



**Government of India**

**MINISTRY OF HEAVY INDUSTRIES &  
PUBLIC ENTERPRISES**

**OUTCOME BUDGET 2016-17**







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# CHAPTER - I

## INTRODUCTION

### 1.1 DEPARTMENT OF HEAVY INDUSTRY

**1.1.1** The Ministry of Heavy Industries and Public Enterprises, comprising the Department of Heavy Industry (DHI) and the Department of Public Enterprises (DPE), was created as per the Presidential Notification dated the 15<sup>th</sup> October 1999. DHI administers 31 operating Central Public Sector Enterprises (CPSEs), including 12 subsidiary companies and 1 JV company i.e. NTPC-BHEL Power Projects Pvt. Ltd. (NBBPL). The Department also administers the following autonomous organizations;

- (a) NATRIP Implementation Society (NATIS), set up in July 2005, for guiding the implementation of the National Automotive Testing and R&D Infrastructure Project (NATRIP),
- (b) Fluid Control Research Institute (FCRI), Palakkad, Kerala which caters to the needs of the flow industry for calibration,
- (c) Automotive Research Association of India (ARAI), Pune, Maharashtra and
- (d) National Automotive Board (NAB).

**DHI has also been allocated the following subjects/Industrial Sectors.**

- (a) Heavy engineering equipment and Machine Tools Industry.
- (b) Heavy electrical engineering industries.
- (c) Automotive industries, including tractors and earth moving equipment.

The 31 CPSEs can be categorized into 3 major groups namely, Engineering Units, Non- Engineering Units and Consultancy/ Contracting Units. The list of the CPSEs is given at **Annexure I**.

**1.1.2 ORGANISATION** DHI is headed by a Secretary to the Government of India. He is assisted by a team of officers which includes an Additional Secretary and Financial Adviser, 3 Joint Secretaries, 1 Chief Controller of Accounts, 1 Economic Adviser, 2 Industrial Advisers, Directors/ Deputy Secretaries and other staff.

### 1.1.3 OBJECTIVES

**The main objectives of DHI are:-**

- (a) Optimum utilization of installed capacity of CPSEs under the Department;
- (b) Management Development to ensure professional management and operations in the CPSEs.
- (c) Promotion of profitability, efficiency and productivity through restructuring, modernization, technology up-gradation and optimal deployment of human and material resources in the CPSEs;
- (d) Closer co-ordination and interaction between the manufacturing and the user sectors;
- (e) Development and growth of Sectors looked after by the Department;
- (f) Implementation of a national project in Auto sector for creating state-of-the-art facilities for testing etc.

Sl. No.	Name of CPSEs
<b>(i) ENGINEERING ENTERPRISES</b>	
1.	Andrew Yule & Co. Ltd. (AYCL)
2.	Bharat Heavy Electricals Ltd. (BHEL)
3.	BHEL Electrical Machines Ltd. (Subsidiary of BHEL)
4.	Bharat Pumps and Compressors Ltd. (BPCL)
5.	Heavy Engineering Corporation Ltd. (HEC)
6.	HMT Ltd. (Holding Company with Tractor Division)
7.	HMT (Bearings) Limited (subsidiary of HMT)
8.	HMT Watches (subsidiary of HMT)
9.	HMT Chinar Watches (subsidiary of HMT)
10.	HMT Machine Tools (subsidiary of HMT)
11.	Hindustan Cables Ltd. (HCL)
12.	Instrumentation Ltd., Kota (ILK)
13.	Rajasthan Electronics & Instruments Ltd. (subsidiary of ILK)
14.	Richardson & Cruddas (1972) Ltd. (R&C)
15.	Scooters India Ltd. (SIL)
16.	Triveni Structurals Ltd. (TSL)
17.	Tungabhadra Steel Products Ltd. (TSPL)

<b>Sl. No.</b>	<b>Name of CPSEs</b>
<b>(ii) NON-ENGINEERING ENTERPRISES</b>	
18	Cement Corporation of India Ltd. (CCI)
19	Hindustan Paper Corporation Ltd. (HPC)
20	Hindustan Newsprint Limited (subsidiary of HPC)
21	Hindustan Salts Ltd. (HSL)
22	Hindustan Photo Films Manufacturing Co. Ltd. (HPF)
23	Nagaland Pulp & Paper Co. Ltd. (NPPC) (Subsidiary of HPC)
24	Nepa Limited (NEPA)
25	Sambhar Salts Ltd. (SSL) (subsidiary of HSL)
26	Tyre Corporation of India ltd. (TCIL)
<b>(iii) CONSULTANCY/ SERVICE ENTERPRISES</b>	
27	Braithwaite Burn & Jessop (BBJ) Construction Co. Ltd.
28	Bridge & Roof Company (India) Ltd.
29	Engineering Projects (India) Ltd. (EPI)
30	HMT (International) Limited (subsidiary of HMT)
31	Hooghly Printing Company Limited (subsidiary of AYCL)

## **1.2 DEPARTMENT OF PUBLIC ENTERPRISES**

- 1.2.1.** In their 52<sup>nd</sup> Report, the Estimates Committee of 3<sup>rd</sup> Lok Sabha (1962-67) stressed the need for setting up a centralized coordinating unit, which could also make continuous appraisal of the performance of public enterprises. This led to the setting up of the Bureau of Public Enterprises (BPE) in 1965 in the Ministry of Finance. Subsequently, as a result of the reorganization of the Ministries/Departments of the Union Government in September, 1985, BPE was made part of the Ministry of Industry. In May, 1990, BPE was made a full-fledged Department known as the Department of Public Enterprises (DPE). Presently, it is part of the Ministry of Heavy Industries & Public Enterprises.
- 1.2.2.** The Department of Public Enterprises is the nodal department for all the Central Public Sector Enterprises (CPSEs) and formulates policy pertaining to CPSEs. It lays down, in particular, policy guidelines on performance improvement and evaluation, autonomy and financial delegation and personnel management in CPSEs. It furthermore collects and maintains information in the form of a Public Enterprises Survey on several areas in respect of CPSEs.
- 1.2.3.** In fulfilling its role, the Department Coordinates with other Ministries, CPSEs and concerned organisations. As per the Allocation of Business Rules of the Government, the following subjects have been allocated to the DPE:
- Residual work relating to erstwhile Bureau of Public Enterprises including Industrial Management Pool.
  - Coordination of matters of general policy affecting all Public Sector Enterprises.
  - Evaluation and monitoring the performance of Public Sector Enterprises, including the Memorandum of Understanding mechanism.
  - Matters relating to Permanent Machinery of Arbitration for the Public Sector Enterprises.
  - Counselling, training and rehabilitation of employees in Central Public Sector Undertakings under Voluntary Retirement Scheme.
  - Review of capital projects and expenditure in Central Public Sector Enterprises.
  - Measures aimed at improving performance of Central Public Sector Enterprises and other capacity building initiatives of Public Sector Enterprises.
  - Rendering advice relating to revival, restructuring or closure of Public Sector Enterprises including the mechanisms therefor.
  - Matters relating to Standing Conference of Public Enterprises.



- Matters relating to International Center for Public Enterprises.
- Categorization of Central Public Sector Enterprises including conferring 'Ratna' status.
- Survey of Public Enterprises.

**1.2.4.** Department of Public Enterprises is headed by Secretary to the Government of India who is assisted by an establishment with an overall sanctioned strength of 122 officers/personnel.

**1.2.5.** The Department of Public Enterprises is implementing two Plan Schemes viz. (i) Scheme of Counselling, Retraining and Redeployment (CRR) for the separated employees of CPSEs and (ii) Scheme of Research, Development and Consultancies on Generic issues related to Public Sector Enterprises.

**I. Counselling, Retraining & Redeployment (CRR) Scheme for Separated Employees of CPSEs.**

**1.2.6.** DPE is implementing a Counselling, Retraining & Redeployment (CRR) Scheme to provide opportunities of self / wage employment to the employees or dependents of Central Public Sector Enterprises (CPSEs) separated under Voluntary Retirement Scheme (VRS) / Voluntary Separation Scheme (VSS) or retrenched due to closure / restructuring of the enterprise. The Scheme aims at providing short duration skill development/entrepreneurship development training programmes to equip the beneficiaries for self/wage employment. CRR Scheme is being implemented since the year 2001-02.

**II. Scheme of Research, Development and Consultancies on Generic issues related to Public Sector Enterprises.**

**1.2.7.** The Scheme of Research, Development & Consultancies (RDC) on Generic issues of Public Sector Enterprises (PSEs) was introduced in the year 2007-08 and is being implemented since 2008-09. In view of instructions issued by the Ministry of Finance, with regard to rationalization of Schemes, Scheme for Skill Development / Training programme to executives/employees of State Level Public Enterprises (SLPEs) has been merged with the Scheme of Research, Development & Consultancies (RDC) on Generic issues of Public Sector Enterprises (PSEs) during the year 2016-17. The objectives of Scheme of Research, Development & Consultancies (RDC) are to (i) undertake thematic studies on the generic issues of public sector enterprises; (ii) conduct seminars and workshops on the generic issues to adopt collaborative and cooperative learning for experience sharing (iii) conduct training programmes for capacity building and skill development (iv) constant improvement in performance evaluation and management processes of Central Public Sector Enterprises (CPSEs); (v) incentivize best practices in focus areas through grant of awards/incentives to CPSEs and SLPEs; and (vi) to deal with any other pertinent issue related to Department of Public Enterprises (DPE).

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## CHAPTER-II

# STATEMENT OF BUDGET ESTIMATES & OVERALL PERFORMANCE OF SCHEMES & PUBLIC SECTOR ENTERPRISES (PSEs)

- 2.1** The Department of Heavy Industry is concerned with the development of the Engineering Industry viz. Heavy Engineering & Machine Tools, Heavy Electrical Engineering Industry and Automotive Industry besides 31 operating Central Public Sector Enterprises (CPSEs), four Autonomous Bodies in Auto and Instrumentation Sectors viz. Automotive Research Association of India (ARAI), Fluid Control Research Institute (FCRI), National Automotive Testing and Research & Development Infrastructure Project (NATRiP) and National Automotive Board (NAB). The Enterprises under the Department produce wide range of projects ranging from machine tools, industrial machinery, boilers, gas/steam/hydro turbines, turbo generators, electrical equipment, and railway traction equipment, pressure vessels, AC locomotives, prime movers, agricultural tractors and consumer products such as watches, cement, paper, tyres and salts etc. The industries provide goods and services for almost all sectors of the economy including power, rail and road transport. The Ministry also looks after the Machine Building Industry and caters to the requirements of equipment's for basic industries such as steel, non-ferrous metals, fertilizers, refineries, petrochemicals, shipping, paper, cement, sugar etc. The Department supports the development of a wide range of intermediate engineering products like castings, forgings, diesel engines, industrial gears and gear boxes.
- 2.2** The performance of the CPSEs of the Department is reviewed periodically at different levels against MoU targets, in order to take timely remedial measures to overcome the constraints. Various short-term and long-term measures are identified and action taken to improve the performance of CPSEs through restructuring including manpower rationalization wherever considered necessary, filling up of top level vacancies, close monitoring of major projects etc. As per the overall Public Sector policy of the Government, the profit making CPSEs are being strengthened by providing greater autonomy and the loss making CPSEs which have potential to turn around are revived and those found chronically sick are disinvested or closed down.
- 2.3.** The Details of Production, performance and Profit/Loss of CPSEs under Department of Heavy Industry is at in Table-I & II respectively.

Table - I

**PRODUCTION PERFORMANCE OF CPSEs UNDER DEPARTMENT OF HEAVY INDUSTRY**

(Rs. in crore)

Sl. No.	Name of CPSE	2012-13 (Actual)	2013-14 (Actual)	2014-15 (Actual)	2015-16 (Upto Dec 2015)	2016-17 (Target)
1	2	3	4	5	6	7
1	AYCL	289.03	326.06	351.04	270.83	420.00
2	Hooghly Printing	9.50	15.91	16.19	10.61	26.50
3	BHEL	50156.00	40338.00	30947.00	16236.00	33000.00
4	*BBUNL	16.15	10.10			
5	BHEL-EML	26.53	37.02	21.87	23.75	70.00
6	*BBJ	302.11	260.66	199.48	121.78	300.00
7	BPCL	152.74	150.13	77.54	50.34	225.00
8	R&C	71.19	62.70	71.19		80.00
9	TSL	0.93				
10	TSPL	0.55	0.61	0.37	0.00	2.00
11	B&R	1315.55	1378.77	1428.59	1091.32	1575.00
12	HCL	0.00	0.00		0.00	0.00
13	HEC	676.77	447.71	391.50	202.37	646.22
14	HMT (Holding Co.)	63.05	74.11	53.66	32.09	120.00
15	HMT (MT)	218.05	155.56	181.50	129.76	270.00
16	HMT (Watches)	14.03	4.70	2.69	0.84	5.00
17	HMT (Chinar Watches)	0.00	0.00	0.00	0.00	0.00
18	HMT (Bearings)	11.73	15.04	14.20	8.67	16.00

Sl. No.	Name of CPSE	2012-13 (Actual)	2013-14 (Actual)	2014-15 (Actual)	2015-16 (Upto Dec 2015)	2016-17 (Target)
1	2	3	4	5	6	7
19	HMT (International)	34.09	25.08	33.40	24.02	40.00
20	ILK	171.80	158.35	158.86	49.03	235.00
21	REIL	241.84	215.97	224.40	100.00	245.00
22	SIL	214.46	168.02	204.47	103.61	283.20
23	CCI	316.56	363.03	449.54	331.45	489.42
24	HPC	566.20	634.34	714.03	294.76	981.91
25	HNL	348.04	356.83	358.97	256.02	387.50
26	HPF	3.74	0.15	0.15	0.00	0.00
27	HSL	8.61	7.49	6.90	3.16	15.74
28	SSL	16.05	17.08	21.31	13.65	42.86
29	NEPA	131.54	124.93	84.34	62.20	116.00
30	TCIL					
31	EPI	840.61	855.16	1031.28	930.73	1800.00
32	NPPC	0.00	0.00		0.00	0.00
	<b>Total</b>	<b>56217.45</b>	<b>46203.51</b>	<b>37044.47</b>	<b>20346.99</b>	<b>41392.35</b>

**Note:**

- (i) Data of TCIL & TSL is not available as the Companies are under winding up/liquidation.
- (ii) HMT (Bearing), HMT (Machine Tool), HMT (Chinar Watches), TSPL and HCL have been approved by the Cabinet for closure.
- (iii) \*BBJ & BBUNL have been merged in July, 2015.

