11.2005, Government of India had jointly allocated Talabira II and Talabira III coal blocks among MCL, NLC and HIL. The Project comprises of 994.5 Ha of coal bearing area, out of which mineable coal reserve is 553.98 M.Te (in ib seam and Rampur seam). Most of the coal is of F&G grade, which is suitable for Thermal Power Plants. With ultimate capacity of 20 MTY, the mine will have a life of 34 years. The authorized share capital of the company was ₹ 100 crores. The paid up share capital of the company as on 31.03.2013 is ₹ 85.10 Crores. The total area of land acquired 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).

### 11.1.28 Neyveli Uttar Pradesh Power Limited (NUPPL).

Neyveli Uttar Pradesh Power Ltd. was incorporated on 9.11.2012. It is a joint venture in between Neyveli Lignite Corporation (NLC) and Uttarpradesh Rajya Vidyut Utpadn Nigam Ltd. (UPRVUNL) with a object to setting up of 1980 MW coal based Thermal Power Plant at Ghatampur, Uttar Pradesh at an estimated cost of about ₹ 14,375 Crores. Presently, the tender for the Project Consultancy Services has been floated and the preparation of tender specification for the three packages viz, Steam Generator and Auxiliaries, Steam Turbine Generator and Balance of Plant are in process. Notifications under Sec. 4 & 6 of the Land Acquisition Act, 1894 have been issued for acquisition of 1806.66 acres of land for the project and a sum of ₹ 130.32 Crore has been deposited with the Uttar Pradesh Revenue Department towards acquisition of land. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 500 crore and 0.10 crore respectively.

### 11.1.29 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. As per the sanction, Unit-I and Unit-II of the project were to be commissioned by March 2012 and August 2012 respectively, but due to time overrun it is anticipated that the commissioning of these projects will be completed by the end of December 2013 and March 2014 respectively. The land for the project (and colony) measuring 127.465 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, in this regard Government of Tamil Nadu has accorded administrative sanction on 23.12.2011 to

acquire land to the extent of 286.21 acres. The contract for the main plant package of Steam Generator, Turbo Generator and Electrostatic Precipitator, has been awarded to BHEL. Civil construction, structural fabrication and mechanical erection works are in progress. The cumulative expenditure incurred for the project upto 31.03.2013 was ₹ 4128.29 crore. The overall physical progress of the project as on 31.03.2013 stood at 70.60% as against the target of 99.23%. 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 authorized capital and paid up share capital of the company as on 31.03.2013, stood at ₹ 1800 crore and ₹ 1200 crore respectively.

#### **11.1.30 NMDC Power Limited**

NMDC Power Limited was incorporated as a Special Purpose Vehicle (SPV) on December 12, 2011 and is a wholly owned subsidiary company of NMDC Power Ltd. The company was set up for the purpose of captive power supply to the 3-MTPA integrated steel plant being constructed at Nagamar at Chattisgarh.

During end of the financial year 2012-13, authorized share capital of the company stood at ₹ 0.05 Crore and paid up share capital at ₹ 0.05 Crore.

#### **11.1.31 NMDC-CMDC Limited**

NMDC-CMDC Limited was incorporated and registered under the Companies Act, 1956 on 19.06.2008 with its registered office is at Raipur, Chattisgarh. It is a Joint Venture Company of NMDC and Chattisgarh Mineral Development Corporation Limited (CMDC) with equity participation ratio of 51:49 respectively. The object of the company is to get the minning leases in respect of Bailadila Iron Ore Deposit No. 4 & Deposit No. 13 at the earliest and has to develop these mines in scientific and sustainable manner giving due regard to safety, conservation and environment. In this way, the company will cater the growing demand of raw material for iron and steel based industries in the state of Chhattisgarh

and rest of the country. The authorized capital and paid up capital of the company as on 31.03.2013 stood at ₹ 4 Crores and 3.04 Crore respectively.

#### **11.1.32 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 ₹121.36 crores respectively as on 31.03.2013. 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 Darjeeling District of West Bengal and West Sikkim district of Sikkim. The projects undertaken by the company are in construction stage.

#### **11.1.33 Orissa Integrated Power Limited (OIPL)**

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 UMPP in Orissa. It was incorporated on 24<sup>th</sup> August, 2006. The authorized capital and paid up capital of the company, as on 31.3.2013, stood at ₹ 0.05 crore. 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.

#### **11.1.34 Patran Transmission Company Limited (PTCL)**

Patran Transmission Company Ltd. is one of the SPVs and a wholly owned subsidiary of Power Finance Corporation Limited for the development and strengthening of transmission system for Patran 400 kv/S/S. It was

incorporated on 18.12.2012 under the Companies Act, 1956 with an objective to promote competitive procurement of transmission services and encourage private investments in transmission lines. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each.

#### **11.1.35 Power Equity Capital Advisors Private Limited (PECAP)**

Power Equity Capital Advisors Private Limited (PECAP) has been set up as Company under the Companies Act, 1956 on March 25, 2008. As an advisory PECAP was incorporated to provide advisory services related to equity investments in Indian power sector, where PFC held 30% of the total issued and paid up equity share capital. Consequent upon transfer of 70% stake in PECAP to PFC, PECAP has become wholly owned subsidiary of PFC on 11th October, 2011.

During end of the financial year 2012-13, authorized share capital of the company was ₹ 0.10 Crore and paid up share capital was ₹ 0.05 Crore.

#### **11.1.36 Powergrid NM Transmission Limited.**

Powergrid Nm Transmission Limited was registered on 20 May, 2011 and its corporate office at New Delhi. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each..

#### **11.1.37 Powergrid Vemagiri Transmission Limited (PVTL)**

Powergrid Vemagiri Transmission Ltd. (PVTL) was registered on 21 April, 2011 and its corporate office at New Delhi. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore.

#### **11.1.38 Punjab Ashok Hotel Company Limited.**

Punjab Ashok Hotel Co. Ltd. is a Joint Venture (JV) between India Tourism Development Corporation Limited and Punjab Tourism Development Corporation Ltd. It was incorporated

on 11.11.1998. Land measuring 3 acres, on which hotel building is being constructed was provided by the Govt. of Punjab during the year 1998-99. Agreement for the same was executed on 30.3.2000 accordingly the company has been granted lease hold right for 99 years. The authorized and paid up capital as on 31.3.2013 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.

#### **11.1.39 Purulia Kharagpur Transmission Company Limited (PKTCL) .**

Purulia Kharagpur Transmission Company Ltd. (PKTCL) is one of the SPVs and a wholly owned subsidiary of Power Finance Corporation Limited for the development of Eastern Region System Strengthening Scheme-VII. It was incorporated on 15.12.2012 under the Companies Act, 1956 for the development and Strengthening of transmission system with an objective to promote competitive procurement of transmission services and encourage private investments in transmission lines. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each.

#### **11.1.40 RAPP Transmission Company Limited (RTCL).**

RAPP Transmission Company Ltd. is one of the SPVs and a wholly owned subsidiary of Power Finance Corporation Limited for the development of transmission project associated with Part ATS of RAPP U-7&8 in Rajasthan. It was incorporated on 20.12.2012 under the Companies Act, 1956 for the development and Strengthening of transmission system with an objective to promote competitive procurement of transmission services and encourage private investments in

transmission lines. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each.

#### **11.1.41 RITES Infrastructure Services Limited (RISL)**

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 1<sup>st</sup> July, 2010. The paid up share capital of company is ₹ 0.05 crores against the authorised capital of ₹ 5 crores as on 31.03.2013. The company is executing the work of development, operation and maintenance of Multi-functional complexes at 20 railway stations which have been identified by the Ministry of Railways (MOR). The Holding Company (RITES Ltd.) has been constructing Multi-Functional Complexes (MFCs), on behalf of the RISL. During the year under review, physical works of construction and services connections at three stations have been completed and eleven other stations are in advanced stages. The capital work-in-progress as on the date of 31<sup>st</sup> March, 2013 is of ₹4.47 Crores. At present there is no person on the rolls of the company. All its projects under progress which are being executed by RITES on behalf of the company.

#### **11.1.42 Sail Jagadishpur Power Plant Limited (SJPPL)**

SAIL Jagadishpur Power Plant Limited (SJPPL) is wholly owned subsidiary of Steel Authority of India Limited (SAIL) and was incorporated on May'2011 with its registered office at New Delhi. The company has been created as Special Purpose Vehicle (SPV) for installation about 1050 MW capacity gas based combined cycle power plant at Jagdishpur in Distt Sultanpur. At present, the company has submitted application for allocation of 5 MMSCMD natural gas from domestic sources for the proposed power project. It has also submitted an application for allocation of 2000 cubic meter/hr cooling water to Department of Irrigation, Government of

Uttar Pradesh. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each.

#### **11.1.43 SAIL Sindri Projects Limited (SSPL).**

SAIL Sindri Projects Limited (SSPL) is wholly owned subsidiary of Steel Authority of India Limited (SAIL) incorporated on 8.11.2011 with its registered office at Chasnala, Jharkhand. The company has been created as Special Purpose Vehicle (SPV) for setting up of a Fertilizer plant (1.15 MTPA Ures), Steel Plant (5.6 MTPA), Power plant of suitable size, as well management of township and common facilities as part of the revival scheme of the Sindri unit of Fertilizer Corporation of India Limited. The main object of the company is to carry out manufacturing, trading and otherwise dealing in Iron and Steel, Fertilizers and allied materials and generate and supply power. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 0.05 crore each and the company is yet to start its business.

#### **11.1.44 Sakhigopal Integrated Power Company Limited (SIPCL)**

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 UMPP in Orissa. The authorized capital and paid up capital of the company as on 31.3.2013 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.

#### **11.1.45 Sethusamudram Corporation Limited (SCL)**

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. 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. Since, the company is in construction stage in implementing the Sethusamudram Ship channel project and has not commenced its commercial operations till date; statement of Profit & Loss A/c has been prepared. The total cost of the project sanctioned by Government of India is ₹ 2427.40 crores (including financing cost of ₹194.40 crore). Out of this sanctioned amount, the company has incurred capital cost of ₹ 831.13 Crores as on 31.03.2013. The company has an authorized capital of ₹ 1000 crores and out of it ₹ 745 crores has been subscribed by the various stakeholders. 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. The remaining ₹ 150 Crores has been contributed by Dredging Corporation of India, Chennai Port Trust, Ennore Port Limited, Visakhapatnam Port Trust and Paradip Port Trust at ₹ 30 crores each.

#### **11.1.46 SIDCUL CONCOR Infra Limited (SCIL).**

M/s. SIDCUL CONCOR Infra Company Limited, was incorporated on 21 March, 2013 for development of Logistics Parks in the state of Uttarakhand. It is a Joint Venture Company (JVC) with shareholding of 74% and 26% of CONCOR and State Infrastructure and Industrial Development

Corporation of Uttarakhand Limited (SIIDCUL) respectively. The company has already commenced development of a Logistics Park at Pantnagar at Udham Singh Nagar District of Uttar Pradesh. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 100 crore each. The first financial year of the company will be ending on 31.03.2014.

#### **11.1.47 Tatiya Andhra Mega Power Limited (TAMPL).**

Tatiya 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 UMPP in Andhra Pradesh. The authorized capital and paid up capital of the company, as on 31.3.2013, 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.

#### **11.1.48 TCIL BINA Toll Road Limited (TBTRL).**

TCIL Bina Toll Road Ltd. is one of the SPVs and a wholly owned subsidiary of Telecommunications Consultants India Limited (TCIL). It was incorporated on 11.7.2012 under the Companies Act, 1956 with its registered office at New Delhi. Main activities of this company are to execute infrastructural projects on design, built, finance, operate and transfer (DBFOT) basis. The authorized capital and paid up capital of the company, as on 31.3.2013, are ₹ 20 crore and ₹ 0.05 crore respectively.

## Chapter-12

# Revival and Restructuring of Sick / loss making CPSEs

As the Central Public Sector Enterprises (CPSEs) operate under dynamic market conditions, it is quite natural to see ups-and-downs in their performance. Some CPSEs have, however, 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 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 as an advisory body for the revival and restructuring of sick and loss making CPSE's. Since 2004, there has been significant improvement in the overall condition of these enterprises. In comparison to 90 sick CPSEs in March 2005, there were 79 sick CPSEs (as per BRPSE definition) in March 2013 (Table-12.1).

**Table 12.1**  
**Sick & Loss making CPSEs**  
**(2004-05 to 2012-13)**

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)
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	16231
2010-11	45	65146	63	62	21817
2011-12	44	65642	64	64	61514
2012-13	44	55656	63	79	62767

Note: \*Operating CPSEs as registered with BIFR

\*\* Operating CPSEs as per the definition of BRPSE

## 12.1 Reasons for Losses and Sickness in CPSEs

The reason for losses and sickness in CPSEs 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) belonged 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; pharmaceutical companies like Bengal Chemicals & Pharmaceuticals Ltd., transportation / shipping companies like Central Inland Water Transport Corporation and Hooghly Dock & Port Engineering Ltd. 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) are green-field companies. These became sick over the years on account of inadequate job orders, high man power cost, lack of finance, technological obsolescence, high input costs and competition from cheap imports. These included companies like Heavy Engineering Corporation, Fertilizer Corporation of India and Hindustan Antibiotics Ltd. Some of the loss making companies, such as, Jute Corporation of India and Cotton Corporation of India have had macro-

economic objectives to serve like procuring agricultural goods from farmers at minimum support prices (MSP) 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 at least five years of registration) whose accumulated losses are equal to or have exceeded their net worth may be referred to the 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 2011, 63 CPSEs have been referred to BIFR (Table 12.2). There were no references made to BIFR between 2008 to 2013. 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	2012	0
2002	3	2013	0
		Total	63 #

Note: \*This includes the subsidiaries of NTC, which have been merged into one company and 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, Bharat Refractories Limited (BRL) and Maharashtra Elektros melt Limited have 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 63 CPSEs have been referred to BIFR (uptil 2007), there are only 44 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). The status of 44 operating CPSEs in BIFR as on 31.3.2013 is as follows:

- Three CPSEs namely Vignyan Industries Limited, North Eastern Regional Agricultural Marketing Corporation Limited and Bharat Coking Coal Ltd.

have since been declared 'No Longer Sick'.

- Six CPSEs namely Bharat Immunologicals and Biologicals Corporation Limited, Hindustan Salts Limited, Projects and Development India Ltd., Hindustan Insecticides Limited, Hindustan Organic Chemicals Limited and Tyre Corporation Ltd. have been dropped by the Board 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 63 sick industrial CPSEs, registered with BIFR.

Table 12.3

**Status of CPSEs registered with BIFR**

(as on 31.03.2013)

Sl. No.	Particulars	Number
1.	Revival Scheme sanctioned by BIFR	14
2.	Revival Scheme sanctioned by AAIFR	1
3.	Declared no longer sick	3
4.	Dropped on net worth becoming positive	6
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.	Failed and re-opened	1
10.	Draft Rehabilitation Scheme (DRS) awaited	12
11.	Remanded by AAIFR	1
	Total	63

- BIFR has already disposed of 49 cases of CPSEs either through sanctioning revival schemes (15 cases) or declaring

‘no longer sick’ (3 cases) or dropping due to net worth becoming positive (6 cases) or dismissing the cases as non-maintainable (4 cases) or deregistered with BIFR / Others (2 cases) or recommending winding up (19 cases) (Annex-12.1).

- BIFR is yet to take a view in regard to 14 cases of CPSEs. The process of sanctioning of revival / rehabilitation schemes as well as the process of appointment of Official Liquidator (OL) for winding up of CPSEs by BIFR have, however, been slow on account of involvement of multiple agencies.

### 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 (OTS) with banks/financial institutions, etc.
- (ii) **Business restructuring:** Business restructuring involves change of management, hiving off viable units from CPSEs for formation of separate company, closure of unviable units, formation of joint ventures by induction of partners capable of providing technical, financial and marketing inputs, change in product mix, improving marketing strategy, etc. on case to case basis.

- (iii) **Manpower rationalization:** Salaries and wages are often a major component of cost for an enterprise. In order to shed excess manpower, CPSEs have often resorted to Voluntary Retirement Scheme (VRS) from time to time. In case of CPSEs found unviable and where a decision has been taken to close the unit, it is the Voluntary Separation Scheme (VSS) that is introduced. Retrenchment of employees is adopted only as the last resort and in exceptional circumstances.

### 12.4 Board for Reconstruction of Public Sector Enterprises (BRPSE)

The Government constituted Board for Reconstruction of Public Sector Enterprises (BRPSE) vide Resolution dated 6<sup>th</sup> December, 2004 as an advisory body to address the task of strengthening, modernizing, reviving, and restructuring of Central Public Sector Enterprises (CPSEs) and to advise the Government on strategies, measures and schemes related to them.

Committee of Secretaries (CoS) in its meeting held on 22.2.2013 has mandated BRPSE to examine the proposal of enhancement of superannuation from 58 years to 60 years in sick CPSEs and to give its recommendations to the concerned Ministry/Department.

The Board comprises of 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 PSE 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 necessary secretarial assistance to the Board.

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.