Table - II

## PROFIT (+) LOSS (-) (BEFORE TAX) OF CPSEs UNDER DEPARTMENT OF HEAVY INDUSTRY

(Rs. in Crore)

Sl.No.	Name of CPSE	2012-13 (Actual)	2013-14 (Actual)	2014-15 (Actual)	2015-16 (upto Dec 2015)	2016-17 (Target)
1	2		4	5	6	7
<b>(A) PROFIT MAKING CPSEs</b>						
1	AYCL	11.35	22.29	12.96	10.74	24.00
2	Hooghly Printing	0.11	0.15	0.10	-2.95	2.09
3	BHEL	9432.00	5014.00	2140.00	-813.00	219.00
4	B&R	56.03	16.96	17.89	7.97	30.00
5	*BBUNL	0.46	4.52	-	-	-
6	*BBJ	58.37	68.42	76.06	26.11	21.20
7	CCI	8.11	16.20	40.08	31.19	41.84
8	EPI	31.65	26.11	41.21	19.50	45.01
9	HMT(International)	6.85	0.50	1.66	1.12	2.76
10	SIL	-6.00	13.60	11.09	-0.22	8.16
11	REIL	39.29	19.88	20.96	2.25	9.50
<b>Sub-total for (A) Profit making CPSEs</b>		<b>9638.22</b>	<b>5202.63</b>	<b>2362.01</b>	<b>-717.29</b>	<b>403.56</b>
<b>(B) LOSS MAKING CPSEs</b>						
12	HMT (Holding Co.)	-145.38	87.21	-96.57	-73.80	-73.75
13	HEC	20.38	299.31	-241.69	-143.27	-138.43
14	TSPL	-31.15	-31.91	-28.87	-24.29	-32.20
15	BPCL	-26.76	-15.68	-47.76	-37.29	0.00
16	ILK	-54.09	-68.61	-141.54	-55.06	-35.16

(Rs. in Crore)

Sl.No.	Name of CPSE	2012-13 (Actual)	2013-14 (Actual)	2014-15 (Actual)	2015-16 (upto Dec 2015)	2016-17 (Target)
1	2		4	5	6	7
17	R&C	-29.49	-3.82	-3.64	-	-21.33
18	TSL	-75.87				
19	HCL	-885.05	-781.88	-932.99	-782.39	-1100.00
20	HPC	-151.87	-118.50	-1.28	-198.91	-53.47
21	HMT (Machine Tools)	-43.65	-52.66	-134.94	-99.17	15.94
22	HMT (Bearings)	-2.07	-15.98	-17.77	-15.24	-21.98
23	HMT (Watches))	-242.47	-233.08	-259.20	-202.79	0.05
24	HMT (Chinar Watches)	-51.16	-50.56	-49.05	-34.23	0.00
25	HPF	-1565.32	-1820.42	-2162.76	-1848.66	0.00
26	HNL	-18.09	-8.86	-7.81	-9.82	2.00
27	NEPA	-84.08	-84.08	-48.71	-47.41	-35.00
28	TCIL					
29	BHEL-EML	-55.00	-1.06	-3.96	-4.48	2.00
30	NPPC	-14.58	-14.73	-15.38	-10.95	-31.59
31	HSL	0.74	0.11	-4.95	-0.22	0.61
32	SSL	0.30	0.44	-9.83	-0.10	0.27
<b>Sub Total (B) Loss making Companies</b>		<b>-3454.66</b>	<b>-2914.76</b>	<b>-4208.70</b>	<b>-3588.08</b>	<b>-1522.04</b>
<b>GRAND Total (A&amp;B)</b>		<b>6183.56</b>	<b>2287.87</b>	<b>-1846.69</b>	<b>-4305.37</b>	<b>-1118.48</b>

- Note:** (i) Data of TCIL & TSL is not available as the Companies are under winding up/liquidation.  
(ii) HMT (Bearing), HMT (Machine Tool), HMT (Chinar Watches), TSPL and HCL have been approved by the Cabinet for closure.  
(iii) \*BBJ & BBUNL have been merged in July, 2015.

**DEPARTMENT OF HEAVY INDUSTRY (DHI)**

**Budgetary Allocation and Annual Plan 2016-17 for Department of Heavy Industry**

(Rs.in crore)

Sl. No.	Schemes /Items	Budgetary Allocation and Annual Plan (2016-17)						
		Gross Budgetary Support		I.R.	EBR	Others	Total	
		Non-Plan	Plan				Non-Plan	Plan
1	2	3	4	5	6	7	8	9
<b>1.</b>	<b>Development of Automobile Industry</b>							
1.1	National Automotive Testing and Research & Development Infrastructure Project (NATRIP) – an autonomous Body.	82.15	199.91	0.00	0.00	0.00	82.15	199.91
1.2	Schemes for Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles in India –FAME- India(erstwhile known as Schemes in Automotive Sector Testing Infrastructure and R&D Projects for Electric Vehicles).							
1.3	Payment to Development Council for Automobile & Allied Industries (DCAAI)							
1.4	Grant to Fluid Control and Research Institute (FCRI)			1.16	0.00	0.00	0.00	1.16
	<b>Total- Development of Automobile Industry</b>	<b>82.15</b>	<b>199.91</b>	<b>1.16</b>	<b>0.00</b>	<b>0.00</b>	<b>82.15</b>	<b>201.07</b>
<b>2.</b>	<b>Development of Capital Goods Sector</b>							
2.1	Scheme on Enhancement of Competitiveness in the India Capital Goods Sector	1.00	50.01	0.00	0.00	0.00	1.00	50.01
2.2	R&D Project- Development of Advanced Ultra Super-Critical (Adv.-USC) Technology for Thermal Power Plants							
2.3	Scheme of Grant-in-Aid to Industry associations and PSU for undertaking promotional activities							
	<b>Total- Development of Capital Goods Sector</b>	<b>1.00</b>	<b>50.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>50.01</b>

## Budgetary Allocation and Annual Plan 2016-17 for Department of Heavy Industry

(Rs.in crore)

Sl. No.	Schemes /Items	Budgetary Allocation and Annual Plan (2016-17)						
		Gross Budgetary Support		I.R.	EBR	Others	Total	
		Non-Plan	Plan				Non-Plan	Plan
1	2	3	4	5	6	7	8	9
<b>3.</b>	<b>Central Public Sector Enterprises</b>							
<b>3.1</b>	<b>Grant to CPSEs</b>							
3.1.1	Provision for Projects/Scheme to the benefits of NER (Grant in-aid to Cachar Paper Mill, a unit of Hindustan Paper Corporation)	0.00	30.01	0.00	0.00	0.00	0.00	30.01
3.1.2	Grant to Hindustan Salt Ltd.	2.00	0.00	0.00	0.00	0.00	2.00	0.00
	<b>Total- Grant to CPSEs</b>	<b>2.00</b>	<b>30.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.00</b>	<b>30.01</b>
<b>3.2</b>	<b>Investment in CPSEs</b>							
3.2.1	Provision for Projects/Scheme to the benefits of NER (HPC-Nagaland Pulp and Paper Corporation Ltd. (NPPC), a subsidiary of Hindustan Paper Corporation)	0.00	0.02	0.00	0.00	73.97	0.00	73.98
3.2.2	Scooter India Limited (SIL)	0.00	20.00	0.00	0.00	0.00	0.00	20.00
3.2.3	Token provisions each for NEPA, Heavy Engineering Corporation Limited (HEC), Jagdishpur Paper Limited (JPML) and Hindustan Salt Limited (HSL)	0.00	0.04	0.00	0.00	0.00	0.00	0.04
3.2.4	Andrew Yule & Co. Ltd. (AYCL)	0.00	0.00	11.00	0.00	50.00	0.00	61.00
3.2.5	Bharat Heavy Electrical Ltd. (BHEL)	0.00	0.00	350.00	0.00	0.00	0.00	350.00
3.2.6	Braithwaite Burn and Jessop Construction Co. Ltd. (BBJ)	0.00	0.00	4.00	0.00	0.00	0.00	4.00
3.2.7	Bridge & Roof Co. Ltd. (B&R)	0.00	0.00	20.00	0.00	0.00	0.00	20.00
3.2.8	Rajasthan Electronics & Instruments Ltd. (REIL)	0.00	0.00	6.00	0.00	0.00	0.00	6.00



## Budgetary Allocation and Annual Plan 2016-17 for Department of Heavy Industry

(Rs.in crore)

Sl. No.	Schemes /Items	Budgetary Allocation and Annual Plan (2016-17)						
		Gross Budgetary Support		I.R.	EBR	Others	Total	
		Non-Plan	Plan				Non-Plan	Plan
1	2	3	4	5	6	7	8	9
	<b>Investment in CPSEs</b>							
3.2.9	Engineering Projects India Ltd. (EPI)	0.00	0.00	18.50	0.00	0.00	0.00	18.50
3.2.10	Cement Corporation of India Ltd. (CCI)	0.00	0.00	55.63	0.00	0.00	0.00	55.63
	<b>Total- Investment in CPSEs</b>	<b>0.00</b>	<b>20.06</b>	<b>465.13</b>	<b>0.00</b>	<b>123.97</b>	<b>0.00</b>	<b>609.16</b>
<b>3.3</b>	<b>Loan to CPSEs</b>							
3.3.1	Heavy Engineering Corporation Limited (HEC)	0.00	0.01	0.00	0.00	0.00	0.00	0.01
3.3.2	Lumsum provision for implementation of Revival Scheme of Public Sector Undertakings	150.00	0.00	0.00	0.00	0.00	150.00	0.00
3.3.3	Lumsum provision for implementation of Voluntary Separation Scheme/ VRS and Payment of Statuary Dues	736.93	0.00	0.00	0.00	0.00	736.93	0.00
3.3.4	Token provisions for HMT, HCL, SIL, TSL, TSPL, ILK, HEC, NEPA, HPF, HPC, HSL and TCIL	0.12	0.00	0.00	0.00	0.00	0.12	0.00
	<b>Total- Loan to CPSEs</b>	<b>887.05</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>887.05</b>	<b>0.01</b>
	<b>Total-Central Public Sector Enterprises (3.1+3.2+3.3)</b>	<b>889.05</b>	<b>50.08</b>	<b>465.13</b>	<b>0.00</b>	<b>123.97</b>	<b>889.05</b>	<b>639.18</b>
<b>4.</b>	<b>Secretariat Economic Service</b>	<b>27.80</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>27.80</b>	<b>0.00</b>
	<b>Grand Total Outlay (1+2+3+4)</b>	<b>1000.00</b>	<b>300.00</b>	<b>466.29</b>	<b>0.00</b>	<b>123.97</b>	<b>1000.00</b>	<b>890.26</b>

**FINANCIAL OUTLAYS, PROJECTED PHYSICAL OUTPUT & OUTCOMES  
OF PLAN/NON-PLAN SCHEME/PROGRAMMES**

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
1.	<b>Development of Automobile Industry</b>	Under the Umbrella Scheme, namely, Development of Automobile Industry, there are four Plan/Non-Plan sub-schemes/programmes, contributing to the development of automobile industry. The details of these sub-schemes/programmes are as follows:	Plan: 199.91  Non Plan: 82.15	1.16	There are four sub-schemes/programmes under the Umbrella Scheme, namely, Development of Automobile Industry and necessary details have been given independently against each of the sub-schemes/programmes as follows:			
1.1	Research & Development in Automotive Industry- Implementation of National Automotive and R&D Infrastructure Project (NATRIP)	<p><b>i)</b> To setup world class infrastructure to test vehicles and components against existing and emerging standards mandated by the Govt. to significantly enhance vehicular safety, performance and ameliorated its impact on public health.</p> <p><b>ii)</b> Deepening of automotive manufacturing in India, promoting larger value addition and thereby significantly enhancing employment generation in this sector.</p>	Funds have been allocated collectively under the Umbrella Scheme.		<p><b>a)</b> Completion of civil &amp; utility works in EMC, fatigue, powertrain infortonocs, Photometry lab in GARC Chennai.</p> <p><b>b)</b> Installation, Commissioning &amp; Acceptance of Equipment and labs in GARC Chennai &amp; ICAT Manesar.</p> <p><b>c)</b> Awards of HST Track in Progress and other Work of relating to National Automotive Test Tracks at NATRAX, Indore.</p>			

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
		iii) India's emergence as a global outsourcing base for automobiles and auto components in furtherance of Auto Policy.			d) Completion of unfinished targets of 2015-16 Passive Safety, Powertrain, EMC and Fatigue labs and other facilities at ARAI, ICAT and GARC and NATRAX.			
1.2	Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India-FAME India (erst-while known as Schemes in Automotive Sector Testing Infrastructure and R&D Projects for Electric Vehicles).	The objective of the scheme (FAME) is to encourage faster adoption (market creation & related activities), domestic technology development (Research & Development) and manufacturing of full range of cleaner electric vehicles technologies that include mild hybrid, Full hybrid vehicles (HEVs), Plug in Hybrids Vehicles (BEVs) (collectively termed as HEVs), thereby leading to creation of a strong, Globally competitive, viable & self-sustaining electric vehicle industry and its eco system in India.	Funds have been allocated collectively under the Umbrella Scheme.		<p>i) To extend financial support for advance technology in the field of electric mobility.</p> <p>ii) To provide incentive about eighty thousand electric/hybrid 2w, 3w, 4w vehicles including commercial vehicles.</p> <p>iii) To Create about 500 public Charging Infrastructure in the country through Public Private Partnership.</p>	In order to decrease dependence on fossil fuel usage and to provide cleaner environment and provide clean energy automobiles	April 2016 to March 2017.	

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
					iv) To fund various pilot projects for public transportation by providing incentive to about 100 buses and 500, 4 Wheeler in the Govt. Sector.			
1.3	Grant in-aid to Fluid Control and Research Institute (FCRI)	Development of Fluid Control Systems, Fluid Control Elements Research, and Development of Human Resources and Training in the field of low engineering.	Funds have been allocated collectively under the Umbrella Scheme.		Setting up of Radiator Test Facility, Setting up of Reverberation, Setting up of Facility, Setting up of an Oil-Water (Two Phase) Calibration Facility, creation of Flow Measurement and Monitoring Facility at Site, Setting up of High Vacuum Calibration, Testing and R&D Facility, Inter Laboratory Comparison and Setting up of a	To evaluate thermal performance and effectiveness of radiators, to test components and sub-assemblies of auto ancillary units and auto manufactures for sound power measurement to help the Auto Industry both directly and indirectly through helping to develop products with	March 17, March, 18	Out of the CEBR of Rs. 1.10 crore, one project viz., 'Tow Facility for Calibration of Point Velocity Insertion Type Devices' costing Rs. 0.36 crore is proposed for abandonment as the revised costs make the project non-feasible w.r.t. expected revenues from testing/calibration at the facility.

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
					Tow Facility for Calibration of Point Velocity Insertion Type Devices.	better accuracy, better reliability and credibility, enable FCRI to undertake performance evaluation testing for various kinds of multiphase devices of manufacturing, R&D and end-user industries, to carryout instantaneous flow measurement on rivers, open channels, streams closed conduits etc. and continuous monitoring and data logging in a		

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
						distribution system, creating high vacuum range, maintaining and its measurement and for better credibility of FCRI.		
1.4	Grant to Development Council for Automobile & Allied Industries (DCAAI)	Assisting in the completion of National Electric Mobility Mission Plan (NEMMP) 2020 and for the new and ongoing Research & Development Project related to setting up facilities for Testing the Vehicles as per changing safety and emission standards at the Research Institute i.e. ARAI, Pune, VRDE, Ahmednagar & CIRT, Pune and other R&D Institutes in the Country. Apart from this, Department supports UNIDO-ACMA projects which aims to provide practical services to Small and Medium Enterprises (SMEs).	Funds have been allocated collectively under the Umbrella Scheme.		National Electric Mobility Mission Plan (NEMMP) 2020 provides clean mobility solutions to the people while reducing the country's dependence on fossil fuel. Apart from this, there would be Skill Development in Automotive Sector through various R&D projects. It would enhance the performance of domestic SMEs in the automotive component industry to facilitate their inclusion into national, regional and global supply chains requirements (quality, cost and delivery), to upgrade and enhance the competitiveness of an increasing number of target companies along the supply chain in India, including lower tier suppliers.			

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
2.	<b>Development of Capital Goods Sector</b>	Under the Umbrella Scheme, namely, Development of Capital Goods Sector, there are three Plan/ Non-Plan sub-schemes/ programmes, contributing to the development of capital goods sector. The details of these sub-schemes/ programmes are as follows:	Plan: 50.01 Non-Plan: 1.00					There are three sub-schemes/programmes under the Umbrella Scheme, namely, Development of Capital Goods Sector and necessary details have been given independently against each of the sub-schemes/programmes as follows:
2.1	Scheme on Enhancement of Competitiveness in the Indian Capital Goods Sector.	Development and growth of Indian Capital Goods Sector	Funds have been allocated collectively under the Umbrella Scheme.		Design & Development of the 1 <sup>st</sup> prototype of indigenous Rapier Loom (450 pm) by CMTI.  Setting up of Infrastructure for TAGMA Centre of Excellence and Training (TCET)  Setting up of Centre of Excellence at IIT Delhi for developing Machine Tool Technology	Development of High tech shuttle less loom.  CEFC for Tools, Moulds and Dies.  Development of Machine Tools  Technology Skill development in machine tool sector.	<b>1st quarter</b> Release of 1 <sup>st</sup> installment to: 1. Government of Karnataka for setting up of Machine Tools Park (MTP) by under IIFC component of the Scheme.  2. HMT Machine Tools Ltd. for (a) F o u r Guideway CNC lathe and (b) Turning	Approval of Project will depend on factors like acquisition of land & building by the Project Implementing Organizations, timely formation of Special Purpose Vehicle and availability of fund etc.  Release of fund will depend on promptness of pro rata contribution from the industry partners.

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
					<p>Setting up of Training and Skill Development Centre at HMT Machine Tools Limited.</p> <p>Setting up of Machine Tool Park in Tumkur, Karnataka.</p> <p>Acquisition of Technology for developing Machine Tools by HMT Machine Tools.</p> <p>Setting up High tech specialized training centre by HEC.</p> <p>Setting up CoE at PSG College of Technology.</p>	<p>Infrastructure facility to Machine Tool Industry. Import substitution.</p> <p>Development of specialized skill in Heavy Engineering and Metallurgy.</p> <p>Development of Welding Technology.</p>	<p>Mill Centre SBCNC 30 TMY under (TAFP) component of the Scheme.</p> <p>3. Heavy Engineering Corporation (HEC) for setting up high tech Training Centre under CEFC component of the Scheme.</p> <p>4.PSG College of Technology for development of welding technologies under CoE component of the Scheme.</p> <p>2nd quarter- Release of 2nd instalment to CMTI and</p>	



(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
							T A G M A Centre of Excellence and Training (TCET) T A G M A Centre of Excellence and Training (TCET) 3rd quarter Project Approval to IIT Delhi 4th Quarter Release of 1st installment to IIT- Delhi and Project approval to IIT- KGP, I I T - Bombay, T M M A (CEFC at Surat)	

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
2.2	R&D project for Development of Advanced Ultra Supercritical (AUSC) Technology for Thermal Power Plants on a Mission Mode.	The scheme is yet to be approved.	Funds have been allocated collectively under the Umbrella Scheme.					The scheme is yet to be approved.
2.3	Scheme of Grant-in-aid to Industry Associations and PSU for Undertaking Promotional Activities	Promotion of Industry/ Trade related activities in the Department.						It would promote the Industry/Trade related activities in the Department in the background of Make-in-India Movement.
3.	<b>Central Public Sector Enterprises</b>	Under this Umbrella Scheme, support to CPSEs has been given in the form of Grant-in-aid, investment and loan for their revival/ restructuring/ modernization or for their closure as per the decision of Govt.	Plan: 50.08 Non-Plan: 889.05	589.10				Support to CPSEs has been given in the form of either Grant-in-aid or investment or loan. It is either for their revival/restructuring/ modernization or for the payment of VRS in respect of CPSEs which have been approved for closure by the Govt. The necessary details have been given independently against each of the CPSE as follows:

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
3.1	Lumsum provision for projects/ schemes for the benefit of North Eastern Region and Sikkim (Grant-in-Aid to Cachar Paper Mill, a unit of HPC)	Grant –in-Aid to Cachar Paper Mill (CPM), a unit of Hindustan Paper Corporation Ltd.(HPC) for meeting its additional operational cost on account of transportation as CPM is located in infrastructural poor region. It is for the socio-economic development of the industrially backward region.	Funds have been allocated collectively under the Umbrella Scheme under Revenue Section.		Conversion of Meter gauge to Broad gauge inside the premises of Cachar Paper Mill & statutory compliance with pollution control within the means, with renewals & replacement.	Gauge conversion will help procurement outside NER easy, Environmental measures and Renewals & Replacement.		Without regular renewals & replacements, sustained competitiveness and growth cannot be achieved. Imbroglio over coal issue is also a challenge.
3.2	Grant to Hindustan Salts Limited (HSL)	Payment to Pensioners of Ex-Salt Department employees of HSL.			<b>It would discharge the liability of Pensioners of the Ex-Salt Department employees of HSL.</b>	-----	-----	-----
3.3	Investment in Scooter India Ltd.(SIL)	Revival of SIL as per Cabinet decision dated 19.12.2012 by infusing funds as equity for Capital Expenditure.	Plan: 20.00		Expected Production of 12500 Nos. of 3 wheelers	Expected Production of 12500 Nos. of 3 wheelers	2016-17	Ageing workforce & Retirements
3.4	Investment in NPPC, HEC, HSL, JPML & NEPA	Token Provisions	Plan: 0.07		Only token provision has been kept for CPSEs, namely, NPPC, HEC, HSL, JPML & NEPA.			

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
3.5	Scheme for the implementation of VRS/VSS and Statutory Dues and Scheme for the Revival/ Restructuring of CPSEs(Lump sum provision)	Government of India has released more than Rs.3000 crore approximately till date for liquidation of statutory dues and Salary/ Wages in respect of Central Public Sector Enterprises(CPSEs) under the Department of Heavy Industry (DHI). Moreover, the assets of the most of these CPSEs remain idle and employees.	Non-Plan: 887.05		1. Government would save precious finances presently required to meet salary etc. requirements of idle workers in CPSEs under Department of Heavy Industry. Funds saved on a recurring basis can be productively deployed elsewhere for development and public welfare purposes besides enabling more gainful utilization of manpower.	1. Action for VRS/ VSS/ re-trenchment would be completed in 2016.17 including closure. 2. Within two years from date of closure.	HMT (Bearings) Limited, HMT (Watches) Limited and HMT (Chinar Watches) Limited was considered and approved by CCEA in its meeting dated 06.01.2016. Further, the note for CCEA regarding closure of Tungabhadra Steel Products Limited.	

(Rs. in crore)

Sl. No.	Name of Scheme/ Programme	Objective/Outcome	Outlay 2016-17		Quantifiable Deliverables	Projected Outcomes	Processes/ Timelines	Remarks/Risk Factors
			Plan/Non-Plan	CEBR				
		Workmen are also not able to get alternative employment. The proposal would enable gainful utilization of the manpower and physical assets.			2. Movable assets like Plant and Machinery, furniture and fixture, vehicles etc. would be either auctioned or transferred to holding/ subsidiary/ associate CPSEs or Government/ Government controlled Body. Immovable assets i.e. land and/ or buildings would be transferred to Central/ State Government or Central/ State Government entities/ PSUs only depending on the terms of lease/ ownership in each case enabling more gainful use of physical assets.			(TSPL) was considered and approved by CCEA in its meeting dated 22.12.2015. Necessary action as per the implementation schedule of approved proposal is being taken. In respect of one CPSE, namely Hindustan Cable Limited (HCL), the draft CCEA note is under inter-ministerial consultation.
4.	Secretariat-Economic Service	For meeting Secretariat expenditure of the Department.	Non-Plan: 27.80		Secretariat expenditure of the Department including Salary, Establishment, Travel Expenses, Medical expenses etc. would be met.			

## FINANCIAL OUTLAYS, PROJECTED OUTPUTS & OUTCOMES OF CPSEs

### 1. ANDREW YULE & COMPANY LIMITED (AYCL)

(Rs. in crore)

Sl. No.	Names of the Scheme/ Programmes	Objective/ Outcome	Outlay 2016-17			Quantifiable/ Deliverable/ Physical Outputs	Projected Outcomes	Processes/Time lines	Remarks/ Risk Factors
			4						
1	2	3	4(i) Non-Plan	4(ii) Plan	4(iii) CEBR	5	6	7	8
1	Plantation and up-gradation facilities of both West Bengal Tea Gardens and Assam Tea Gardens under N/E Region and Sikkim Scheme.	To improve yield, production and quality.	Nil	Nil	6.00	The production and sales would go up during the year 2016-17 i.e. sales and production of Rs.423.00 Crore and PBT Rs.6.00 Crore.		To be executed within 1 year from the sanction date of the CAPEX by the Board of Directors	Without the sustainability of the Company will be severally affected.
2	Up-gradation of facilities at Engg. And Elect. Divisions.	To improve Productivity	Nil	Nil	5.00			To be executed within 1 year from the sanction date of the CAPEX by the Board of Directors	
3	Expansion of Transformer manufacturing at higher rating	Up gradation of existing business	Nil	Nil	50.00			Within 2017-18 after getting bridge loan against sales of land in Chennai.	
	<b>TOTAL</b>				<b>61.00</b>				

2. BHARAT HEAVY ELECTRICAL LIMITED (BHEL)

(Rs. in crore)

Sl. No.	Names of the Scheme/ Programmes	Objective/ Outcome	Outlay 2016-17			Quantifiable/ Deliverable/ Physical Outputs	Projected Outcomes	Processes/ Time lines	Remarks/ Risk Factors
			4						
			4(i) Non-Plan	4(ii) Plan	4(iii) CEBR				
A	BHEL Manufacturing Units /Divisions/Regions								
1.	Modernization and Rationalization Equipment (M&R) including Quality	Modernization related items	-	-	73	Replacement of old facilities and addition of improved facilities	Modernization related items	Continuous	
2.	Township & Welfare	Township & Welfare items	-	-	20	Provision of medical items, provision of boundary wall for safeguarding of company's land	Township & Welfare items	Continuous	
3.	Customer Project Related Capital Investment	Capability enhancement & Infrastructure for sites	-	-	94	Capability enhancement & Infrastructure for sites	Capability enhancement & Infrastructure for sites	Continuous	
4.	Other schemes	Capacity cum Capability enhancement	-	-	14	Miscellaneous payment towards commissioning of facilities	Capacity cum Capability enhancement	March-17	
	<b>Sub Total(A)</b>		-	-	<b>201</b>				
B	<b>Investment in Joint Ventures</b>								
1	NTPC-BHEL power projects Ltd.	Equity Investment	-	-	37	No Physical output			
2	Raichur Power Corp. Ltd. Yeramarus	Equity Investment			112	No Physical output			
	<b>Sub Total (B)</b>		-	-	<b>149</b>				
	<b>Total (A+B)</b>		-	-	<b>350</b>				

3. CEMENT CORPORATION OF INDIA LIMITED (CCI)

(Rs. in crore)

Sl. No.	Names of the Scheme/ Programmes	Objective/ Outcome	Outlay 2016-17			Quantifiable/ Deliverable/ Physical Outputs	Projected Outcomes	Processes/ Time lines	Remarks/ Risk Factors
			4						
1	2	3	4(i)	4(ii)	4(iii)	5	6	7	8
			Non-Plan	Plan	CEBR				
1	Rajban Unit	Close circulating of cement mill	-	-	11.00	For PPC production	Penetration in the market cost increase profitability	March'17	
2	Tandur	Modernization and up-gradation of plant	-	-	44.63	Up-gradation results in saving of energy cost to enable company compete in the markets	Saving of Power and Coal	March'17	
	<b>Total</b>		-	-	<b>55.63</b>				

**Note :** As per sanctioned scheme the above project is to be funded from sale proceeds of 7 non-operating units which is delayed, hence the above project is undertaken from own generation.



4. HINDUSTAN MACHINE TOOLS LTD. (HMT & ITS SUBSIDIARIES)

(Rs. in crore)

Sl. No.	Name of Scheme / Programme	Objective / Outcome	Outlay 2016-17			Quantifiable Deliverables/ Physical Output	Projected Outcomes	Processes/ Timeliness	Remarks /Risk Factor
			Non-Plan	Plan	CEBR				
1	2	3	4(i)	4(ii)	4(iii)	5	6	7	8
1.	<b>HMT Watches Limited</b>								
	Restructuring of PSEs	Closure of PSE	*	-	-	VRS package for 965 employees & closure	Proposed closure as per Cabinet decision dated 06.01.2016	6 months from sanction/release of fund	-
2.	<b>HMT Chinar Watches Limited</b>								
	Restructuring of PSEs	Closure of PSE	*	-	-	VRS package for 31 employees & closure	Proposed closure as per Cabinet decision dated 06.01.2016	6 months from sanction/release of fund	-
3.	<b>HMT Bearings Ltd.</b>								
	Restructuring of PSEs	Closure of PSE	*	-	-	VRS package for 50 employees & closure	Proposed closure as per Cabinet decision dated 06.01.2016	6 months from sanction/release of fund	-

\*Non-plan funds shall be disbursed as per Cabinet decision in each case.

5. HINDUSTAN PAPER CORPORATION LIMITED (HPC)

(Rs. in crore)

Sl. No.	Name of the Schemes/ Programme	Objective Outcome	Outlay 2016-17			Quantifiable Deliverables/ Physical Outputs	Projected outcomes	Processes/ Timelines	Remarks/ Risk Factors
			4(i) Non Plan	4(ii) Plan	4(iii) CEBR				
1	2	3				5	6	7	8
	HPC (Cachar Paper Mill )	To attain competitiveness and sustained growth including Energy/ Environmental Protection measures as also renewals & replacements.	Nil	30.01	---	Conversion of Meter gauge to Broad gauge inside the premises of Cachar Paper Mill & statutory compliance with pollution control within the means, with renewals & replacement.	Gauge conversion will help procurement outside NER easy, Environmental measures and Renewals & Replacement.		Without regular renewals & replacements, sustained competitiveness and growth cannot be achieved. Moreover continued imbroglio over coal issue is also a challenge.

6. RAJASTHAN ELECTRONICS & INSTRUMENTS LTD. (REIL)

(Rs. in crore)

Sl. No	Name of Scheme / Programme	Objective / Outcome	Outlay 2016-17			Quantifiable Deliverables / Physical Outputs	Projected Outcomes	Processes Timelines	Remarks / Risk Factors
			4 (i)	4 (ii)	4 (iii)				
1	2	3	Non Plan Budget	Plan Budget	CEBR	5	6	7	8
1.	Modernisation/upgradation of R & D & IT Business Infrastructure for Electronics & Solar.	To Improve the efficiencies of the present facility.	-	-	6.00	This will improve efficiencies of the present facility.	Improvement in efficiencies of the present facility.	1 Year	-

7. SCOOTERS INDIA LIMITED, LUCKNOW

(Rs. in crore)

Sl. No	Name of Scheme / Programme	Objective / Outcome	Outlay 2016-17			Quantifiable Deliverables / Physical Outputs	Projected Outcomes	Processes Timelines	Remarks / Risk Factors
			4 (i)	4 (ii)	4 (iii)				
1	2	3	Non Plan Budget	Plan Budget	CEBR	5	6	7	8
1.	Renewal & replacement	Production of three wheelers	-	20.00		Expected Production of 12500 Nos. of 3 wheelers	Expected Production of 12500 Nos. of 3 wheelers	2016-17	Ageing workforce & Retirements

**Reasons for Surrender/savings in the Year 2015-16 in major schemes/  
Programmes under Department of Heavy Industry**

(Rs.in crore)

Sl. No.	Scheme/Items	BE 2015-16	RE 2015-16	Savings/ surrender	Reasons/Remarks
1	National Automotive Testing and R&D Infrastructure Project (NATRIP)	300.00 (loan)	0.00	300.00	Rs.300.00 crore as plan loan was allocated to NATRIP. The Revised Cost Estimate-II (RCE-II) was approved by the EFC in its meeting dated 16.09.2015. However, it could not be released because RCE-II could not be approved by the Cabinet. Therefore, it has been reduced to zero at RE stage.
2	New Scheme of R&D Project Development of Advanced Ultra Super- Critical (Adv-USC) Technology for Thermal Power Plants	50.00	0.00	50.00	The scheme has not been approved. Hence, BE provision has been reduced to zero at RE stage.
3.	Investment in Hindustan Paper Corporation Ltd. (Nagaland Pulp & Paper Company Limited )	54.00	0.00	54.00	An amount of Rs. 100.00 crore was released in 2013-14 for RMBP project work. BIFR gave final clearance only on 29.01.2015. Thereafter, the major work for the project was started. In anticipation, a provision of Rs. 54.00 crore was made in the year 2015-16, however, in the absence of Utilization Certificates in respect of funds released in the year 2013-14, BE has been reduced to zero at RE stage.
4.	Investment in Heavy Engg. Corporation Limited.	50.00	0.00	50.00	Modernization Plan of HEC is being finalized for seeking the approval of the Cabinet. Therefore, the allocation made in BE 2015-16 could not be utilized.
5.	Scheme on Enhancement of Competitiveness in the Indian Capital Goods Sector.	25.00	23.00	2.00	The allocation made to the scheme has been reduced by Rs. 2.00 crore at RE stage because there is delay in finalizing proposal from Industry partners in IIT Madras Project due to heavy flood scenario in the Chennai in December, 2015.