### 12.4.1 Revival Package of CPSEs

Up to October, 2013, proposals of 68 sick CPSEs have been referred to BRPSE. Out of which, the Board has made recommendations in respect of 64 cases. In addition, the Board has also recommended to the Government to accord “in principle” approval for rescinding of its earlier decision to close the units of Fertilizers Corporation of India (FCIL) and Hindustan Fertilizers Corporation Ltd. (HFCL) and to explore various options for their revival. 4 cases of CPSEs (Nagaland Pulp & Paper Co., Hindustan Fertilizer Corporation Ltd. (HFCL), Fertilizer Corporation of India Ltd. (FCIL), and Birds Jute & Exports Ltd.) have been returned to the concerned administrative Ministries/Departments for further information. Out of these, revival proposal for 3 CPSEs- Nagaland Pulp & Paper Co., HFCL & FCIL have been approved directly by CCEA on the basis of proposals of the concerned Administrative Ministries.

The Board during the period from November, 2012 to October, 2013 recommended revival package to ITI Ltd. & HMT Bearings Ltd. and closure of STCL Ltd., Hindustan Photo Films Manufacturing Co. Ltd. and Biecco Lawrie Ltd. The Board during this period reviewed the status of implementation of revival package sanctioned by Government to 13 CPSEs as mentioned below:

- (i) Hindustan Antibiotics Ltd.
- (ii) Bengal Chemicals & Pharmaceuticals Ltd.
- (iii) HMT Machine Tools Ltd.
- (iv) Cement Corporation of India Ltd.
- (v) Instrumentation Ltd., Kota
- (vi) Bharat Pumps & Compressors Ltd.
- (vii) Hindustan Organic Chemicals Ltd
- (viii) Heavy Engineering Corporation Ltd.
- (ix) National Film Development Corporation Ltd.
- (x) Hindustan Insecticides Ltd.
- (xi) NEPA Ltd

(xii) Central Electronics Ltd

(xiii) Hindustan Prefab Ltd

The Board also reviewed the status of its recommendations in respect of Hindustan Steelworks Construction Ltd.

In addition, the Board also reviewed, on suo moto, the performance of two incipient sick CPSEs namely (i) Mahanagar Telecom Nigam Ltd. and (ii) Bharat Sanchar Nigam Ltd.

Besides, BRPSE has recommended extension of superannuation age from 58 to 60 years in National Projects Construction Corporation Ltd.

Out of these 64 cases, the Government has approved, till October, 2013, 44 revival proposals of CPSEs and winding up of three (3) enterprises namely Bharat Ophthalmic Glass Ltd., Bharat Yantra Nigam Ltd. and STCL Ltd. envisaging total assistance of ₹ 28354 crore including ₹ 5286 crore as cash assistance and ₹ 23068 crore as non-cash assistance. In case of 3 sick CPSEs, namely, Bharat Coking Coal Ltd. & Eastern Coal Fields Ltd. and Hindustan Fluorocarbons Ltd., their Holding CPSEs namely, Coal India Ltd. and Hindustan Organic Chemicals Ltd. respectively are implementing the revival plan. The enterprise-wise details of cash and non-cash assistance in respect of approved proposals are given in **Annex-12.2**. The Broad categories of the approval of the Government/Holding CPSEs in respect of the aforesaid 50 CPSEs are given in **Annex-12.3**.

Besides, based on the recommendations of BRPSE, the Government has also approved a scheme for attracting Top Managerial Talent to sick/loss making.

### 12.5 Performance of sick CPSEs

Out of the 47 CPSEs approved for revival till date, 19 sick CPSEs have been declared turnaround as they have posted profits consecutively for 3 or more years after the assistance by the Government. Performance of 47 CPSEs is given in **Annex-12.4**.

#### 12.5.1 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 was in the list of sick CPSEs of BRPSE which has shown profit in each of the three preceding accounting years and has a positive net worth after implementation of the revival package. 19 such CPSEs (**Annex-12.5**) have been declared “turnaround CPSEs”.

**Details on the CPSEs Registered with BIFR**  
(on 31.03.2013)

S. No.	Case No. and year of reference	CPSEs	Date of Orders
(1)	(2)	(3)	(4)
<b>I. Declared 'No Longer Sick'</b>			
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
3.	504/1995 / 502/2001	Bharat Coking Coal Ltd., Dhanbad (Jharkhand)	11.2.2004 / 18.05.2009 / 28.10.2009 / 3.1.2013
<b>II. Dropped (Positive Networth)</b>			
4.	502/1997/ 503/1998	Bharat Immunologicals & Biologicals Corporation Limited, BulandSahar (Uttar Pradesh)	1.8.2002
5.	502/2000	Hindustan Salts Limited, Jaipur (Rajasthan)	22.8.2005 / 15.12.2008
6.	521/1992	Projects and Development India Ltd., Dhanbad (Jharkhand)	26.3.2004 / 19.4.2006
7.	501/2004	Hindustan Insecticides Ltd., New Delhi (Delhi)	18.9.2007
8.	501/2005	Hindustan Organic Chemicals Limited, Rasayani, Raigad (Maharashtra)	21.11.2005 / 28.05.2008
9.	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 / 21.12.2011
<b>III. Dismissed as 'Non-maintainable'</b>			
10.	502/1992 / 601/1998	Nagaland Pulp & Paper Co. Ltd., Mokochung, (Nagaland)	13.11.1995 / 25.5.2007
11.	504/1997	Manipur State Drugs & Pharmaceuticals Ltd., Imphal (Manipur) \$\$	17.11.1997
12.	502/2002	Central Coalfields Ltd., Ranchi (Jharkhand)	29.11.2002
13.	517/1992/ 504/2002	BieccoLawrie Limited, Kolkata (West Bengal) @	27.3.2003
<b>IV. Scheme Sanctioned by AAIFR</b>			
14.	502/1999	Hindustan Vegetable Oils Corpn. Ltd., New Delhi (Delhi) @	7.12.2001 / 23.07.2008
<b>V. Revival Scheme sanctioned</b>			
15.	518/1992	The British India Corpn. Ltd., Kanpur, (Uttar Pradesh) @	17.12.2002/ 29.11.2007
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.	506/1993	National Jute Manufactures Corporation Ltd. Kolkata (West Bengal)	8.7.2004 / 24.11.2008 / 05.03.2009 / 31.3.2011

19.	509/1993	Instrumentation Ltd., Kota (Rajasthan)	23.12.1998 / 24.05.2006 / 01.10.2009
20.	507/1994	Hindustan Fluorocarbons Ltd., Hyderabad (Andhra Pradesh) @	24.7.2003
21.	501/1996	Cement Corporation of India Ltd., New Delhi (Delhi)	05.12.2005 / 21.3.2006 / 17.06.2008
22.	501/1997	Hindustan Antibiotics Limited, Pune (Maharashtra)	5.6.2007 / 14.10.2008
23.	501/1998 / 501/2000	Eastern Coalfields Limited, Burdwan (West Bengal) @	01.06.1998/ 2.11.2004 / 12.6.2007
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 / 25.07.2012
27.	501/1999	Birds Jute and Exports Ltd., Kolkata (West Bengal) @	24.6.2004 / 07.08.2008 / 2.8.2012
28.	504/2004	ITI Limited, Bangalore (Karnataka)	3.10.2005 / 27.11.2008 / 23.02.2009 / 30.12.2009 / 27.11.2012

<b>VI.</b>	<b>Winding up Recommended</b>		
29.	507/1992	TriveniStructurals Ltd. , Allahabad (Uttar Pradesh)	5.6.2003
30.	511/1992	Heavy Engineering Corpn. Ltd., Ranchi (Jharkhand)	6.7.2004
31.	514/1992	Orissa Drugs & Chemicals Ltd., Bhubaneswar (Orissa)	8.4.2003
32.	503/1995	Hindustan Photofilms Mfg. Co. Ltd., Ootacamund (Tamilnadu)	30.1.2003
33.	502/1996	Maharashtra Antibiotics & Pharma. Ltd., Nagpur (Maharashtra) \$\$	4.7.2000 / 16.12.2008 / 17.06.2010
<b>VII.</b>	<b>CPSEs recommended for winding up and have been 'closed' \$\$</b>		
34.	505/1992	Bharat Gold Mines Ltd., Kolar Gold Fields (Karnataka)	12.6.2000
35.	506/1992	Tannery and Footwear Corporation of India Ltd., Kanpur (Uttar Pradesh)	14.2.1995
36.	508/1992	Cycle Corporation of India Limited, Kolkata (West Bengal) @	10.7.2000
37.	510/1992	Mining and Allied Machinery Corporation Ltd. , Durgapur (West Bengal)	29.6.2001
38.	513/1992	National Bicycle Corporation of India Ltd., Mumbai (Maharashtra) @	20.12.1993
39.	520/1992	Bharat Process and Mechanical Engineers Ltd., Kolkata (West Bengal) @	22.7.1996
40.	524/1992	Weighbird India Limited, Kolkata (West Bengal) @	17.2.1997
41.	526/1992	Bharat Brakes & Valves Ltd., Kolkata (West Bengal) @	27.9.2002
42.	527/1992	Cawnpore Textiles Ltd., Kanpur (Uttar Pradesh) @	19.1.1995
43.	529/1992	Smith Stanistreet& Pharmaceuticals Ltd., Kolkata (West Bengal) @	3.12.2001