**2.2 DEPARTMENT OF PUBLIC ENTERPRISES**

**FINANCIAL OUTLAYS, PROJECTED PHYSICAL OUTPUT & OUTCOMES OF PLAN SCHEMES**

(Rs.in crore)

Sl. No.	Name of Scheme/ Programme	Objective / Outcome	Outlay 2016-17			Quantifiable Deliverable/ Physical Outputs	Projected Outcomes	Processes/ Timelines	Remarks/ Risk factors
			4.						
1.	2.	3.	4(i) Non Plan	4(ii) Plan	4(iii) CEBR	5.	6.	7.	8.
1	<b>Counselling, Retraining &amp; Redeployment Scheme(CRR)</b>	To provide short duration training to separated employees of CPSEs (VRS/ VSS optees) so as to enable them to get redeployed.	--	3.20	--	Coverage of 3000 VRS/ VSS/ optees/ depend-nets of CPSEs.	Redeployment of around 1000 VRS/ VSS/optees/ dependents after counselling and retraining.	Scheme to be implemented after approval of the Competent authority. Implementation of Scheme by selected nodal agencies through Employees Assistance Centres (EACs) located in various parts of the country during the year 2016-17.	It is a social safety net scheme.

S. No.	Name of the Schemes / Programmes	Objective Outcome	Outlay 2016-17			Quantifiable Deliverables/ Physical Outputs	Projected Outcomes	Process/Time lines	Remarks/ Risk Factors
			4(i)	4(ii)	4(iii)				
1	2	3	Non-Plan Budget	Plan Budget	CEBR	5	6	7	8
2.	<b>Plan Scheme of Research, Development and Consultancies on Generic Issues Public Sector Enterprises (RDC).</b>	(i) conduct seminars, studies on generic issues concerning public sector enterprises (ii) conduct training programmes for capacity building and skill development (iii) constant improvement in performance evaluation and management processes CPSEs; (iv) incentivize best practices in focus areas through grant of awards / incentives to CPSEs and SLPEs; and (v) to deal with any other pertinent issue related to DPE.		6.80		(i) Workshops (ii) Seminars (iii) Benchmarking Studies (iv) Signing of MoUs (v) Capacity building training.	(i) Collaborative and cooperative learning for experience sharing through workshops / seminars.  (ii) Capacity building and skill development through training programmes.  (iii) Constant improvement in performance evaluation and management processes of CPSEs.  (iv) Incentivize CPSEs/SLPES through awards etc.	All the activities would take place as per guidelines under the RDC Scheme. Proposals are based upon rules and procedures laid down in GFR for selection of the expert/consultant / agency etc. MoUs are signed and evaluated as per MoU guidelines approved by High Power Committee on MoU.	Need based development activities are to be accomplished in a time bound manner.

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## CHAPTER-III

# REFORMS, MEASURES AND POLICY INITIATIVES

**3.0** The major thrust of the Department of Heavy Industry has been on improving the performance of CPSEs under its control and to initiate measures to promote the Auto and Capital Goods sectors. Some of the initiatives taken in this context are outlined in the succeeding paragraphs.

### **3.1 PERFORMANCE MONITORING**

The Department monitors the performance of Public Sector Enterprises on a regular basis. In order to perform its role effectively, the following major channels for flow of information, communication and interaction are in operation:

- (a) Management Information System;
- (b) The nominees of Government on the Board of Directors of Public Sector Enterprises who function as the eyes and ears of the Department and keep a close and continuous watch on the Public Sector Enterprises;
- (c) Inter- ministerial groups, Joint working groups and task forces for carrying out specific assignments; and
- (d) Periodic meetings in which a comprehensive review of the progress, problems and prospects of public enterprises is carried out with the top management of the respective public sector enterprises.

### **3.2 MEMORANDUM OF UNDERSTANDING (MOU)**

26 Memorandum of Understanding (MOU) were signed by all the CPSEs with the Government of India/ holding company for the year 2015-16.

MOU documents bring out quantifiable targets in respect of various parameters of performance measures to be taken by the enterprises to achieve these targets and the assistance to be provided by the Government. A High Level Committee under the chairmanship of Cabinet Secretary evaluates the performance of the MOU signing Companies.

### 3.3 **Autonomy to PSEs/ Navratnas and Miniratnas.**

- a) BHEL is a Maharatna CPSE. The Board of the Company has been strengthened by induction of qualified professionals; Maharatna CPSEs enjoy Greater autonomy in respect of capital expenditure, formation of strategic alliances and formulation of HRD policies
- b) There are seven CPSEs under DHI namely; REIL, HNL, EPI, HMT(I), BPCL, B&R and HPC which have been categorized as Miniratnas.

### 3.4 **Restructuring/Revival of PSEs.**

Sick and loss making CPSEs are being revived/ restructured in line with the guidelines/instructions issued by Ministry of Finance from time to time, and on the basis of specific recommendations given by the Board for Reconstruction of Public Sector Enterprises (BRPSE). During 2014-15, the approved restructuring/revival of following CPSEs under DHI are under various stages of progress:

- (i) **Nepa Ltd:** - Cabinet approved the proposal for revival of Nepa Ltd. on 06-09-2012. Accordingly orders for revival of the company have been issued. Board for Industrial & Financial Reconstruction (BIFR) in its meeting held on 23<sup>rd</sup> January, 2014 has sanctioned the Rehabilitation Scheme of Nepa Ltd, which came into force from the date of approval of Rehabilitation Scheme. Rs. 17.18 crore has been released to Nepa Ltd. towards cash loss from production for 1<sup>st</sup> year and Rs. 58.10 crore has been released for implementation of Revival & Mill Development Plan (RMDP) in Nepa Ltd. The RDMP consist of installation of de-linking plant with capacity of 300TDP, up-gradation of two paper machines, installation of new captive power plant and renovation of existing captive power plant. After completion of project, NEPA will enter product diversification.
- (ii) **Nagaland Pulp and Paper Co. Ltd.:-** CCEA in its meeting held on 4.6.2013 has already approved revival package for Nagaland Paper & Pulp Company Limited (NPPC). The implementation of revival plan is under process and operation of the mill is projected to start in March, 2016.
- (iii) **Scooters India Ltd.:-** Cabinet approved the proposal for revival of Scooters India Ltd. on 31<sup>st</sup> January, 2013. However, the implementation of the revival package has not been completed so far as the matter is still before BIFR. The Hon'ble bench of BIFR, during its hearing held on 15<sup>th</sup> September, 2015 has noted that the net worth of SIL has become positive by substantial amount as per Audited Balance Sheets of as on 31.03.2013 and 31.03.2014, and thus it does not remain to be a sick industrial company in term of Section 3(1)(0) of SICA. They have discharged the company from the purview of SICA.



### **3.5 Closure of CPSEs**

With a view of making Public Sector Undertakings (PSUs) a vehicle of growth, review of functioning of PSUs under DHI has been carried out. The review took into account the products manufactured by these companies as also their present financial position. Pursuant to this, Government has decided to close down four CPSEs, namely, (i) Tungabhadra Steel Products Limited (TSPL) (ii) HMT (Watches) Limited, (iii) HMT (Chinar Watches) Limited and (iv) HMT (Bearings) Limited by offering attractive Voluntary Retirement Scheme/ Voluntary Separation Scheme (VRS/ VSS) to the employees of these CPSEs. Further, another proposal to close down a CPSE namely Hindustan Cables Ltd. is under consideration of Government. These companies are to be closed down following the separation of the employees, and while the movable assets would be either auctioned or transferred to holding/subsidiary/associate CPSEs or Government/Government controlled Bodies, the immovable assets i.e. land and/or buildings would be transferred to Central/State Government or Central/State Government entities/ PSUs only depending on the terms of lease/ownership in each case.

### **3.6 National Automotive Testing and R&D Infrastructure Project (NATRiP):-**

The National Automotive Testing R & D Infrastructure Project (NATRiP), approved by the Government in 2005, envisages setting up of world-class automotive testing and homologation facilities in India with a total investment of Rs.1,718crore. The cost of the project was revised to Rs. 2288.06 crore with date of completion on 31<sup>st</sup> December, 2014. A Cabinet note for seeking extension for the date of completion of the Project to 31.12.2017 is under submission. The project envisages setting up the following broad facilities:-

- (a) A full-fledged testing and homologation center within the northern hub of automotive industry at Manesar in the state of Haryana;
- (b) A full-fledged testing and homologation center within the southern hub of automotive industry at Oragadam, near Chennai, the state Capital of Tamil Nadu ;
- (c) Comprehensive upgradation of existing testing and homologation facilities in the western hub at Automotive Research Association of India (ARAI), Pune and at Vehicle Research and Development Establishment (VRDE), at Ahmednagar in the state of Maharashtra;
- (d) A world-class Proving Ground on more than 4,000 acres of land at Pithampur, near Indore in the state of Madhya Pradesh ;
- (e) A Centre for Testing of Tractors and Off-Road Vehicles in the Northern region of the country, with national facility for accident data analysis and specialized driving training at Rae Bareilly, about 60 miles from Lucknow the state capital of Uttar Pradesh; and

- (f) A Specialized Hill Area Driving Training Centre and an In-Use Vehicle Management Centre in the North Eastern region at Silchar in the state of Assam.

Apart from this, NATRIP will also establish Nine Centers of Excellences at above mentioned centers to further R&D in Automotive Sector. NATRIP has made an expenditure of about Rs.1946.35 crore against the release of Grants in aid of Rs. 1754.29 crore on the project till 15<sup>th</sup> November, 2015. Total Commitments made so far the project are about Rs. 3048 crore till 15<sup>th</sup> November, 2015, which includes awarded contracts of Rs. 2668 crore, land cost of Rs.234 crore and administrative expenditures of Rs. 146 crore. Approval of total project cost as per RCE-II proposal for Rs.3727.30 crore is under consideration. The Cabinet has approved extension of completion scheduled date of the project to 31.12.2017.

### **3.7 Scheme : Enhancement of Competitiveness in the Indian Capital Goods Sector**

Major sub sectors of Capital Goods Sector are machine tools, textile machinery, Earthmoving and Mining Machinery, Process plants, boilers & turbines, Heavy Electrical Equipment including transformers, boilers turbines. A Scheme on Enhancement of Competitiveness in the Indian Capital Goods Sector has been notified by the Department on 5<sup>th</sup> November, 2014. The Scheme envisages a budgetary support of Rs. 581.22 crore has infrastructural components like setting up of Centers of Excellence (CoE) for Technology Development, Integrated Industrial Infrastructure Facility (IIIF), Common Engineering Facility Centre (CEFC) and Test & Certification Centre. The Scheme also envisages financial intervention by way of Technology Acquisition Fund Programme for acquisition/transfer of technology in Capital Goods Sector. An amount of Rs.25 crore has been allocated for the Scheme in BE 2015-16 which has been curtailed to Rs. 23 crore in RE 2015-16. So far three Meetings of the Apex Committee have been held. In the current financial year, on the basis of recommendation in the 1<sup>st</sup> Meeting of the Apex Committee dated 11.12.2014, an amount of Rs. 8.18 crore, as the first installment of GoI grant, has been released to TAGMA Centre of Excellence & Training for setting up a common Engineering Facility Centre near Chakan, Maharashtra for Tools, Moulds and Dies Industry. Two more meetings of the Apex Committee have been held on 08.10.2015 and 28.01.2016. In the 2<sup>nd</sup> Meeting, the Apex Committee has approved 11 technologies on Machine Tools Industry to be developed at Indian Institute of Technology, Madras under CoE component of the Scheme. The Committee has also approved a proposal for HMT Machine Tools Ltd. for setting up a Training and Skill Development Centre under CEFC Component of the Scheme. Since then approval letters have been issued to both IIT Madras, and HMT Machine Tools Ltd. and MoU has been signed between DHI and IIT, Madras. Fund will be released to these organizations after they fulfill terms and conditions of GoI grant in aid under the Scheme. In the 3<sup>rd</sup> Meeting, Apex Committee approved a proposal from PSG College of Technology for developing welding technologies under CoE component of the Scheme, a proposal from the Government of Karnataka to set up a Machine Tool Park under IIIF

component of the Scheme, a proposal from Heavy Engineering Corporation for setting up a Training Centre under CEFC component of the Scheme and two proposal from HMT Machine Tools Ltd. for acquisition of technology in the field of machine tools under TAFP component of the Scheme. Detailed approval letters to the concerned applicants will be issued after circulation of the minutes of the Meeting.

### 3.8 Gender empowerment

- (i) DHI and PSEs under its administrative control constantly endeavor to ensure that there is no discrimination against women on any account. All members of the staff are made conscious of the principles of gender mainstreaming and gender justice.
- (ii) In order to create awareness regarding human rights especially of female employees, Department of Heavy Industry, in accordance with the directions issued by the Government for the preservation and enforcement of rights to gender equality and justice to working women employees has appointed a Complaint Redressal Committee headed by a woman officer in the Department for redressal of complaints related to sexual harassment of women. Department actively encourages women employees to freely participate in all activities like meetings, seminars, competitions and training etc. This helps in ensuring their integration into the mainstream work force.

### 3.9 Skill Development

- (i) **Automotive Sector:-** Department of Heavy Industry has taken an initiative for “Formulation of Skill Development Plan” with a view to make available adequate, trained manpower for sectors like machine tools, heavy electrical, auto industry etc., so as to ensure proper streamlined and high growth rate during the current fiscal and in future. As far as auto sector is concerned, the task of identifying the skill gaps in the industry was undertaken through the specialized group formed during the framing of AMP 2006-16, whereby the industry is expected to require an additional 25 million workforce by 2016. Based on the deliberations held in the Department on various occasions, the Society of Indian Automobile Manufacturers (SIAM) prepared a Detailed Project Report (DPR). Automotive Skill Development Council (ASDC) has been set up on 18.3.2011 by SIAM, ACMA and FADA and supported by Government (DHI, NSDC) to address the skill gap in automotive sector. ASDC is the very first sector council in India. ASDC has successfully completed initial pilot project, covering 3 trades related to the auto sector, in development of curriculum standard, providing training to teacher, conducting validation, examination etc. ASDC has planned to set up 10-15 Academies of Excellence to support the large number of training delivery canters across the country.

- (ii) **Heavy Engineering and Machine Tools Industry:** - Capital Goods Sector directly employs 1.4 million people. The indirect employment is 7 million. However, the Industry has been voicing its concern about the mismatch in skills possessed by college/diploma/ITI graduates and what is required by them. Department of Heavy Industry has been instrumental in setting up Capital Goods Skill Council. Through this organization, National Skill Standards are being notified with the purpose of defining skill needs of the industry. In this way, training institutions will be able to impart skills which are valued by employers in Industry. The Council has been targeted to benefit 10 million people. The Department is also planning to build eco-system for skill development. The components of eco-system include update of national skill standards, content development, systems and process definitions, specifications of facilities at training institutions, training of support cadre, training of existing workers as well fresh intake and other promotional activities. A Scheme is targeted to be made operational during 2017-18.

### 3.10 CPSEs under Department of Heavy Industry

Under skill development programs, CPSEs under the Department of Heavy Industry have the target of training of 40,000 persons for the year 2016-17.

### 3.11 National Automotive Board (NAB)

The Government had approved the setting up of National Automotive Board as an autonomous Society under DHI. NAB is intended to be a lean organization housing auto sector technical and domain expertise that will also bring on a single platform the multitude of agencies and Ministries that currently have a role to play in shaping the policies, regulations and interventions that impact the automotive sector thereby providing a holistic approach for the growth and development of the sector. Consequent upon the Cabinet Approval in October, 2012 for setting up of National Automotive Board as an autonomous Society under DHI, NAB has been registered by the registrar of societies, NCT of Delhi as an autonomous Society under the Societies Registration Act XXI of 1860 on 27th August, 2013 vide registration No S/ND/311/2013. NAB's MOA and Rules & Regulations have also been registered.

Key functions assigned to National Automotive Board as contained in Cabinet Note are mainly three types of functions namely

- (a) **Key Functions which inter – alia include:** Administer, monitor, coordinate, regulate and synergize the functioning of the testing centres under DHI, Capacity building, standardization of testing procedures, Issuance of testing & homologation certificates based on test reports submitted to NAB by the testing centres, To be the repository of technical data, domain knowledge and expertise for providing advice, technical inputs and secretariat assistance for auto policy related issues, Develop skills sets and competencies in the area of automotive R&D and testing etc.