44.	532/1992	Bharat Ophthalmic Glass Ltd., Durgapur (West Bengal)	19.6.2003
45.	504/1994	Southern Pesticides Corporation Limited, Hyderabad (Andhra Pradesh)	1.11.2001
46.	506/1994	Rayrolle Burn Ltd., Kolkata (West Bengal) @	13.7.2001
47.	503/1999	Pyrites, Phosphates & Chemicals Ltd., Rohtash (Bihar)	20.11.2002
<b>VIII. Others / Abated / Deregistered from BIFR</b>			
48.	501/1992	Bharat Pumps & Compressors Ltd., Allahabad (Uttar Pradesh)	6.2.2007
49.	519/1992	The Elgin Mills Co. Ltd., Kanpur (Uttar Pradesh) @ \$\$	13.3.2007
<b>IX. Draft Revival Scheme (DRS) Awaited</b>			
50.	503/1992	Indian Drugs and Pharmaceuticals Limited, Gurgaon (Haryana)	28.3.2006 / 29.9.2008
51.	504/1992	Scooters India Ltd., Lucknow (Uttar Pradesh)	1.7.2000 / 17.06.2010 / 16.01.2013
52.	509/1992	Richardson & Crudass (1972) Ltd., Mumbai (Maharashtra) @	24.9.2007 / 04.09.2008 / 27.05.2009 / 10.09.2009
53.	515/1992	Fertilizers Corp. of India Ltd., New Delhi (Delhi)	2.4.2004 / 12.11.2010
54.	516/1992	Hindustan Fertilizer Corp. Ltd., New Delhi (Delhi)	1.2.2007 / 05.12.2008 / 26.03.2009 / 19.10.2009
55.	588/1994	Burn Standard Co. Ltd., Kolkata (West Bengal) @	16.4.2007 / 30.9.2008 / 12.11.2009
56.	502/1998	NEPA Ltd., Nepanagar (Madhya Pradesh)	29.5.2007 / 15.05.2008 / 26.02.2009 / 11.09.2009 / 21.6.2010
57.	501/2001	Bharat Wagon & Engg. Co. Limited, Patna (Bihar) @	11.2.2004 / 25.11.2008 / 24.06.2009 / 16.11.2009
58.	503/505/2002	Hindustan Cables Ltd., Kolkata (West Bengal)	21.03.2003 / 25.07.2008 / 13.2.2013
59.	505/2004	Tungabhadra Steel Products Limited, Tungabhadra Dam (Karnataka)	4.8.2005 / 11.12.2006 / 09.03.2009 / 24.08.2009 / 14.02.2013
60.	502/2005	HMT Bearings Limited, Hyderabad (Andhra Pradesh)	13.2.2006 / 23.04.2009 / 12.11.2009 / 24.1.13
61.	501/2007	Madras Fertilizer Ltd., Chennai (Tamilnadu)	02.04.2009 / 15.10.2009 / 26.2.2013
<b>X. Failed &amp; Reopened</b>			
62.	533/1992	Bengal Chemicals & Pharmaceuticals Ltd., Kolkata (West Bengal) @	31.3.1995 / 03.02.2009
<b>XI. Remanded by AAIFR</b>			
63.	538/1992	Bengal Immunity Limited, Kolkata (West Bengal) @ \$\$	25.2.2003 / 31.1.2011

@ Taken over PSEs (23) \$\$ since closed (18) % No More a CPSE (1)

## Annex-12.2

**Cash and Non-cash Assistance approved by the Government/Holding Company in respect of BRPSE recommended proposals upto 31.10.2013**

S. No.	Name of the CPSE	Assistance ( ₹ in Crore)		
		Cash #	Non-Cash @	Total
Department of Heavy Industries				
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.	87.06	457.14	544.20
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.	234.18	634.94	869.12
19	Scooters India Ltd.	90.38	111.58	201.96
20	HMT Ltd.	447.92	635.56	1083.48
Ministry of Mines				
21	Hindustan Copper Ltd.	--	612.94	612.94
22	Mineral Exploration Corporation Ltd.	-	104.64	104.64
Ministry of Shipping				
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
Department of Defence Production				
25	Hindustan Shipyard Ltd.	452.68	372.22	824.90
Ministry of Steel				
26	MECON Ltd.	93.00*	23.08	116.08
27	Bharat Refractories Ltd.	--	479.16	479.16
Ministry of Textiles				
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.	517.33	6815.06	7332.39
Department of Pharmaceuticals				

31	Hindustan Antibiotics Ltd.	137.59	267.57	405.16
32	Bengal Chemicals & Pharmaceuticals Ltd.	207.19	233.41	440.60
<b>Department of Chemicals &amp; Petrochemicals</b>				
33	Hindustan Organic Chemicals Ltd.	250.00	110.46	360.46
34	Hindustan Insecticides Ltd.	-	267.29	267.29
<b>Department of Fertilizers</b>				
35	Fertilizers & Chemicals (Travancore) Ltd.	-	670.37	670.37
<b>Department of Scientific &amp; Industrial Research</b>				
36	Central Electronics Ltd.	-	16.28	16.28
<b>Department of Agriculture &amp; Co-operation</b>				
37	State Forms Corporation of India Ltd.	21.21	124.42	145.63
<b>Ministry of Railways</b>				
38	Konkan Railway Corporation Ltd.	857.05	3222.46	4079.51
39	Bharat Wagon & Engineering Company Ltd.	49.45	258.73	308.18
40	Braithwaite & Company Ltd.	4.00	280.21	284.21
41	Burn Standard Company Ltd.	75.43	1139.16	1214.59
<b>Ministry of Water Resources</b>				
42	National Projects Construction Corporation Ltd.	--	219.43	219.43
<b>Ministry of Housing &amp; urban Poverty Alleviation</b>				
43	Hindustan Prefab Ltd.	--	128.00	128.00
<b>Ministry of Information &amp; Broadcasting</b>				
44	National Film Development Corporation Ltd.	3.00	28.40	31.40
<b>Ministry of Petroleum &amp; Natural Gas</b>				
45	Biecco Lawrie Ltd.	--	59.60	59.60
<b>Ministry of Development of North Eastern Region</b>				
46	North Eastern Handicrafts and Handlooms Development Corporation Ltd.	8.50	83.06	91.56
<b>Department of Commerce</b>				
47.	STCL Ltd.##	--	--	--
	<b>Total</b>	<b>5286.24</b>	<b>23068.03</b>	<b>28354.27</b>
<b>Implemented by Holding Companies</b>				
<b>Department of Chemicals &amp; Petrochemicals</b>				
1	Hindustan Fluorocarbons Ltd.	12.93	57.31	70.24
<b>Ministry of Coal</b>				
2	Eastern Coal Fields Ltd.	--	2470.77	2470.77
3	Bharat Coking Coal Ltd.	1350.00	3032.00	4382.00
	<b>Total</b>	<b>1362.93</b>	<b>5560.08</b>	<b>6923.01</b>