(b) **Core Functions:** which include inter – alia: to prepare policies and carry out Accreditation of test labs, Look after the entire spectrum of initiatives and issues related to the electric mobility in automobile sector, Design & Administration of New Vehicle Assessment Program [NVAP], To function as a National Repository of Data relating to Automotive Sector and undertake Analysis, Collaborate with the Road Safety Board under Ministry of Road Transport and Highways, Coordinate R&D Projects funded by various organizations like Cess Funds Projects, Test Facility planning, up gradation & Expansion for Test Centre readiness, Test Centers Co – relation audit and benchmarking, Appellate Body for any test related disputes, Development of Manpower Capability in the areas of emerging automotive technologies, Fostering and promoting exchange with industry and academia. (MoU and international and national exchange programs).

**Facilitative Functions:** which include inter – alia: to function as a National Certification Board for vehicles and components and to issue Certificates for vehicles and components based on the test reports issued by the accredited test agencies, Study of feasibility for adoption of International Harmonization of regulations, Publication of standards, Regulations and Information of Public Interest, Promotion of Indian Regulatory system for automotive testing internationally etc.

An incentive scheme to be known as “**DEMAND INCENTIVE DELIVERY MECHANISM (DIDM)**” has been launched to promote and create the demand of electric vehicles in the country effective from 1<sup>st</sup> April, 2015. National Automotive Board shall be the operating agency for the implementation of the scheme including disbursement of funds for the various components under the overall supervision and direction of Heavy Industry. So far, Demand incentive received for more than 30,000 vehicles till December, 2015 and about Rs. 30.00 crores has been reimbursed to various OEMs.

### 3.12 **Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India –FAME India.**

Government of India approved the National Mission on Electric Mobility in 2011 and subsequently National Electric Mobility Mission Plan 2020 was unveiled (in 2013) by the then Hon’ble Prime Minister. As part of the mission, DHI has formulated a scheme namely **FAME –India** (Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India). The overall scheme is proposed to be implemented over a period of 6 years, till 2020, wherein it is intended to support the hybrid/electric vehicles market development and its manufacturing eco-system to achieve self-sustenance at the end of the stipulated period. Government is committed to instill confidence in the industry and allow them to plan requisite investments and create needed capacities. This shall also enable the scheme to align with “Make in India” initiative. The scheme shall have 4 focus areas i.e. Technology Development, Demand Creation, Pilot Projects and charging Infrastructure. The Phase-1 of the scheme shall be implemented over a 2 year period i.e. FY 2015-16 and FY 2016-17 commencing from 1<sup>st</sup> April 2015.

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**CHAPTER- IV**

**REVIEW OF PAST PERFORMANCE OF SCHEMES & CENTRAL  
PUBLIC SECTOR ENTERPRISES 2014-15 & 2015-16 (upto 31.12.2015)**

**DEPARTMENT OF HEAVY INDUSTRY**

**Schemes/Programmes**

**2015-16**

**(Rs. in Crore)**

<b>Sl. No.</b>	<b>Name of Scheme/ Programme</b>	<b>BE</b>	<b>Exp. (Plan)</b>	<b>Projected deliverables/ physical outputs</b>	<b>Actual Achievement (Outcomes/deliverables/outputs)</b>	<b>Reasons for variation</b>
1.	<b>National Automotive and R&amp;D Infrastructure Project (NATRIP)</b>	300.00 (Plan Loan)	NIL	(i). Completion of civil & utility works in EMC lab, fatigue lab, and I&F lab, substation building, infortonocs, Photometry lab in GARC Chennai. (ii) Installation, Commissioning & Acceptance of Fatigue lab Test platform, CERT lab, in GARC Chennai. (iii) Work of relating to National Automotive Test Tracks at NAT-RAX, Indore. (iv) Completion of unfinished targets of 2014-15 Passive Safety, Powertrain, EMC, and Fatigue labs at ARAI, ICAT and GARC	(i) (a) Civil work were on final Stage. (b) Equipment are being installed on the centres. (c) Some lab (MACD) and photometry lab, Powertrain-Shed lab completed for testing. (ii) Installation, Commissioning & Acceptance of Fatigue lab test plat form, CERT Lab in GARC, Chennai. (iii) Completion of Vehicle Dynamic lab (VDY), Power train Lab in NATRAX, Indore. (iv) Powertrain Lab, Fatigue and Certification Lab, Passive Safety Lab, Electromagnetic. Compatibility Lab and Homologation Tracks along with associated utilities are in advanced stage of completion (v) Major civil work for the Noise, Vibration and Harshness (NVH) Lab is complete and the Installation and Commissioning of the NVH Lab equipments are under progress (vi) CAD-CAE lab is commissioned. The softwares available for research and development purpose are SIEMENS NX, CATIA V6, MSC Fatigue and Altair Hyper works (vii) Pass by Noise measurement device is commissioned. The Data Acquisition System, Vehicle Dynamics Sensors, Wheel Sensors and Longitudinal Speed Sensors are delivered and ready for commissioning.	Technological and contractual issues.

Sl. No.	Name of Scheme/ Programme	BE	Exp. (Plan)	Projected deliverables/physical outputs	Actual Achievement Outcomes/deliverables/outputs	Reasons for variation
1.	<b>National Automotive and R&amp;D Infrastructure Project (NATRIP)</b>	426.93 (Plan Grant-in-Aid)	241.91	<p>(i) Completion of civil &amp; utility works in EMC lab, fatigue lab, and I&amp;F lab, substation building, infortunes, Photometry lab in GARC Chennai.</p> <p>(ii) Installation, Commissioning &amp; Acceptance of Fatigue lab test platform, CER lab, in GARC Chennai.</p> <p>(iii) NATRAX-Completion of VDY lab, STP &amp; WTP lab, power train lab, and Test track equipment (VDY4) in NATRAX, Indore.</p> <p>(iv) Completion of unfinished targets of 2012-13 and 13-14 i.e. MACD, photometry lab, PWD, PSL lab.</p>	<p>((i) Execution as per Detailed Project Implementation Project (DPIR).</p> <p>(ii). ICAT Centre-MACD Lab, PWT4-SHED facility, PAS lab Commissioned and Civil work for Fatigue &amp; Certification Lab, Client workshop &amp; General Storage building completed.</p> <p>(iii). Mileage Accumulation Chassis Dynamometers (MACD) Lab for 2&amp;3 wheelers and 4x4 wheelers are operational. Sealed Housing Evaporation Determination (SHED) facility is operational for 2 wheelers and Passenger cars.</p> <p>(iv). Photometry lab comprising of various facilities such as Goniophotometer, Integrating Sphere, Reflectance and Transmittance measurement and Profile Projector are completed.</p>	Technological and contractual issues.

(Rs. in crore)

Sl. No.	Particulars	BE 2014-15 (Plan)	Expenditure (Plan)	2014- 15		
				Target	Achievement	Reasons for variation
2.	<b>Scheme on Enhancement of Competitiveness in the Indian Capital Goods Sector</b>	25.00	2.80	Finalization of the Scheme and make it operational.	The Scheme was approved by the Cabinet Committee on Economic Affairs in its meeting dated 15.9.2014. The Scheme has subsequently been notified in the Gazette on 5.11.2014. The first meeting was held on 26.11.2014 and the first meeting of the Apex Committee was held on 11.12.2014. Decisions of the Apex Committee have been communicated to the concerned applicants on 22.1.2014. An amount of Rs. 2.80 crore has been released to CMTI, Bangalore on 31.3.2015 for development of hi-tech shuttle less looms under Centre of Excellence Component of Scheme.	The Scheme has since been made operational.



Sl. No.	Particulars	BE 2015-16 (Plan)	Expenditure (Plan) upto January 2016	2015- 16		
				Target	Achievement up to January 2016	Reasons for variation
2.	<b>Scheme on Enhancement of Competitiveness in the Indian Capital Goods Sector</b>	25.00	8.18	<p>First quarter release of 1<sup>st</sup> installment to TAGMA:</p> <p>Second quarter: project approval to IIT-KGP, IIT-Bombay, IIT-Madras, TMMA(Surat CFC)</p> <p>Third quarter Project approval to IIT Delhi. Release of 1<sup>st</sup> installment to IIT-KGP, IIT-Bombay, IIT-Madras, TMMA(Surat CFC)</p> <p>4<sup>th</sup> Quarter release of 2<sup>nd</sup> installment to CMTI-TMMA</p>	<p>1<sup>st</sup> installment of grant amounting to Rs. 8.18 crore has been released to TAGMA Centre of Excellence &amp; Training under CEFC component of the scheme. So far Apex Committee has approved</p> <p>(1)11 projects for development of Machine Tools Technology by IIT Madras</p> <p>(2)Setting up a Training &amp; Skill Development Centre for machine tools to HMT Machine Tools Limited under CEFC component.</p> <p>(3)Machine Tool Park (MTP) by Government of Karnataka Under IIFC component of the Scheme</p> <p>(4)Four Guideway CNC lathe by HMT Machine Tools Ltd., Bangalore under (TAFP) component of the scheme</p> <p>(5)Turning Mill Centre SBCNC 30 TMY by HMT Machine Tools Ltd., Kalamassery under (TAFP) component of the Scheme</p> <p>(6)Setting up high tech Training Centre by Heavy Engineering Corporation (HEC) under CEFC component of the Scheme</p> <p>(7)Development of 3 welding technologies by PSG College of Technology under CoE component of the Scheme.</p>	<p>TCET delayed in acquisition of land which was a condition for releasing the fund.</p> <p>It is expected to re-lease the grant of Rs. 14.99 crore to IIT Madras and Rs. 0.7760 crore HMT MTL before 31.03.2016 and utilize the fund fully.</p>

Sl. No.	Particulars	BE 2015-16 (Plan)	Expenditure (Plan)	2015-16		
				Target	Achievement	Reasons for variation
3.	<b>Scheme for Faster Adoption and Manufacturing of (Hybrid &amp;) Electric Vehicles in India – FAME India (earst while known Schemes in Automotive Sector Testing Infrastructure and R &amp; D Projects for Electric Vehicles/ Faster Adoption &amp; Manufacturing of Hybrid &amp; Electric vehicles.)</b>	75.00	48.11	i).Development of web-application for e-abled transfer of demand incentive.  ii).Implementation and release of demand incentives to OEM as per the Scheme	i) Online web-application developed and demand incentive is being process on line. ii) Demand incentive received for more than 30,000 vehicles till December, 2015.	---
4.	<b>R.&amp;D project for Development of Advanced Ultra Supercritical (AUSC) Technology for Thermal Power Plants on a Mission Mode:</b>	50.00	0.00	Indigenously developing the design of 800 MW capacity coal fired thermal power plant, operation with steam parameters of 710 degrees Celsius and 310 bar pressure.	The budget allocation for the scheme has been reduced to zero at RE stage as scheme has not been approved.	

## CENTRAL PUBLIC SECTOR ENTERPRISES (CPSEs)

### 1. ANDREW YULE & COMPANY LIMITED (AYCL)

(Rs. in crore)

Sl. No	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement (till Jan.16)	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
<b>1.</b>	<b>Financial Parameters</b>						
(A)	Production	350.00	354.25		347.00	303.00	AYCL expects to achieve a production of Rs.370.00 crore, Gross Margin Rs.19.86 crore and PBT of Rs.4.00 crore in 2015-16 due to delayed order taking of Electrical Divn. production will not be achieved during the financial year..
(B)	Sales	350.00	351.00		336.00	300.00	
(C)	PBDIT(Gross Margin)	37.00	29.95	(-)7.05	39.43	17.73	
(D)	Net Profit before Tax	19.00	13.89	(-)5.11	25.54	1.65	
(2)	<b>Scheme</b>						
(a)	Plantation and augmentation of manufacturing and support facilities for west Bengal Tea Gardens	2.00	2.00		2.00	2.00	
(b)	Plantation and augmentation of manufacturing and support facilities for Assam Tea Gardens in North Eastern	5.00	5.00		4.00	2.00	Remaining will be spent within 31.03.16. Order placing is in process.
(c)	Product development and allied facilities at Electrical and Engineering Division	5.00	4.30	Short closed	5.00	0.51	-do-
	<b>Total</b>	<b>12.00</b>	<b>11.30</b>		<b>11.00</b>	<b>4.51</b>	

2. **BHARAT HEAVY ELECTRICALS LTD. (BHEL)**

(Rs. in crore)

Sl. No	Particulars	2014-15			2015-16 (Estimate)		
		Target RE	Achievement	Reason for Variation	Target	Achievement	Reason for Variation
1	2	4(i)	4(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from operations (Net Turnover)	45600	30947	The subdued market condition and strenuous Economic and Business environment resulting in lesser receipt of fresh executable orders and Hold Projects not coming on stream have affected the operations.	33000	28000	Shortfall in turnover owing to : i) Projects put on hold in 2015-16 ii) Customer related issues iii) Non-fructification of anticipated orders
2	Gross Margin	6134	3309	Lower level of operations as explained above has resulted in lower value addition. Despite savings in material & other costs, there is shortfall of 46% in Gross Margin.	3014	-235	Owing to lower level of operation as mentioned above and creation of provision against hold projects dues/inventory as per the guidelines formulated have resulted in negative profit.
3	Net Profit Before Tax	4825	2140		1748	-1247	
4	Profit After Tax	3305	1078		1235	-800	

3. **THE BRAITHWAITE BURN AND JESSOP CONSTRUCTION. CO., LTD. (BBJ)**

(Rs. in crore)

Sl. No	Particulars	2014-15			2015-16 (up to December, 2015)		
		MoU Target	Achievement	Reason for variation	Target	Achievement	Reason for variation
	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Gross Production	303.00	199.48		198.40	126.78	
2	Revenue from Operation (Gross Sales)	303.00	203.38		198.40	121.78	
3	Net Profit (before tax)	22.67	72.00		13.17	39.06	
4	Net Profit (after tax)	15.20	46.09		9.06	26.11	

4. **BHARAT PUMPS & COMPRESSORS LTD. (BPCL)**

(Rs. in crore)

Particulars	2014-15			2015-16 (Provisional)		
	Target	Achievement	Reason for Variation	Target	Achievement (Upto Jan. 2016) PROV	Reason for Variation
2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
Income from operations	210.00	77.69	i) Delay in upcoming projects. Slow-down in order booking. ii) Delay in receipt of major casting/ Forgings. iii) Slowdown in demand for industrial gas cylinders. iv) Severe financial/pavement crisis. Not able to place input material and other resources in time thus desired production could not be achieved.	210.00	56.67	i) Severe financial/pavement crisis. Not able to place input material and other resources in time thus desired production could not be achieved.
Gross Margin	14.50	-34.72	-	25.20	-28.16	
Net Profit Before Tax	4.5	-47.76	-	9.90	-37.29	
Profit after tax	2.97	-55.24	-	6.53	-37.29	

5. **BRIDGE & ROOF CO. (INDIA) LTD., (B&R)**

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from Operation (Net)	1475.00	1431.59	Economic slow-down and entry of large number of construction companies both big and small leading to a highly competitive market resulting in lower margin.	1165.00	1091.32	Cut throat competition with Private/ PSU companies in this field due to limited market opportunities.
2	Gross Margin (PBDIT)	80.00	40.10		45.30	26.49	
3	Net Profit Before Tax	40.00	17.89		16.20	7.97	
4	Profit After Tax	26.00	12.00		10.59	5.21	

6. CEMENT CORPORATION OF INDIA LTD. (CCI)

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from Operation (Net)	417.74	402.92	Sales target lower due to lower demand but Gross Margin and Net Profit become higher than the projected due to withdrawal of interest liability as per sanctioned scheme.	397.20	443.43	During the current year company will perform better maximum utilizing its resources and controls over cost
2	Gross Margin including except income	20.98	49.41		24.03	52.17	
3	Net Profit Before Tax	8.24	40.08		9.28	41.85	
4	Profit After Tax	8.24	40.08		9.28	41.85	

7. ENGINEERING PROJECTS (INDIA) LTD. (EPI)

(Rs. in crore)

Sl. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reason for Variation	Target (Upto December, 2015)	Achievement (Upto December, 2015) Un-Audited	Reason for Variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from Operation (Net)	1250.00	1031.28	The shortfall from Target Turn-over is due to non-availability of work fronts at various sites and non-availability of funds with some of the clients.	770.00	930.73	
2	Gross Margin	49.56	49.29		19.25	26.80	
3	Net Profit Before Tax	41.31	41.21		12.91	19.50	
4	Profit After Tax	28.00	27.09		8.75	12.75	

8. JAGDISHPUR PAPER MILLS LTD. (JPML)

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reason for variation	Target	Achievement	Reason for variation
1	2	3(i)	3(ii)	3(iii)	7	8	9
1	Revival of JPML	55.00	18.00	Non-availability of free land.	0.01	-	Non-availability of free land.

9. HINDUSTAN MACHINE TOOLS LIMITED (HMT)

Production Performance & Financial Results in 2014-15

(Rs. in crore)

Company / Subsidiary	Audited Performance 2015-16						Reasons for Variations
	Production		Sales (W/o ED)		PBT #		
	Target	Act.	Target	Act.	Target	Act.	
HMT Limited – Holding Company (Including Tractors)	249.25	53.66	265.25	60.28	-49.35	-96.57	Delay in Revival Plan Sanction, Working Capital Constraints, Supply Chain Delays, Distribution Network Breakdown
HMT Machine Tools Limited.	206.75	181.50	225.00	172.15	-57.36	-134.94	Working Capital Constraints, Supply Chain Delays, Dispatch clearance delays, Paucity of Manpower
HMT Watches Limited.	12.00	2.69	15.00	8.13	-292.10	-259.20	Inadequate Distribution Channel, Working Capital Constraints, Lack of Sales promotion
HMT Chinar Watches Limited.	0	0	0.80	0.90	-45.51	-49.05	No Production Activity
HMT Bearings Limited	15.15	14.20	14.50	14.75	-14.69	-17.78	Quality constraints due to old machineries.
HMT (International) Limited.	-	-	42.00	33.40	4.41	1.66	Delay in Finalization of MEA project orders, Supply delays
<b>Total</b>	<b>483.15</b>	<b>252.05</b>	<b>562.55</b>	<b>289.61</b>	<b>-454.60</b>	<b>-555.88</b>	

**Production Performance & Financial Results in 2015-16**

(Rs. in crore)

Company / Subsidiary	Audited Performance 2015-16 till Dec - 2016						Reasons for Variations
	Production		Sales (W/o ED)		PBT #		
	Target	Act.	Target	Act.	Target	Act.	
HMT Limited – Holding Company (Including Tractors)	144.00	32.09	150.00	36.13	-304.83	-73.80	Delay in Sanctioning of Funds for Revival Plan, Working Capital Constraints, Supply Chain Delays,
HMT Machine Tools Limited.	240.00	129.76	250.00	153.03	-529.83	-99.17	Working Capital Constraints,
HMT Watches Limited.	15.00	0.84	15.00	3.33	-262.10	-202.79	Inadequate Distribution Channel, Working Capital Constraints, Lack of Sales promotions
HMT Chinar Watches Limited.	0	0	0.80	0.0003	-45.95	-34.23	No Production Activity
HMT Bearings Limited	15.15	8.67	14.50	8.74	-19.67	-15.24	Nil
HMT (International) Limited.	-	-	45.00	24.02	5.78	1.12	Product Availability, delay in dispatches, less orders
<b>Total</b>	<b>414.15</b>	<b>171.36</b>	<b>475.30</b>	<b>225.25</b>	<b>-96.94</b>	<b>-424.11</b>	

#With EOI



10. HEAVY ENGINEERING CORPORATION LTD. (HEC)

(Rs. in Crore)

Sl. No.	Particulars	2014-15			2015-16			
		Target	Achievement	Reasons for variation	Annual Target	For the Period Apr-15 to Dec-15		
						Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)		4(i)	4(ii)	4(iii)
1(a)	Net Turnover	850.00	361.58	Poor availability and productivity of equipment/facilities due to aging and delay in upgradation program coupled with working capital shortage	860.00	669.40	202.37	Poor availability and productivity of equipment/facilities due to aging and delay in upgradation program coupled with Working Capital shortage.
1(b)	Production	852.20	333.54		869.30	674.18	194.16	
2	Gross Margin	44.97	-164.62	Reduction in Sales/ Production, cost overrun due to delay in execution and fixed cost remaining same.	4.80	0.62	-117.97	Reduction in Sales/ Production, cost overrun due to delay in execution and fixed cost remaining same.
3	Profit before Tax	24.62	-241.69		-29.83	-25.25	-143.27	
4	Profit after Tax	24.62	-241.69		-29.83	-25.25	-143.27	

11. HINDUSTAN NEWPRINT LIMITED (HNL)

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1.	HNL: Production --MT	110,000	1.02 lakh MT	Lower GSM	1.10 lakh MT	Production of 74763 MT of Newsprint.	

12. HINDUSTAN PAPER CORPORATION (HPC)

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1.	HPC (Cachar Paper Mill & Nagon Paper Mill) : Production –MT	207,000	1.67 lakh MT	Lower Capacity Utilization due to non-availability of fiber	2.07 lakh MT	Production of 65575 MT of Paper upto December, 2015..	Production at CPM got stopped and limping at NPM on account of non-availability of Coal and fund crunch.

13. HINDUSTAN SALTS LIMITED (HSL)

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1.	Income From Operation (Net)	15.42	6.86	Due to less Production, lack of technical professional qualified staff	13.00	3.16	Due to less Production, lack of technical professional qualified staff
2.	Gross Margin	3.80	-1.36		4.70	2.66	
3.	Net Profit Before Tax	0.45	-4.95		0.50	-0.22	
4.	Net Profit After Tax	0.45	-4.95		0.50	-0.22	

14. INSTRUMENTATION LIMITED, KOTA (ILK)

(Rs. in Crore)

S. No.	2014-15			Reason for Variation	MOU Target	2015-16	
	Particulars	Target	Achievement			Achievement (upto 31.12.2015)	Reason for Variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from Operation (Net)	345.00	158.86	Acute shortage of working capital	190.00	92.15	All efforts are being made to maximize the turnover the year. However, working capital crunch is major constraint for shortfall in turnover.
2	Gross Margin	26.58	(44.32)		(24.85)	(31.06)	
3	Net Profit Before Tax	(3.78)	(141.54)*		(60.90)	(60.30)	
4	Profit After Tax	(3.78)	(141.54)*		(60.90)	(60.30)	

\*Include Liability for Gratuity Rs. 51.20 Crore and EL Rs. 9.94 crore of earlier years provided in 2014-15.

15. NEPA LIMITED

(Rs. In Crore)

Sl. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Fresh Equity to meet part finance of Capital Expenditure.	103.00	58.10	(i) Rs. 8.10 Crore was received on 29.03.2013 as plan-equity from Govt. Vide letter no. 7(13)/2013-PE-VII dated 27.03.2014 towards part implementation of RMDP and fully utilized up to 13.12.2014 for the purpose of RMDP. (ii) Fund of Rs. 50.0 Crore received on 13.12.2014 as plan-equity from Govt. vide letter no. 7(13)/2013-PE-VII dated 26.12.2014 towards part implementation of RMDP.	98.90	50.99	(i) Rs. 50.00 Crore UC for the purpose of RMDP works already submitted. (ii) Fund of Rs. 50.99 Crore received on 31.10.2015 as Plan- equity from Govt. vide letter 7(13)/2013-PE-VII dated 23.10.2015 dated towards part implementation of RMDP. (iii) Remaining amount of Rs 47.91 crore is required to be realized DHI during 2015-16 for smooth implementation of RMDP.
2	Loan from financial institutions to meet part finance of Capital Expenditure.	84.00		(i) In principle consent letters obtained from SBI & Bol on 17.12.2012 for grant of loan subject to release of first installment of Rs. 54 Crore from Gol. (ii) Hence, Company was not drawn any amount from financial institutions.	90.00		Total loan of Rs 128 Crore from Banks is required for RMDP. SBI is seeking Govt. Guarantee or mortgage of immovable property for sanction the loan. Company has requested to provide the Govt. Guarantee.

16. NAGALAND PULP AND PAPER CORPORATION LTD. (NPPC)

(Rs. in crore)

S. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reason for variation	Target	Achievement	Reason for variation
1	2	3(i)	3(ii)	3(iii)	7	8	9
1	Revival of NPPC	25.00**	Spent Rs. 20.32 crore*	Revival is underway.	54.00 crore**	Spent Rs. 20.75 crore*	The revival process got stalled.

\*The amount spent in 2014-15 & 2015-16 were against the funds of Rs. 100 crore released to NPPC in the year 2013-14.

\*\*The BE for 2014-15 and 2015-16 was Rs.25.00 crore & Rs.54.00 crore respectively, however, due to non-availability of Utilization Certificates of the funds released in 2013-14, it was surrendered.

17. RICHARDSON & CRUDDAS LTD. (R&C)

Sr. No.	Particulars	2014-15			2015-16 Upto Dec 2015 (Provisional)		
		Target	Achievement	Reasons for variation	Target	Achievement	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from Operations (Net)	80.00	67.43	1. M/s. Larsen & Toubro Ltd. has vacated Heavy Engineering works to their own factory at Badlapur.	80.00	33.27	1. M/s. Larsen & Toubro Ltd. has vacated Heavy Engineering works to their own factory at Badlapur.
2	Gross Margin	10.50	27.36		14.63	13.26	
3	Net Profit Before Tax	(21)	(1.57)	2. Similarly M/s. Larsen & Toubro Ltd has vacated area in Company's Byculla Unit..	(21)	(11.22)	2. Similarly M/s. Larsen & Toubro Ltd has vacated area in Company's Byculla Unit..
4	Profit After Tax	(21)	(1.57)		(21)	(11.22)	

18. RAJASTHAN ELECTRONICS & INSTRUMENTS LTD., JAIPUR(REIL)

(Rs. in crore)

S. No.	Particurs	2014-15			2015-16 (Expected)		
		Target	Achievement	Reason for variation	Target	Achievement	Reason for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Income from Operations (Net)	190.00	222.70	More Profitability on higher turnover achievement	230.00	125.01	
2	Gross Margin	10.00	23.62		13.13	4.25	
3	Net Profit Before Tax	5.87	20.96		8.14	2.25	
4	Profit After Tax	3.87	14.45		5.37	1.49	

(Rs in crore)

S. No.	Name of Scheme/ Programme	2014-15			2015-16 (Expected)		
		Target	Achievement	Reason for variation	Target	Achievement	Reason for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1	Modernization/ upgradation of R&D & IT Business Infrastructure for Electronics & Solar.	5.00	1.15	Delay in getting clearance from government of Rajasthan for construction of building at Mansarovar, Jaipur.	4.00	0.50	Delay in getting clearance from Government of Rajasthan for construction of Building at Mansarovar, Jaipur.

19. SAMBHAR SALTS LIMITED (SSL)

(Rs. In Crore)

S. No	Particulars	2014-15			2014-15		
		Target	Achievement	Reason for variation	Target (Whole Year)	Achievement (up to Dec.15)	Reason for variation
1	2	3	4	5	6	7	8
1.	Income From Operation (Net)	33.12	18.94	Due to less Production, lack of technical professional qualified staff	26.50	13.65	Due to less Production, lack of technical professional qualified staff
2.	Gross Margin	7.24	-1.70		8.32	3.42	
3.	Net Profit Before Tax	0.94	-9.83		0.65	-0.10	
4.	Net Profit After Tax	0.94	-9.83		0.65	-0.10	

20. SCOOTER INDIA LTD (SIL)

(Rs. in crore)

Sl. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reasons for variation	Target	Achievement (till Dec.2015)	Reasons for variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
	<b><u>Physical Performance</u></b> Production of 3 Wheeler (in Nos.)	16500	13057	Material Constraints, Ageing work force & machinery	16,500 (12500**)	5502	Material Constraints Ageing workforce & machinery, Re-tirements & no new recruitment.

\*\*Practical/ achievable capacity has reduced to 12500 nos. against installed capacity of 16500 Nos. as per report of Chartered Engineer.

## 4.2 DEPARTMENT OF PUBLIC ENTERPRISES

### REVIEW OF PAST PERFORMANCE - 2014-15

(Rs. in Crore)

SI. No.	Name of Scheme	Objective/ Outcome	Actual Expenditure	Quantifiable Deliverable	Achievement	Reasons for variation
1.	Scheme of Counselling, Retraining & Redeployment (CRR)	Redeployment of separated employees of CPSEs through counselling and short duration training.	2.42	Coverage of 2500 VRS/VSS optees/dependents of CPSEs	2525 VRS / VSS optees/ dependents trained and 1073 redeployed.	Does not arise
2.	Scheme of Research, Development & Consultancies (RDC)	To undertake research, studies, seminars, workshops etc. on generic issues of CPSEs, Signing of MoUs, Printing of PE Survey etc..	0.93	<b>MoU Division</b> (i) Benchmarking Study of select Steel Sector (ii) ISO Certification of MoU Division (iii) Holding of Meetings on MoU (iv) Domestic Travel Expenditure (v) Sitting fees (vi) Hiring of Professionals (vii) Holding of workshops/ seminars	(i) Study completed and report submitted by Consultant (ii) ISO Certificate received (iii) Standing Committee and other meetings on MoU held (iv) Expenditure incurred on Task Force Members (v) Payment made to Task Force Members (vi) Professionals hired for online MoU system (vii) International workshop on Performance Evaluation and Management of State Owned Enterprises held in January, 2015	Does not arise



Sl.No.	Name of Scheme	Objective/ Outcome	Actual Expenditure	Quantifiable Deliverable	Achievement	Reasons for variation
				<b>Management Div.</b> (i)Workshop on aligning DPE guidelines with Companies Act (ii) Workshop for capacity building <b>Survey Unit</b> (i)Workshops on MoU system in SLPEs Printing of Public Enterprises Survey	(i)Workshop held in May, 2014 (ii)Workshop for capacity building for Non-Official Directors & Govt. Directors held in Sept.'14 and Feb.'15 (iii)Two workshops organized in September, 2014 on sharing best practices on MoU system in SLPEs. (iv)P.E. Survey 2013-14 was printed and laid in Parliament	
3.	Scheme for Skill Development / Training programme to executives/ employees of SLPEs.	To impart training/ knowledge to the Managers / Executives / Employees of SLPEs for improving their skills to enhance the overall productivity of the enterprise.	0.75	Training Programmes on SLPEs.	237 Executives attended following Training Programmes: (i)Project Management at IIM Khozikode on 15-19.9.2014. (ii)Leadership & People Development at IIM Lucknow on 25-29.9.2014. (iii)Strategic Thinking & Decision Making at IIM Lucknow on 13-17.10.2014 (iv)Strategic Thinking for Growth & Sustenance at IIM Kolkata on 15-19.9.2014. (v)Performance Evaluation and Setting Professionally Goal Oriented Targets at IIM Ahmedabad on 24-28.11.2014. (vi)Corporate Governance at IIM Shilong on 10-14.11.2014. (vii)Dynamic Life Management & Stress free Living at IIPA New Delhi on 22-23. Sept.' 2014.	Does not arise

**REVIEW OF PAST PERFORMANCE - 2015-16 (As on 31.01.2016)**

**(Rs. in Crore)**

<b>Sl. No.</b>	<b>Name of Scheme</b>	<b>Objective/ Outcome</b>	<b>Actual Expenditure</b>	<b>Quantifiable Deliverable</b>	<b>Achievement</b>	<b>Reasons for variation</b>
1.	Scheme of Counselling, Retraining & Redeployment (CRR)	Redeployment of separated employees of CPSEs through counselling and short duration training.	1.52	Coverage of 3000 VRS/ VSS optees/ dependents of CPSEs	2875 VRS/VSS optees / dependents trained 934 redeployed .	Assigned target shall be achieved by 31.3.2016
2.	Scheme of Research, Development & Consultancies (RDC)	To undertake research, studies, seminars, workshops etc. on generic issues of CPSEs, Signing of MoUs, Printing of PE Survey etc..	1.33	<p align="center"><b>MoU Division</b></p> (i) Benchmarking Study of Power Sector (ii) Benchmarking study of Mining Sector (iii) Study by Consultant for Benchmarking as per RFD target (iv) ISO Certification of MoU Division (v) Holding of Meetings	(i) RFP cancelled due to lack of competitive bidding and Ministry of Power agreeing to conduct study. (ii) Consultant finalised and draft report submitted. Payment to be made as per time line. (iii) Final report submitted by M/s E &Y for Steel Sector and M/s CRISIL for Petroleum Sector in Feb.'16. (iv) ISO Certification received and part bill paid (v) Standing Committee meetings on draft MoU to be held from last week of Feb.'16 onwards.	