**Broad categories of approval**

<b>S I . No.</b>	<b>Name of the CPSE</b>	<b>Name of the Ministry /Department</b>
	<b>Revival as a CPSE</b>	
1	Hindustan Salts Ltd., Jaipur, Rajasthan	D/o Heavy Industry
2	Bridge & Roof Co. (India) Ltd., Kolkata	-do-
3	BBJ Construction Co. Ltd., Kolkata	-do-
4	NEPA Ltd., Nepa Nagar, MP	-do-
5	Bharat Pumps & Compressors Ltd., Allahabad, UP	-do-
6	Cement Corporation of India Ltd., Delhi	-do-
7	Heavy Engineering Corporation Ltd., Ranchi, Jharkhand	-do-
8	Andrew Yule & Co. Ltd., Kolkata	-do-
9	Instrumentation Ltd., Kota, Rajasthan	-do-
10	HMT Ltd., Bangalore	-do-
11	Scooters India Ltd., Lucknow, UP	-do-
12	British India Corporation Ltd., Kanpur, UP	M/o Textiles
13	National Textiles Corporation Ltd.	-do-
14	National Jute Manufactures Corporation Ltd., Kolkata	-do-
15	Fertilizers & Chemicals Travancore Ltd., Kochi, Kerala	D/o Fertilizers
16	Hindustan Organic Chemicals Ltd., Mumbai	D/o Chemicals & Petrochemicals
17	Hindustan Insecticides Ltd., Delhi	-do-
18	Hindustan Antibiotics Ltd., Pune, Maharashtra	D/o Pharmaceuticals
19	Bengal Chemicals & Pharmaceuticals Ltd., Kolkata	-do-
20	Mineral Exploration Corporation Ltd., Nagpur, Maharashtra	M/o Mines
21	Hindustan Copper Ltd., Kolkata	-do-
22	Central Electronics Ltd., Delhi	D/o Scientific & Industrial Research
23	National Projects Construction Corporation Ltd., Delhi	M/o Water resources
24	MECON Ltd., Ranchi, Jharkhand	M/o Steel
25	State Farms Corporation of India Ltd., Delhi	D/o Agriculture & Co-operation
26	Biecco Lawrie Ltd.	M/o Petroleum & Natural Gas
27	Konkan Railway Corporation Ltd., Delhi	M/o Railways
28	Hindustan Prefab Ltd.	M/o Housing & Urban Poverty Alleviation
29	North Eastern Handicrafts and Handlooms Development Corporation Ltd.	M/o Development of North Eastern Region
30	National Film Development Corporation Ltd.	M/o Information & Broadcasting
	<b>Revival through Joint Venture/disinvestment</b>	
1	Tungabhadra Steel Products Ltd., Bellary, Karnataka	D/o Heavy Industry
2	Richardson & Cruddas Ltd., Mumbai	-do-
3	Tyre Corporation of India Ltd., Kolkata	-do-
4	HMT Bearings Ltd., Hyderabad, AP	-do-
5	HMT Machine Tools Ltd., Bangalore, Karnataka	-do-
6	Central Inland Water Transport Corporation Ltd., Kolkata	M/o Shipping
7	Hooghly Dock & Port Engineers Ltd., Kolkata	-do-
	<b>Revival through merger</b>	D/o Heavy Industry

#	Cash Assistance involve budgetary support through equity/loan/grants	\$\$	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.
@	Non-cash Assistance 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	\$\$\$	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.
\$	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		

1	Praga Tools Ltd.	-do-
2	Bharat Heavy Plate Vessels Ltd	-do-
3	Bharat Refractories Ltd.	M/o Steel
	<b>Revival through takeover</b>	
1	Hindustan Shipyard Ltd.	D/o Defence Production
2	Burn Standard Company Ltd.	M/o Railways
3	Braithwaite and Company Ltd.	-do-
4	Bharat Wagon & Engineering Company Ltd.	-do-
	<b>Revival through holding company</b>	
1	Hindustan Fluorocarbons Ltd.	D/o Chemicals & Petrochemicals
2	Eastern Coal Fields Ltd.	M/o Coal
3	Bharat Coking Coal Ltd.	-do-
	<b>Closure</b>	
1	Bharat Ophthalmic Glass Ltd.	D/o Heavy Industry
2	Bharat Yantra Nigam Ltd.	-do-
3	STCL Ltd	D/o Commerce

**PERFORMANCE OF 47 CPSES APPROVED FOR REVIVAL  
BY GOVERNMENT**

( ₹ in Crore)

S. No.	Name of the Ministry/ Department/ CPSE	Date of approval of Govt.	Net profit						Net worth as on
			06-07	07-08	08-09	09-10	10-11	11-12	
									31.3.12
1	<b>Department of Heavy Industry</b>								
	Hindustan Salts Ltd.	4.5.2005	-0.43	0.03	0.64	0.03	-0.49	<b>0.22</b>	24.29
2	Tyre Corporation of India Ltd.	19.4.2007/ 6.11.2008	-47.93	-49.22	541.15*	-14.66	-13.23	-20.86	7.54
3	HMT Bearings Ltd.	3.11.2005	-7.16	-20.72	-11.07	-15.31	-21.32	-10.12	-74.85
4	Praga Tools Ltd.**	20.10.2005	91.92	--	--				
5	Bharat Pumps & Compressors Ltd.	7.12.2006	19.11	30.47	18.56	25.65	9.53	-0.91	140.33
6	Tungabhadra Steel Products Ltd.	2.6.2006	-37.5	-20.45	-18.44	-25.76	-26.12	-28.75	-339.81
7	NEPA Ltd.	6.9.2012	-44.47	-37.67	-46.08	-55.32	-70.40	-72.90	35.07
8	Richardson & Cruddas Ltd.	9.3.2006	-30.72	-59.6	-30.3	-27.38	-21.55	-16.26	-358.77
9	Cement Corporation of India Ltd.	9.3.2006	166.61*	40.89	52.55	52.74	27.13	<b>19.43</b>	-150.27
10	HMT Machine Tools Ltd.	1.2.2007	-149.78	-40.5	-37.17	-45.80	-93.06	-46.14	-158.01
11	Heavy Engineering Corporation Ltd.	15.12.2005	2.86	7.01	18.37	44.03	38.14	<b>8.58</b>	-170.26
12	Bharat Heavy Plate & Vessels Ltd.@	26.11.2007	-34.7	-26.73	96.36	-8.60	8.78	<b>10.44</b>	-185.32
13	Instrumentation Ltd.	11.2.2009	-27.8	-33.37	282.59*	333.62*	-36.56	-67.69	-38.58
14	Andrew Yule & Co. Ltd.	22.2.2007	-89.57	5.33	29.36	75.38	41.32	<b>11.85</b>	136.18
15	BBJ Construction Co. Ltd.	16.6.2005	1.22	1.62	2.53	2.76	3.60	<b>4.77</b>	30.12
16	Bridge & Roof Co. (India) Ltd.	25.8.2005	4.47	6.18	21.68	42.00	57.68	<b>45.80</b>	257.21
17	Scooters India Ltd.	19.5.2011/ 31.1.2013		-22.47	-27.65	-28.01	-17.11	-19.94	-67.99

18	HMT Ltd.	18.4.2013						-82.20	535.80
<b>Ministry of Textiles</b>									
19	British India Corporation Ltd.	9.6.2011	-13.4	31.27*	-44.02	-42.63	-50.82	-58.34	-327.71
20	National Textiles Corporation Ltd.	2.5.2005	-530.05	-510.19	4179.45*	103.13*	1304.24*	<b>130.14*</b>	1860.34
21	National Jute Manufactures Corporation Ltd.	19.3.2010/ 25.11.2010		-505.17	-583.67	6784.31*	-129.44	-38.21	-221.64
<b>Department of Fertilizers</b>									
22	Fertilizers & Chemicals Travancore Ltd	30.3.2006	-124.73	8.97	42.95	-103.84	-49.33	<b>19.80</b>	162.25
<b>Department of Pharmaceuticals</b>									
23	Hindustan Antibiotics Ltd.	9.3.2006	200.49*	-20.71	-22.09	-44.68	-42.42	-72.10	-201.81
24	Bengal Chemicals & Pharmaceuticals Ltd.	21.12.2006	-4.69	-10.69	-3.52	-10.54	-9.16	-15.92	-1.76
<b>Department of Chemicals &amp; Petrochemicals</b>									
25	Hindustan Organic Chemicals Ltd.	9.3.2006	17.04	13.61	-25.28	-72.58	25.72	-78.07	14.00
26	Hindustan Insecticides Ltd.	27.7.2006	5.66	6.52	2.71	3.06	1.58	<b>1.60</b>	87.02
27	Hindustan Fluorocarbons Ltd., Hyderabad, A.P	10.1.2011					2.23	<b>2.52</b>	-24.63
<b>Ministry of Coal</b>									
28	Eastern Coalfields Ltd.	5.10.2006	110.6	-1029	-2109	333.40	106.57	<b>962.13</b>	-4946.85
29	Bharat Coking Coal Ltd.	25.2.2010					1093	<b>822</b>	-3486
<b>Ministry of Steel</b>									
30	MECON Ltd.	8.2.2007	20.38	33.32	65.89	82.62	93.68	<b>136.36</b>	338.15
31	Bharat Refractories Ltd.#	24.4.2008	-15.32	4.43	7.37	-10.88	20.67	<b>11.41</b>	61.12
<b>Ministry of Shipping</b>									
32	Central Inland Water Transport Corporation Ltd.	1.12.2005	263.07*	1.18	-114.81	-1.82	-4.68	-13.09	-46.00
33	Hoogly Dock & Port Engineers Ltd.	13.10.2011		-51.89	-52.72	-54.42	-10.50	<b>452.93*</b>	-144.48

<b>Department of Defence Production</b>									
34	Hindustan Shipyard Ltd.	24.12.2009/ 23.3.2011	300.93*	11.34	-140.01	2.32	55.00*	-85.98	-714.00
<b>Department of Agriculture &amp; Cooperation</b>									
35	State Farms Corporation of India Ltd.	3.1.2008	0.3	12.29	9.77	21.53	29.87	<b>38.96</b>	203.79
<b>Ministry of Mines</b>									
36	Mineral Exploration Corporation Ltd.	27.7.2006	59.57*	6.11	1.24	14.46	11.95	<b>17.32</b>	155.16
37	Hindustan Copper Ltd.	26.6.2007	313.94	246.46	-10.31	154.68	224.10	<b>323.44</b>	1397.64
<b>Ministry of Water Resources</b>									
38	National Projects Construction Corporation Ltd.	26.12.2008	-76.56	-36.62	-24.34	31.29	29.70	<b>42.18</b>	-3.83
<b>Ministry of Railways</b>									
39	Konkan Railway Corporation Ltd.	4.12.2008	-233.28	-145.79	-80.1	11.63	1.83	<b>18.74</b>	1575.61
40	Braithwaite and Co. Ltd.	29.12.2005	0.57	0.55	1.5	1.75	6.18	<b>6.89</b>	29.73
41	Bharat Wagons & Engineering Co. Ltd.	26.6.2008/ 7.2.2008/ 2.7.2009	-24.14	-13.62	-8.63	-9.04	-9.99	-8.67	-24.93
42	Burn Standard Company Ltd.	10.6.2010	-151.86	-151.29	-157.59	-136.36	*1165.68	-76.10	427.54
<b>Department of Scientific &amp; Industrial Research</b>									
43	Central Electronics Ltd.	3.8.2006	2.85	1.02	1.29	0.12	-17.25	-15.91	8.03
<b>Ministry of Housing &amp; Urban Poverty Alleviation</b>									
44	Hindustan Prefab Ltd.	20.8.2009	-14.63	-13.75	7.75	2.47	4.61	<b>2.47</b>	12.61
<b>Ministry of Petroleum &amp; Natural Gas</b>									
45	Biecco Lawrie Ltd.	25.4.2011	2.31	3.22	2.23	1.73	3.75	-20.13	10.08
<b>Ministry of Information &amp; Broadcasting</b>									
46	National Film Development Corporation Ltd.	16.9.2010	-5.27	-2.76	-11.13	-7.13	1.69	<b>4.08</b>	27.41
<b>Ministry of Development of North Eastern Region</b>									
47	North Eastern Handicrafts and Handlooms Development Corporation Ltd.	21.2.2013				-1.82	-1.74	-1.51	-30.36

\*Includes extra-ordinary income, with drawl of provisions, etc; \*\*merged with HMT Machine Tools Ltd.# merged in SAIL ;@merged in BHEL

## LIST OF 19 TURNAROUND SICK CPSEs

(₹ in Crore)

S. No.	Name of the Ministry/ Department/CPSE	Net profit				
		2008-09	2009-10	2010-11	2011-12	2012-13
	<b>Department of Heavy Industry</b>					
1	Bharat Pumps & Compressors Ltd.	18.56	25.65	9.53	-0.91	
2	Cement Corporation of India Ltd.	52.55	52.74	27.13	19.43	
3	Heavy Engineering Corporation Ltd.	18.37	44.03	38.14	8.58	
4	Andrew Yule & Co. Ltd.	29.36	75.38	41.32	11.85	
5	BBJ Construction Co. Ltd.	2.53	2.76	3.60	4.77	
6	Bridge & Roof Co. (India) Ltd.	21.68	42.00	57.68	45.80	
	<b>Department of Chemicals &amp; Petrochemicals</b>					
7	Hindustan Insecticides Ltd.	2.71	3.06	1.58	1.60	
	<b>Ministry of Steel</b>					
8	MECON Ltd.	65.89	82.62	93.68	136.36	
9	Sail Refractory Unit (Formerly Bharat Refractories Ltd.)	7.38	-10.88	20.67	11.41	9.76
	<b>Department of Agriculture &amp; Cooperation</b>					
10	State Farms Corporation of India Ltd.	9.77	21.53	29.87	38.96	
	<b>Ministry of Mines</b>					
11	Mineral Exploration Corporation Ltd.	1.24	14.46	11.95	17.32	
12	Hindustan Copper Ltd.	-10	155	224	323.44	
	<b>Ministry of Railways</b>					
13	Braithwaite and Co. Ltd.	1.5	1.75	6.18	6.89	
	<b>Department of Scientific &amp; Industrial Research</b>					
14	Central Electronics Ltd.	1.29	0.12	-17.25	-15.91	
	<b>Ministry of Housing &amp; Urban Poverty Alleviation</b>					
15	Hindustan Prefab Ltd.	7.75	2.47	4.61	2.47	
	<b>Ministry of Railways</b>					
16	Konkan Railway Corporation	-80	12	2	18.74	
	<b>M/o Coal</b>					
17	Bharat Coking Coal Ltd.	-1380.47	794.19	1093.69	822.36	1498.80
	<b>Ministry of Information &amp; Broadcasting</b>					
18	National Film Development Corporation Ltd.		-7.13	1.69	4.08	
	<b>M/o Water resources</b>					
19	<b>National Projects Construction Corporation Ltd.</b>	-28.70	31.29	72.74	42.18	50.97

## Chapter-13

# 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.

### 13.1 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:

a. (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\*

*\*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.*

b. Decisions on the recommendations of the Disinvestment Commission on the modalities of disinvestment, including restructuring.

c. Implementation of disinvestment decisions, including appointment of advisers, pricing of shares, and other terms and conditions of disinvestment.

d. Disinvestment Commission;

e. Central Public Sector Undertakings for purposes of disinvestment of Government equity only.

f. Financial Policy in regard to the utilization of the proceeds of disinvestment channelized into the National Investment Fund.

### 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 reforms triggered post-1990's economic crisis. In brief the policy on disinvestment can be divided into three phases, viz.,

- (i) 1991 to 1999: When the focus was on disinvestment of minority shareholding in favour of financial institutions.
- (ii) 1999-2000 to 2003-04: In the 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 the company.

### 13.4 Current Policy on Disinvestment

The current policy on disinvestment envisages to develop people's ownership of Central Public Sector Enterprises to share in their wealth and prosperity while ensuring that the Government equity does not fall below 51% and Government retains management control:-

Keeping in view the objective of disinvestment policy, the following approach to disinvestment has been adopted:

- (i) Already listed profitable CPSEs (not meeting 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.  
  
Each CPSE has different equity structure; financial strength; fund requirement; sector of operation etc., factors that do not permit a uniform pattern of disinvestment. Therefore, disinvestment is considered on merits and on a case-by-case basis.
- (iv) CPSEs have been permitted to use their surplus cash to buyback their shares as well as one CPSE may buy the shares of other CPSEs from the Government.

### 13.5 Current Policy on Loss Making CPSEs

The Board for Reconstruction of Public Sector Enterprises (BRPSE) has been mandated to examine loss-making/sick CPSEs for revival/restructuring for their turnaround and advise the Government on disinvestment/closure/sale in full or part, in respect of chronically loss-making/sick CPSEs that cannot be revived. As such if efforts to revive fail and the Government decides for privatization, then the Department of Disinvestment will take up such cases for strategic sale.

### 13.6 Advantages of Listing

There are inherent advantages in the listing of shares of profitable CPSEs on the stock exchanges as it triggers

multilayered oversight mechanism to enhance corporate governance as well as provides for level playing field to CPSEs vis-à-vis private companies in regard to accessing the resources through the capital market. The process enhances shareholder value in the listed CPSEs in the following ways:-

The listed companies are mandated by Company Law/SEBI/ Stock Exchanges to comply with higher level of disclosures. This will bring greater transparency and credibility;

- (a) With the induction of independent directors, management accountability, competencies and performance are enhanced.
- (b) Investor centric research provides on a regular basis a third party professional assessment of risks as well as future prospects to management to help it benchmark its business model with the industry.
- (c) 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
- (d) Expectations of investors (shareholders) will bring productive pressure upon the management to motivate it to perform efficiently to unlock the true value of the enterprise and also to strive to stand tall amongst the sector.

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 the Enterprise and Government's residual shareholding as well as that held by the public post-listing. Listing provides development of people-ownership of CPSEs, thus encourage participation and sharing the prosperity of CPSEs.

### 13.7 DISINVESTMENT FROM 2004-05 TILL MARCH' 2013

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 12<sup>th</sup> 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 2<sup>nd</sup> September, 2005 approved the proposal for disinvestment of 8% equity in Martuti 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 realised ₹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 21<sup>st</sup> 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 8<sup>th</sup> 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 8<sup>th</sup> 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 8<sup>th</sup> 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 30<sup>th</sup> 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 (SJVN): 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.