SI. No.	Name of Scheme	Objective/ Outcome	Actual Expenditure	Quantifiable Deliverable	Achievement	Reasons for variation
				(vi) Domestic Travel Expenditure (vii) Sitting fees (viii) Hiring of Professionals (ix) Holding of workshops/ seminars Survey Unit (i) Workshop on International Financial Reporting Standard (ii) Workshop on Companies Act 2013 (iii) Printing of PE Survey	(vi) Bills for meeting till 31.1.2016 paid. Task Force on MoU for 2016- (vii) 17 under finalisation. Negotiation meeting for 2016-17 are scheduled from March, 2016 onwards. (viii) Payment made to Task Force Members. (ix) Professionals hired for online MoU system (x) One workshop for TF on MoU 2016-17 under finalization. (xi) Workshop held on 22.9.2015 (xii) Workshop held on implications for executives of CPSEs and SLPEs on 4.9.2015. (xiii) Printing of PE Survey, 2014-15	
3.	Scheme for Skill Development / Training programme to executives/ employ-ees of SLPEs.	To impart training/ knowledge to the Managers / Executives / Employees of SLPEs for improving their skills to enhance	0.96	Training Programmes on SLPEs.	Nine training programmes have been held as per following: (i) Project management held at IIM Kolkata from 17-21 August, 2015 (ii) Setting up Professional Goal Oriented Targets & Performance Evaluation at IIM Lucknow from 24-28 August, 2015 (iii) Leadership and other enablers for achieving Business Excellence held at IIPA, Delhi from 07-11 Sept., 2015 (iv) Production Planning, Inventory Control and Supply Chain Management held at IIM Guwahati from 09-11 Sept., 2015	

SI. No.	Name of Scheme	Objective/ Outcome	Actual Expenditure	Quantifiable Deliverable	Achievement	Reasons for variation
		the overall productivity of the enterprise.			<p>(v)Corporate Governance at IIM Shilong from 05-09 October, 2015</p> <p>(vi)Corporate Governance at IIM Bangalore from 19-21 October, 2015</p> <p>(vii)Financial Management Accountability at ICWAI Management Accounting Research Foundation, Hyderabad on 02-06 November, 2015.</p> <p>(viii)Production Planning, Inventory Control and Supply Chain Management held at IIM Guwahati from 18-20 November, 2015.</p> <p>(ix)Setting up Professional Goal Oriented Targets &amp; Performance Evaluation at IIM Ahmedabad from 14-16 December, 2015</p> <p><b><u>Management Division</u></b></p> <p>(i)Workshop on capacity building of Directors of CPSES with emphasis on Non-official Directors at Goa on 21-22.12.2016.</p> <p>(ii)Workshop on capacity building of Directors of CPSES with emphasis on Non-official Directors at Imphal on 11-12 February, 2016.</p>	

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## CHAPTER-V

### FINANCIAL REVIEW

#### 5.1 DEPARTMENT OF HEAVY INDUSTRY

5.1.1 The Department of Heavy Industry administers 31 operating Public Sector Enterprises (PSEs). The details of actuals of 2012-13, 2013-14, 2014-15, BE 2015-16, RE 2015-16 & Actuals 2015-16 upto 31<sup>st</sup> December, 2015, BE 2016-17, outstanding Utilization Certificates and Unspent Balance in respect of Department of Heavy Industry are as follows:-

(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
	<b>Revenue</b>	344.03	23.28	49.32	207.07	517.22	40.60	204.88	70.85	185.42	71.11	101.20	39.66	279.92	112.95
	<b>Capital</b>	60.00	334.89	448.96	380.12	73.75	565.77	465.00	884.00	114.58	549.89	55.99	254.97	20.08	887.05
	<b>Total</b>	404.03	358.17	498.28	587.19	590.97	606.32	669.88	954.85	300.00	621.00	157.19	294.63	300.00	1000.00
	<b>Scheme wise details</b>														
	<b>Scheme/Item/ Programme</b>														
	<b>Revenue Section</b>														
1.	<b>Secretariat Economic Service</b>	2.09	14.52	1.43	15.96	1.95	18.01	2.88	19.85	1.92	20.31	1.09	15.40	0.00	27.80
2.	<b>Development of Automobile Industry</b>													<b>199.90</b>	<b>82.15</b>

(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
2.1	National Automotive Testing and R&D Infrastructure Project (NATRIP)	341.94	0.00	0.00	0.00	241.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
2.2	Grant for creation of Capital Assets to FCRI	0.00	0.00	0.66	0.00	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	-	-
2.3	Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India-FAME-India (Earlier known as Scheme in Automotive Sector- Testing infrastructure and R&D projects for Electric Vehicles)	0.00	0.00	0.00	0.00	0.00	0.00	75.00	0.00	75.00	0.00	48.11	0.00	-	-

(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
2.4 (a)	Grant-in-aid for creation of Capital Assets to DCAAI	0.00	5.30	0.00	10.00	0.00	4.28	0.00	5.50	0.00	0.00	0.00	0.00	-	-
2.4 (b)	Grant-in-aid General to DCAAI	0.00	2.95	0.00	2.00	0.00	14.80	0.00	40.00	0.00	45.85	0.00	20.98	-	-
2.4 (c)	Contributions to UNIDO under DCAAI	0.00	0.00	0.00	0.00	0.00	2.16	0.00	0.00	0.00	2.15	0.00	2.15	-	-
<b>3</b>	<b>Development of Capital Goods Sector</b>														
3.1	Development of Advanced Ultra Super-Critical (Adv.-USC) Technology for Thermal Power	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	-	-
3.2	Scheme on “Enhancement of Competiveness in the Indian Capital Goods Sector” (Earlier known as Scheme for enhancement of Competitiveness in Capital Goods Industry)	0.00	0.00	0.00	0.00	2.80	0.00	25.00	0.00	23.00	0.00	0.00	0.00	-	-

(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
3.3	Grant-in-aid to Industry Associations and PSUs for undertaking Promotional Activities	0.00	0.00	0.00	0.08	0.00	0.00	0.00	1.00	0.00	0.80	0.00	0.13	-	-
<b>4</b>	<b>Support to Central Public Sector Enterprises</b>													<b>30.01</b>	<b>2.00</b>
4.1	Grant-in-aid General to HPC (Cachar Paper Mill under NER)	0.00	0.00	47.23	0.00	268.56	0.00	50.00	0.00	83.50	0.00	50.00	0.00	-	-
4.2	Grant to HSL	0.00	1.59	0.00	1.84	0.00	1.96	0.00	2.00	0.00	2.00	0.00	1.00	-	-
4.3	Grant-in-aid General to HEC	0.00	0.00	0.00	182.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Actual Recoveries		-1.07		-5.24		-0.61								
	<b>Revenue (Total)</b>	<b>344.03</b>	<b>23.28</b>	<b>49.32</b>	<b>207.17</b>	<b>517.22</b>	<b>40.60</b>	<b>204.88</b>	<b>70.85</b>	<b>185.42</b>	<b>71.11</b>	<b>101.20</b>	<b>39.66</b>	<b>279.92</b>	<b>112.95</b>
	<b>Capital Section</b>														
4	Support to Central Public Sector Enterprises													20.07	887.05
4.4	Investment in Scooters India Ltd. (SIL)	0.00	0.00	31.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	-



(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
4.5	Investment in Heavy Engineering Ltd. (HEC)	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.01	-
4.6	Investment in HMT Ltd.	0.00	0.00	217.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
4.7	Investment in JPML	0.00	0.00	0.00	0.00	18.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	-
4.8	Investment in Hindustan Salts Limited (HSL)	0.00	0.00	1.50	0.00	5.00	0.00	10.00	0.00	10.00	0.00	5.00	0.00	0.01	-
4.9	Investment in NEPA Ltd.	60.00	0.00	8.10	0.00	50.00	0.00	50.99	0.00	104.58	0.00	50.99	0.00	0.01	-
4.10	Investment in HPC (NPPC under NER)	0.00	0.00	100.00	0.00	0.00	0.00	54.00	0.00	0.00	0.00	0.00	0.00	0.01	-
4.11	Investment in HPF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	
4.12	Implementation of Revival Scheme of PSEs (Lumpsum provision)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.00	0.00	150.00	0.00	0.00	-	150.00

(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
4.13	Implementation of VSS/VRS and Pavement of Statutory Dues (Lumpsum Provision)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	734.00	0.00	294.92	0.00	0.00		736.93
4.14	Loans to Scooters India Ltd. (SIL)	0.00	1.89	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4.15	Loans to Hindustan Cables Ltd. (HCL)	0.00	118.93	0.00	100.26	0.00	92.71	0.00	0.00	0.00	134.56	0.00	134.56		0.01
4.16	Loans to HMT Ltd.	0.00	172.34	11.46	110.64	0.00	279.82	0.00	0.00	0.00	83.61	0.00	83.61		0.01
4.17	Loans to Triveni Structural Ltd. (TSL)	0.00	3.44	0.00	3.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.01
4.18	Loans to Tungbhadra Steel Project Ltd (TSPL)	0.00	2.62	0.00	3.97	0.00	1.73	0.00	0.00	0.00	2.84	0.00	2.84		0.01
4.19	Loans to HPC Ltd. (NPPC & HNL)	0.00	8.24	58.50	83.49	0.00	6.18	0.00	0.00	0.00	10.46	0.00	10.46		0.01

(₹ In crore)

Sl. No.	Demand No. 44-Department of Heavy Industry (Demand no. 51 in 2015-16)	Actual 2012-13		Actual 2013-14		Actual 2014-15		BE 2015-16		RE 2015-16		Actual 2015-16		BE 2016-17	
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
4.20	Loans to NEPA Ltd.	0.00	27.43	0.00	51.25	0.00	34.91	0.00	0.00	0.00	0.00	0.00	0.00		0.01
4.21	Loans to Hindustan Salts Ltd. (HSL)	0.00	0.00	0.50	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.01
4.22	Loans to Hindustan Photo Films (HPF)	0.00	0.00	0.0	27.30	0.00	102.53	0.00	0.00	0.00	23.50	0.00	23.50		0.01
4.23	Loans to HEC	0.00	0.00	0.00	0.00	0.00	47.89	40.00	0.00	0.00	0.00	0.00	0.00	0.01	-
4.24	Loans to TCIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.01
<b>5</b>	<b>Development of Automobile Industry</b>														0.01
5.1	Loans to NATRIP	0.00	0.00	0.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00		0.00
	<b>Total Capital</b>	<b>60.00</b>	<b>334.89</b>	<b>448.96</b>	<b>380.12</b>	<b>73.75</b>	<b>565.77</b>	<b>465.00</b>	<b>884.00</b>	<b>114.58</b>	<b>549.89</b>	<b>55.99</b>	<b>254.97</b>	<b>20.08</b>	<b>887.05</b>
	<b>Total Revenue +Capital</b>	<b>404.03</b>	<b>358.17</b>	<b>498.28</b>	<b>587.19</b>	<b>590.97</b>	<b>606.99</b>	<b>669.88</b>	<b>954.85</b>	<b>300.00</b>	<b>621.00</b>	<b>157.19</b>	<b>294.63</b>	<b>300.00</b>	<b>1000.00</b>

### 5.1.2 Utilization Certificates:

The details of outstanding UCs as on 31.12.2015 are as follows:-

(Rs. in lakhs)

Sr. No.	Name of Ministry sanction in the grants-in-aid	Year of sanction of Grant	Due		Utilization Certificates received		Utilization Certificates Outstanding	
			No.	Amount	No.	Amount	No.	Amount
1	Department of Heavy Industry, Udyog Bhawan, New Delhi	1974-2000	0	0	0	0	0	0
2		2000-01	1	182.5	1	182.5	0	0
3		2001-02	0	0	0	0	0	0
4		2002-03	2	31	2	31	0	0
5		2003-04	6	257	5	237	1	20
6		2004-05	11	4078	11	4078	0	0
7		2005-06	29	23366	29	23366	1	0
8		2006-07	44	236675	43	228675	1	8000
9		2007-08	8	1992.42	8	1992.42	0	0
10		2008-09	23	15800.41	22	12300.41	1	3500
11		2009-10	23	17980.86	22	11980.86	1	6000
12		2010-11	13	31022	13	31022	0	0
13		2011-12	18	37704	17	2166	1	35538
14		2012-13	11	35178	9	974	2	34204
15		2013-14	8	24424.39	5	1359.25	3	23065.14
16		2014-15	21	33494.65	10	8294	11	25200.65
		<b>Total-</b>	<b>218</b>	<b>462183.23</b>	<b>197</b>	<b>326658.44</b>	<b>21*</b>	<b>135527.79</b>

\* Five UCs received amounting to Rs.872.32 crore in respect of NATRIP are provisional since Rs. 99.73 crore is blocked in Letters of Credit (LCs).Final UCs are awaited.

### 5.1.3 Unspent Balance

The status of Unspent Balance as on 31.12.2015 is as follows:-

(Rs. in crore)

Sl. No.	Name of PSU	Unspent Balance as on 31.12.2015	
		Plan	Non-Plan
1.	Cement Corporation of India Ltd.	16.23	0.00
2.	Instrumentation Ltd. Kota	7.64	0.00
3.	Development Council for Auto & Allied Industries	0.00	46.96
4.	BWEL a subsidiary of BBUNL	0.70	0.00
5.	HMT Ltd.	35.20	30.81
6.	Heavy Engg. Corpn. Ltd.	0.00	69.43
7.	Hindustan Cables Ltd.	0.00	15.43
8.	NATRIP	*363.85	0.00
9.	FCRI	3.72	0.00
10.	Scooters India Limited	0.00	0.00
	<b>Total</b>	<b>427.34</b>	<b>162.63</b>
	<b>Grand Total</b>		<b>589.97</b>

\* It includes unspent balance of Rs. 99.73 crore as Letter of Credit (LCs) and Rs. 264.12 crore as interest accrued by NATIS.

## 5.2 DEPARTMENT OF PUBLIC ENTERPRISES

The Year wise Budget Estimate (BE), Revised Estimate (RE) and actual expenditure under Plan and Non- Plan for last five years are shown as under:

(Rs. in crore)

Year	Budget Estimate			Revised Estimate			Expenditure		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
2011-12	11.00	7.69	18.69	10.16	8.29	18.45	8.97	7.94	16.91
2012-13	13.00	8.93	21.93	10.00	8.99	18.99	6.16	8.83	14.99
2013-14	10.00	9.39	19.39	8.25	9.10	17.35	6.42	8.97	15.39
2014-15	9.00	9.82	18.82	5.00	9.00	14.00	4.85	8.90	13.72
2015-16	9.00	10.00	19.00	7.92	10.26	18.18	4.55*	8.55*	13.10*

\*As on 31.01.2016

Details of BE (2015-16), RE (2015-16) and Expenditure under Revenue Section are shown as under:

(Rs. in crore)

REVENUE SECTION	BE 2015-16		RE 2015-16		Expenditure (As on 31.01.2016)	
	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
Sectt. Economic Services	--	10.00	--	10.26	--	8.55
Information Technology	0.40		0.40		0.40	
North East Areas	0.90		0.79		0.34	
<b>Industries - Plan schemes</b>						
1. Counselling, Retraining & Redeployment (CRR)	2.90		2.78		1.52	
2. Research, Development & Consultancies	3.58		2.81		1.33	
3. Skill Development,/ Training Programme	1.22		1.14		0.96	
<b>TOTAL</b>	<b>9.00</b>	<b>10.00</b>	<b>7.92</b>	<b>10.26</b>	<b>4.55</b>	<b>8.55</b>

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## CHAPTER-VI

# REVIEW OF PERFORMANCE OF STATUTORY AND AUTONOMOUS BODIES UNDER THE ADMINISTRATIVE CONTROL OF DEPARTMENT OF HEAVY INDUSTRY

### 6.1.1 The Automotive Research Association of India

The Automotive Research Association of India (ARAI), Pune is a Research organization established in 1966 by the Indian Vehicle and Automotive Ancillary Manufacturers and the Govt. of India under the administrative control of Department of Heavy Industry and recognized by Department of Scientific and Industrial Research for providing R&D, Testing, Certification and homologation services to automotive and allied industries. It is a registered society under the Societies Registration Act XXI of 1860 and major automobile and ancillary manufacturers are its members. It is an ISO 9001-2008, ISO 14001-2004, and OHSAS 18001-2007 certified organization, and is also accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) for its major certification facilities.