Oil & Natural Gas Corporation of India Limited (ONGC): Government disinvested 4.91% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism and realized an amount of ₹12,749.50 crore.

### 13.7.1 Disinvestment Completed during

#### 2012-13

National Building Construction Corporation Limited (NBCC): Government disinvested 10% paid-up equity capital of the Company out of Government's shareholding through initial public offering and realized an amount of ₹124.97 crore.

Hindustan Copper Limited: Government disinvested 5.58% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹807.02 crore;

NMDC Ltd.: Government disinvested 10% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹5973.21 crore;

Oil India Ltd.: Government disinvested 10% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹3141 crore;

NTPC Ltd.: Government disinvested 9.50% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹11456.78 crore;

Rashtriya Chemicals & Fertilizers Ltd.: Government disinvested 12.50% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹310.15 crore;

National Aluminium Company Ltd.: Government

disinvested 6.09% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹627.84 crore and

Steel Authority of India Ltd.: Government disinvested 5.82% paid-up equity capital of the Company by way of Offer for Sale of Shares by Promoters through Stock Exchange Mechanism (OFS) and realized an amount of ₹1514.50 crore.

The disinvestment target for the year has been indicated as ₹40,000 crore in the Budget 2013-14.

The summary of disinvestment receipts since 2001-02 till 2012-13 is at **Annexure-13.1**

### 13.8 National Investment Funds

The Cabinet Committee on Economic Affairs (CCEA) had approved the constitution of NIF on 27<sup>th</sup> January, 2005. Further, the Cabinet in its meeting held on 3<sup>rd</sup> November 2005 had approved the operationalisation of NIF. According to the structure of NIF, the proceeds from disinvestment of Central Public Sector Enterprises were to be channelized into the NIF. NIF was to be maintained outside the Consolidated Fund of India. The income of the Fund was to be used for certain purpose.

CCEA in its meeting held on 17/01/2013 and 21<sup>st</sup> February, 2013, have approved the restructuring of NIF, whereby disinvestment proceeds will be credited to the NIF and be available in full for recapitalization needs of CPSEs/ Public Sector Banks and Insurance Companies, for equity infusion in various Metro Projects, and for investment in Indian Railways towards capital expenditure.

SUMMARY OF RECEIPTS FROM DISINVESTMENT : 2001-02 TO 2012-13								
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 companies / CPSEs (₹ crore)	Total receipts (₹ crore)	Transactions
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.
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.

Annexure 13.1

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	13,894.05					13,894.05	₹1144.55 PFC; ₹12749.50 ONGC.
2012-13	30,000	23,956.06					23,956.06	₹124.97 NBCC, ₹807.03 HCL, ₹5973.27 NMDC, ₹3141 OIL. ₹11,456.78 NTPC; ₹310.15 RCF; ₹627.84 NALCO; ₹1514.50 SAIL
<b>G.Total</b>		<b>100,803.37</b>	<b>-</b>	<b>5,684.87</b>	<b>3,729.75</b>	<b>6,398.27</b>	<b>116,616.26</b>	

## 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 (6) 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 31<sup>st</sup> March 2013). As many as eight (8) 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)

Life Insurance Corporation of India (LIC) was established in the year 1956 as a Statutory Corporation under Section 3 of the Life Insurance Corporation Act, 1956 to carry out life insurance business in India. The objective of establishing the Corporation was 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 with adequate financial cover at a reasonable cost.

LIC has 8 Zonal Offices, 113 Divisional Offices, 2048 Branch Offices and 1275 Satellite offices throughout the length and breadth of the country. The staff strength of LIC is 1.17 lakh and it had an agency force of 11.73 lakh as on

31.03.2013.

LIC offers a wide range of products to fulfill the needs of different segments of the society. As at the end of the year 2012-13, LIC had 53 Individual Products and 10 Group Products for sale.

One of the main objectives of LIC is to reach all insurable persons in the country and to provide them with adequate financial cover. During the year 2012-13, LIC completed 367.55 lakh policies out of which 298.97 lakh policies for Sum Assured of ₹4,52,522.06 crore were under first insurance category. The ratio of first insurance to the total business completed for the year comes to 81.34% and 87.93% in respect of number of policies and Sum Assured respectively.

Life Insurance Corporation of India operates in 13 countries abroad through its Branch Offices and Joint Venture Companies. LIC has Branch Offices in Fiji, Mauritius & UK. It operates in Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, U.A.E., Kenya, Nepal & Sri Lanka through its Joint Venture Companies. LIC also has established its Wholly Owned Subsidiary in Singapore in the year 2012-13.

The Life Fund as at 31.03.2013 stood at ₹14,33,103.14 crore. The Corporation made payments of ₹9,447.71 crore under Death Claim cases, ₹64,630.13 crore under Maturity Claims and ₹6,308.26 crore under annuities.

In addition to above, performance in other significant parameters in the Financial Year 2012-13 are given below:-

**Table 14.1**  
**Performance of LIC during the year 2012-13**

Sl. No.	Parameters	Performance
1	Individual Policies Sold (Nos. in crore)	3.67
2	Market Share in terms of number of Policy	83.24%
3	Total Premium Income (₹ in crore)	208589.72
4	Total Income (₹ in crore)	326341.87
5	Total No. of Death Claims settled(in Lacs)	9.78
6	Total No. of Maturity Claims settled(in Lacs)	173.85

### 14.1.1 AamAdmiBimaYojana

The AamAdmiBimaYojana(AABY) has come into effect from 01.01.2013, as per Ministry of Finance letter F.No.I-3011/6/2009 by merger of erstwhile JanashreeBimaYojana (JBY) and AamAdmiBimaYojana(AABY).The premium for the scheme is ` 200/- per member per annum, 50% of which is contributed by the member and/or State Government and /or Nodal Agency and remaining 50% is drawn as subsidy from the Social Security Fund constituted by Government of India

and maintained by LIC of India. In case of Rural Landless Houselholders (RLH) which is occupation no.47 out of the 48 occupations presently covered under AABY, the entire premium is borne in the ratio of 50:50 by State Government and LIC maintained Social Security Fund. This kind of 100% financing is also there in Rajasthan's PannaDhayi scheme, in Uttarakhand's and MP's AABY scheme. Persons between age 18 years and 59 years and those who are members of the identified 48 occupational groups are eligible to be covered under this scheme.

**Table 14.2**

#### **Benefits under AamAdmiBimaYojana:**

Sl No.		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/-

Scholarship as a free add-on benefit is also provided to a maximum of two children of the beneficiary studying between 9<sup>th</sup> to 12<sup>th</sup> standards (including ITI courses) at the rate of ` 100/- per month for each child payable half yearly

on 1st July and 1st January each year. During the financial year 2012-2013 scholarships were disbursed to 28, 26,407 children amounting to ₹264.87 crore.

**Table 14.3**

#### **LIVES COVERED & CLAIMS SETTLED IN AABY ARE AS FOLLOWS:**

Year	Lives Covered	No. of Claims settled	Amount of Claims settled (₹ In Crore)
2007-2008	42,61,156	-	-
2008-2009	71,71,556	20,680	64.79
2009-2010	1,30,45,666	38,493	125.52
2010-2011	1,77,47,480	40,780	131.53
2011-2012	2,02,58,390	61,056	197.85
2012-2013	4,29,00,000	1,39,776	430.84

### 14.2 Non-Life Insurance Companies

The General insurance industry was nationalized in 1972 and 107 insurers were amalgamated and grouped into four Companies – National Insurance Co. Ltd., The New India Assurance Co. Ltd., The Oriental Insurance Co. Ltd. and United India Insurance Co. Ltd. The four entities were set up as subsidiaries of General Insurance Corporation of India (GIC) which also played the role of Re-insurer. As a part of liberalization process, with the enactment of IRDA Act, 1999, it became necessary to nominate Indian Re-Insurer under Insurance Act, 1938. GIC was, therefore, notified as

Indian Re-Insurer on 3<sup>rd</sup> November, 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.

The detailed particulars of the four Public Sector General Insurance Companies are as follows:-

#### 14.2.1 National Insurance Company Limited:

- Incorporated in 1906
- Headquarters in Kolkata
- 21 Foreign & 11 Indian companies amalgamated at the time of nationalization in 1972
- Paid-up share capital is ₹100 Crores
- Gross Direct Premium Income (GDPI) in 2012-13 was ₹9194.62 Crores against GDPI of ₹ ₹7815 69 Crores in 2011-12 showing a growth of 17.64% against a growth of 25.15% in the previous year
- Incurred claim Ratio is 85.57% for the year against 87.50% in 2011-12
- Profit After Tax was ₹ 695.70 Crores in 2012-13 against ₹324.76 Crores in 2011-12
- 1,477 offices including Micro offices
- 15,396 employees
- Dividend propose for 2012-13 is ₹139.14%
- Foreign operations in Nepal
- “AAA/STABLE” rating by CRISIL

#### 14.2.2 The New India Assurance Company Limited:

- Incorporated in 1919
- Headquarters at Mumbai
- 32 Foreign & Indian companies amalgamated at the time of nationalization in 1972
- Paid-up share capital is ₹200 Crores
- Gross Direct Premium Income (GDPI) in 2012-13 is ₹ 11873.49 Crores against GDPI of ₹ 10,074 Crores in 2011-12 showing a growth of % against a growth of 22.47% in the previous year.
- Incurred claim Ratio is 86.16% for the year 2012-13 against 90% in 2011-12.
- Profit After Tax is ₹843.66 Crores in 2012-13 against ₹179.31 Crores in 2011-12
- 1,594 offices
- 18,935 employees
- The Company operates through a network of 19 Branches, 7 Agencies, 3 Subsidiary Companies in 22 countries
- “A-”(excellent) rating from AM Best & Co.(Europe)

#### 14.2.3 The Oriental Insurance Company Limited:

- Incorporated in 1947
- Headquarters at New Delhi
- 10 Indian & 12 Foreign companies merged at the time of nationalization in 1972
- Paid-up share capital is ₹150 Crores
- Gross Direct Premium Income (GDPI) in 2012-13 was ₹6737 Crores against GDPI of ₹6195 Crores in 2011-12 showing a growth of 8.77% against a growth of 11.22%

in the previous year

- Incurred claim Ratio is 79% for the year 2012-13 against 85% in 2011-12
- Profit After Tax was ₹534 Crores in 2012-13 against ₹ 253 Crores in 2011-12
- 1526 offices
- 14742 employees
- 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
- Headquarters at Chennai
- 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 2012-13 was ₹9,266.04 Crores against GDPI of ₹8,179.29 Crores in 2011-12 showing a growth of 13.29% against a growth of 28.27% in the previous year
- Incurred claim Ratio is 81.92% for the year 2012-13 against 79.46% in 2011-12 Profit After Tax was ₹ 527.33 Crores in 2012-13 against 386.79 Crores in 2011-12.
- Dividend for the year 2012-13 is ₹124 Crores against ₹78 Crores in 2011-12
- 1,593 offices
- 16,637 employees
- Rated iAAA by ICRA
- Gopal Raksha Scheme

The above 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.

Amidst the challenging economic environment, Indian General Insurance Sector has displayed tremendous resilience by growing at 18.8% during the fiscal 2012-13. As per data published by Insurance Regulatory and Development Authority (IRDA) during the year 2012-13 General Insurance Gross Direct Premium Income stood at ₹ 69080.71 Crs in comparison to ₹ 58119.71 Crs as at 31<sup>st</sup> March 2012. Continuing the same trend, during the current fiscal 2013-14 (up to August’13) the non-life business grew at 16.12%.

The Public Crores during 2011-12. The market share of the Public Sector General Insurance Companies stood approximately at 57.07% in 2012-13 as against 58.74% in 2011-12.

Motor and Health Insurance have been the major drivers of growth in General Insurance Industry. 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.

Under Financial Inclusion initiative the Public Sector General Insurance Companies (PSGIC), with a view to increase growth and spread, have started expansion of their network of offices in unrepresented areas of the country and targeted engagement of Banking Correspondents (BC) and Banking Correspondent Associates (BCA) as their agents in this endeavor.

Some of the covers specially designed for the benefit of rural and social sector are:-

- Insurance of fishermen
- Plantation Insurance
- Calf rearing Insurance Scheme
- Insurance of Drip Irrigation – Multi periled lift Insurance Policy
- Emu bird Insurance
- Elephant Insurance
- Farmers Package Insurance
- GannaKamgarBimaYojana

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 GraminSuraksha 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.

### **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 3<sup>rd</sup> 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 of the Corporation in Mumbai and liaison 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 all the general insurance companies (non-life) in India. Internationally, GIC Re leads the reinsurance programmers 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. It also holds 35% share in Agriculture Insurance Company of India Ltd.

GIC Re is expanding its global presence. During 2012-13, 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 has 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 the Indian Motor Third Party Declined Risk Insurance Pool. GIC Re has been selected as the Manager for Nat Cat Pool promoted by the Federation of Afro-Asian Insurers & Reinsurers (FAIR). GIC Re is financially strong as reflected by its high grade ratings from credit rating agencies. It is rated A- (Excellent) by A M Best & AAA (In) by CARE. GIC Re is also the 5<sup>th</sup> largest aviation reinsurer globally. During the year 2012-13, the net premium of the GIC Re was ₹13771.23 crores as against ₹12558.24 crore in the previous year. The net incurred claims were at ₹10942.34 crores i.e., 82.10 % as against ₹13986.41 crores in the previous year i.e., 123.6%. GIC Re's Profit after tax amounted to ₹2344.62 crores as on 31st March 2013 compared to Loss after tax of ₹2468.74 crores as on 31st March 2012. The total assets and networth as on 31st March 2012 was ₹59939.89 crores and ₹9661.60 crores, respectively. 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 registered under the Companies Act, 1956, 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 8.75% each). The paid up share capital of the Company is ₹ 200 crore against an authorized share capital of ₹ 1500 crore. It has been set up with the objective to implement various Crop Insurance Schemes of Government of India likely to be introduced from time to time and other insurance products relating to agriculture. The company has commenced its business with effect from 01.04.2003 with transfer of Crop Insurance Business from General Insurance Corporation of India.

The primary product i.e. “National Agricultural Insurance Scheme: (NAIS) introduced by Ministry of Agriculture is being implemented from Rabi 1999-2000 season and is presently available in 24 States and 2 Union Territories. AICIL is the sole implementing agency for NAIS. All categories of farmers can participate in the Scheme. The main objective of the scheme is to protect the farmers against the losses suffered due to crop failure on account of natural calamities.

At present 70 different Food and Oilseed crops are covered during Kharif and Rabi seasons. Among the annual commercial/ horticultural crops, cotton, sugarcane, potato, chilly, ginger, turmeric, onion, garlic, jute, tapioca, banana, pineapple, brinjal, coriander, cumin, fennel, French bean, isabgul, fenugreek and tomato have been brought under insurance coverage. At present, 10% subsidy in premium is allowed for small and marginal farmers, shared equally by central and state government.

Claims are automatically calculated based on

shortfall in the current season yield obtained from crop cutting experiments conducted by State Governments under General Crops Estimation Survey.

During Kharif 2012 and Rabi 2012-13, 1.60 crore farmers were insured for sum insured of ₹ 39,479 crore against premium of ₹ 1,229 crore. Claims reported amounted to ₹4,325 crore. Since the inception of the scheme and until Rabi 2012-13, about 2,090 lakh farmers have been insured for a sum insured value of ₹ 2,96,014 crore against a premium of ₹ 8,809 crore. Claims to the tune of about ₹ 29,403 crore have been reported benefiting nearly 558 lakh farmers.

The government announced a pilot on an improved version of NAIS, namely Modified NAIS w.e.f. Rabi 2010-11 seasons for experimentation in 50 districts.

AICIL implemented MNAIS during Kharif 2012 in 29 districts across 12 States and during Rabi 2012-13 in 24 districts across 11 States. The pilot is being continued during Kharif 2013 season. The coverage under MNAIS during past 2 seasons is as under:

**Table 14.4**  
**AICIL's Coverage under Modified NAIS**

(₹ in 00,000)

Sl. No.	Particulars	Kharif 2012	Rabi 2012-13
1.	Farmers covered	1601728	781535
2.	Sum insured	435762	159917
3.	Farmers' Premium	19896	6667
4.	Claims	60935*	Yet to be reported

\*Provisional

Apart from the above two yield guarantee insurance products, the Government of India has introduced another Pilot namely, Pilot Weather Based Crop Insurance Scheme (WBCIS) with

effect from 2007. The coverage under WBCIS during past 2 seasons is as under:

**Table 14.5**  
**AICIL's Coverage under Weather Based CIS**

(₹ in 00,000)

Sl. No.	Particulars	Kharif 2012	Rabi 2012-13
1.	Farmers	3547486	3706632
2.	Sum insured	724024	646510
3.	Farmers' Premium	24563	17382
4.	Claims	54420*	80521*

\*Provisional

During the financial year 2012-13, the Company has recorded a gross premium of ₹ 3297 crore and a net premium of ₹ 1595

crore, as against net claims incurred of ₹ 1444 crore.

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