### 6.1.2 Following are the R&D projects being implemented at ARAI under Cess funding.

1. Pre-competitive consortium R&D Project on Hybrid Vehicle System, “Development of Offline and Real Time Simulator for Electric/Hybrid Vehicle Systems”.
2. Study and Development of Lightweight forging Process for automotive Components.
3. Material Compatibility and Emission Performance Measurement with Ethanol blended Gas online (E20).
4. Development of Lightweight Bus Prototype with Aluminium (AL) Superstructure for Indian City application, meeting Bus Body Code (AIS:052) requirement
5. Development of Duty Cycle of Public and Goods Transport Vehicle separately (intercity bus and truck application) and arrive at guidelines for estimating vehicle operating cost models with respect to pavement conditions

6. Study of multi-disciplinary approaches/challenges in light weighting/performance improvements with focus on design optimization of components, systems
7. Advanced Low Temperature Diesel Combustion (LTC) System development for improved fuel economy and low cost after treatment to achieve BSV & Beyond emissions
8. Supercharging of Small (Single and Two Cylinder) Diesel Engines
9. Source apportionment of PM 2.5 & PM 10 of NCR for identification of major resources

**Note:** Implementation of Projects at Sr. No. 4 to 9 has commenced in 2015-16.

DHI funded projects being implemented at ARAI under FAME-India Scheme funding.

1. Preparation for Specifications and Finalizing Draft Standards of xEVCharging Stations.
2. Establishment of Testing Infrastructure for Certification Testing of Electric and Hybrid Vehicles (xEVss)

**Note:** Implementation of above two Projects has commenced in 2015-16.



S. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (approx.) till the beginning of the year 2016-17	Total Expenditure Planned during 2016-17	Likely Date of Completion	Related Output and Outcome
1.	Pre-competitive Consortium R&D Project on “Development of Design Guidelines for Light Weight City Bus”	4.84 (Funds released up to Dec’15: Rs.4.84)	March 2014	4.50	0.00	June 2015	Project completed in June 2015 Investigation of structural designs, material selection and manufacturing technologies for aluminum intensive bus body conforming to Bus Body Code: AIS: 052, including joining techniques, crash impact properties and impact of design on ergonomics and aesthetic aspects. The final outcome of the project will be preparation of report with design guidelines.
2	Pre-competitive consortium R&D Project on Hybrid Electric Vehicle System, “Development of Offline and Real Time Simulator for Electric / Hybrid Vehicle Systems”	11.55 (Funds released up to Dec’15: Rs.11.55)	March 2015	10.76	0.80	September 2016	Development of Offline and Real time Simulator for Electric Vehicle/ Hybrid Electric Vehicle (EV/HEV) Sub-systems and extending the knowledge base to academia and industries.

S. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (approx.) till the beginning of the year 2016-17	Total Expenditure Planned during 2016-17	Likely Date of Completion	Related Output and Outcome
3.	Study and development of lightweight forging process for automotive components	3.80 (Funds released up to Dec' 15: Rs.2.00)	March 2017	2.30	1.50	March 2017	Development of: <ul style="list-style-type: none"> <li>• Lightweight forging process for automotive components</li> <li>• Competencies and capabilities for computational methods in forging technology such as inverse analysis approach and simulation</li> <li>• Mathematical tool/software to assist the manufacturing engineers and designers in selecting the suitable forging processes.</li> </ul>
4.	Material compatibility and emission performance measurement with Ethanol blended Gasoline (E20)	2.95 (Funds released up to Dec' 15: Rs.2.95)	Sept. 2015	2.95	0.00	Feb. 2016	<ul style="list-style-type: none"> <li>• Material compatibility study with E20 on component level for 2W &amp; 4W vehicles (both new and old)</li> <li>• Emissions measurement for 2W &amp; 4W with E20</li> <li>• Material compatibility assessment at the end of vehicle ageing for 2W and 4W vehicles (both new and old)</li> </ul>
5.	Development of Lightweight Bus Prototype with aluminium (AL) superstructure for Indian City application, meeting Bus Body Code (AIS:052) requirement	9.50 (Funds released till Dec' 15:Nil)	June 2018	0.10  Project commenced in Jan' 16 and first installment of funds received in Jan' 16	4.90	June 2018	<ul style="list-style-type: none"> <li>• Development of Bus Prototypes with aluminium superstructure for city application along with testing and assessment for bus body code compliance.</li> </ul>

S. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (approx.) till the beginning of the year 2016-17	Total Expenditure Planned during 2016-17	Likely Date of Completion	Related Output and Outcome
6	Development of Duty Cycle of Public and Goods Transport Vehicle separately (intercity) bus and truck application) and arrive at guidelines for estimating vehicle operating cost models with respect to pavement conditions.	3.25  (Funds released till Dec'15:Nil)	June 2017	0.80  Project commenced in Jan'16 and first installment of funds received in Jan'16		June 2017	<ul style="list-style-type: none"> <li>• Development of duty cycle for bus truck</li> <li>• Module to demonstrate effects of pavement condition on vehicle to operating costs.</li> </ul>
7.	Study of multidisciplinary approaches/challenges in light weighting/performance improvements with focus on design optimization of components, systems.	4.00  (Funds released till Dec'15:Nil)	Sept.2017	0.50  Project commenced in Oct'15 and first installment of funds received in Jan'16		Sept.2017	<ul style="list-style-type: none"> <li>• Development of smart structure concepts for meeting the energy efficient targets with light weighting.</li> <li>• Study report &amp; Reference manual generation.</li> <li>• Development of module for showcasing and analyzing the interrelation, interactions of multidisciplinary approaches for light weighting/performance improvement.</li> </ul>

S. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (approx.) till the beginning of the year 2016-17	Total Expenditure Planned during 2016-17	Likely Date of Completion	Related Output and Outcome
8	Advanced Low Temperature Diesel Combustion (LTC) System development for improved fuel economy and low cost after treatment to achieve BS V & beyond emissions	6.15 (Funds released till Dec'15:Nil)	Dec. 2018	0.42  Project commenced in Jan'16 and first installment of funds received in Jan'16		Dec.2018	<ul style="list-style-type: none"> <li>• Development of advanced diesel combustion methodology based on Low Temperature Combustion principle, to meet Euro VI (BS VI) emission norms with cost effective after-treatment and improved fuel economy.</li> <li>• Conversion of a heavy duty engine to demonstrate target engine out emissions, considering least feasible conversion efficiencies of NOx and particulate after-treatments.</li> <li>• Report detailing design modifications, combustion system, experimentations and achieved results.</li> </ul>
9	Supercharging of Small (Single and Two Cylinder) Diesel Engines	1.25 (Funds released till Dec'15:Nil)	June, 2017	0.20  Project commenced in Jan'16 and first installment of funds received in Jan'16		June 2017	<p>Small single Cylinder Diesel Engine:</p> <ul style="list-style-type: none"> <li>• Conversion of existing base engine in to super charged version and improving the performance and meeting the appropriate emission levels after up gradation.</li> </ul> <p>Small Two Cylinder Diesel Engine:</p> <ul style="list-style-type: none"> <li>• Conversion of the base existing engine in to supercharged version retaining/ improving the performance &amp; meeting the appropriate emissions levels after up gradation.</li> </ul>

S. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (approx.) till the beginning of the year 2016-17	Total Expenditure Planned during 2016-17	Likely Date of Completion	Related Output and Outcome
10	Source apportionment of PM 2.5 & PM 10 of NCR for identification of major sources	6.00  (Funds released till Dec'15:Nil)	June, 2017	0.75 Project commenced in Jan'16 and first installment of funds received in Jan'16.		June, 2017	<ul style="list-style-type: none"> <li>• Air quality monitoring for PM2.5 and PM10 at 20 locations in two seasons (summer and winter) in Delhi region (NCR). Monitoring will be carried out for 10 days continuously at each location.</li> <li>• Chemical speciation of PM2.5 and PM10 samples collected for Ions, Elements, Organic carbon, Elemental carbon, and Molecular markers.</li> <li>• Generation of source profiles and emission factors for post-2007 technology vehicles.</li> <li>• Identification of major sources contributing to PM2.5 and PM10 based receptor modeling using Chemical Mass Balance (CMB)/ Principal Component Analysis (factor analysis).</li> <li>• Generation of city-level (2km X 2km grid) baseline emission inventory scenario without and with control options using WRF-CMAQ. Based on the evaluation of alternative scenarios, a plan for air pollution control in NCR will be suggested.</li> </ul>

**Projects under FAME-India Scheme Funding:**

**(Rs in crore)**

S. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (approx.) till the beginning of the year 2016-17	Total Expenditure Planned during 2016-17	Likely Date of Completion	Related Output and Outcome
1	Preparation for Specifications and Finalizing Draft Standards of xEV Charging Stations	0.15  (Funds released up to Dec, 15:0.15)	December 2015	0.15		March 2016	<ul style="list-style-type: none"> <li>• Study of different standards and specifications of xEV charging used globally and evaluating suitability for Indian conditions.</li> <li>• Formulation of finalized draft specifications for AC/DC charging station for xEV applications as guideline Automotive Industry Standard.</li> </ul>
2	Establishment of Testing Infrastructure for Certification Testing of Electric and Hybrid Vehicles (xEVs)	50  (Funds released up to Dec' 15:30.00)	March 2018	30.63		March 2018	<ul style="list-style-type: none"> <li>• Establishing of test facilities for CMVR type approval testing of electric and hybrid electric vehicles consisting of</li> <li>• Phase I: Establishment of test facility of 2,3 Wheelers and Passenger Cars</li> <li>• Phase II: Establishment of test facility for Light Commercial Vehicle (LCV) and Heavy commercial Vehicle (HCV).</li> </ul>

**Review of Past Performances:**

**(Rs. in crore)**

Sl. No.	Particular (Project Name)	2014-15			2015-16		
		Target	Achievement	Reason for Variation	Target	Achievement	Reason for Variation
1	Pre-competitive Consortium R&D Project on “Light Weight City Bus”.	3.17	3.08	Balance funds received only in Oct’14	0.09	-0.25	Project completed in June 2015 Achievement is negative as there has been a reduction in actual outflow due to exchange rate fluctuation.
2	Pre-competitive Consortium R&D Project on Hybrid Electric Vehicle System, “Development of Offline and Real Time Simulator for Electric/ Hybrid Vehicle Systems“.	5.03	5.53		5.53	4.08	Achievement is up to December 2015 Expenditure of 0.5 crore incurred over and above the target in 2014-15.
3	Study and development of lightweight forging process for automotive components.	1.00	0.71	Project commenced in Oct’14	1.29	0.44	Achievement is up to Dec’15
4	Material compatibility and emission performance measurement with Ethanol blended Gasoline (E20).	0.50	1.01		2.45	1.45	Achievement is up to Dec’15 Expenditure of 0.51 crore incurred over and above the target in 2014-15
5	Development of Lightweight Bus Prototype with Aluminium (AL) Superstructure for Indian City application, meeting Bus Body Code (AIS:052) requirement.				0.10		Project has commenced in Jan.16

(Rs. in crore)

Sl. No.	Particular (Project Name)	2014-15			2015-16		
		Target	Achievement	Reason for Variation	Target	Achievement	Reason for Variation
6	Development of Duty Cycle of Public and Goods Transport Vehicle separately (intercity bus and truck application) and arrive at guidelines for estimating vehicle operating cost models with respect to pavement conditions				0.80		Project has commenced in Jan.16
7	Study of multi-disciplinary approaches/challenges in light weighting/performance improvements with focus on design optimization of components, systems.				0.50	0.30	Project commenced in Oct'15  Achievement is up to Dec'15
8	Advanced Low Temperature Diesel Combustion (LTC) System development for improved fuel economy and low cost after treatment to achieve BSV & Beyond emissions.				0.42		Project has commenced in Jan, 16
9	Supercharging of Small (Single and Two Cylinder) Diesel Engines				0.20		Project has commenced in Jan, 16
10	Source apportionment of PM 2.5 & PM 10 of NCR for identification of major sources				0.75		Project has commenced in Jan, 16



**Projects under FAME-India Scheme Funding:**

**(Rs. in crore)**

Sl. No.	Particular (Project Name)	2014-15			2015-16		
		Target	Achievement	Reason for Variation	Target	Achievement	Reason for Variation
1	Preparation for Specifications and Finalizing Draft Standards of xEV Charging Stations.	--	-	-	0.15	0.00	Project commenced in Jul'15 Achievement is up to December 2015.
2	Establishment of Testing Infrastructure for Certification Testing of Electric and Hybrid Vehicles (xEVs).	---	---	---	30.63	2.57	Project commenced in Jul'15. Achievement is up to Dec'15.

## 6.2 FLUID CONTROL REASERCH INSTITUTE (FCRI)

6.2.1 Fluid Control Research Institute (FCRI) is an autonomous institute established by the Govt. of India during 1984 with technical and economic assistance of United Nations Development Programme (UNDP).

The Institute was set up with the broad objectives of Development of Fluid Control Systems, Fluid Control Elements Research, and Development of Human Resources and Training in the field of flow engineering. In order to achieve the above mentioned objectives, the Institute is equipped with laboratories for Water Flow, Air Flow, Oil Flow, Physical Standards, Noise and Vibration, Material Testing, Instrumentation, etc.

FCRI an ISO 9001:2008 certified organisation has also obtained Accreditation from various National and International Agencies like NABL, NMI (Netherlands), Bureau of Indian Standards, Department of Science & Technology, Department of Scientific & Industrial Research, Department of Weights & Measures (Ministry of Civil Supplies), Chief Controller of Explosives, Underwriters Laboratory (USA), etc.

FCRI during the past years has emerged as a Centre of Excellence not only in India but for the whole of Asia. The Institute, one of its kind in South Asia and is on par with similar establishments in the developed countries as proved by the Inter-comparison studies conducted by FCRI with world's leading laboratories. As a premier facility in flow measurement related services and solutions, FCRI has the high-tech infrastructure facilities for industrial precision grade fluid flow measurement and control, testing & calibration of flow products, assessment of quality and reliability of flow measurement system. The Flow Centre at FCRI host traceable International standards for flow measurement, which are the most comprehensive set of flow facilities in the world and provide unique resources for industry in India. The Institute also acts as a national certifying authority for testing and calibration of all kinds of flow product devices, related measuring instruments and for flow measuring systems/electronics and instrumentation. It facilitates acquiring quality conformance as per the norms of ISO 9000/ISO 17025 series and for execution of sponsored R&D projects.

Through in-house R&D efforts, FCRI has successfully developed and transferred technical know-how for a variety of products. More than 1000 organisations from different industries, spread all over India have benefited from FCRI's consultancy services which include design evaluation, quality improvement, establishment of appropriate flow measurement and control technology.

**FLUID CONTROL RESEARCH INSTITUTE (FCRI)**

**(Rs. in crore)**

<b>Sl. No.</b>	<b>Important Projects in hand</b>	<b>Sanctioned Cost</b>	<b>Scheduled Date of Completion</b>	<b>Total Cumulative Expenditure (Approx.) till the Beginning of the Year 2016-2017</b>	<b>Total Exp. planned during 2016-2017</b>	<b>Likely Date of Completion</b>	<b>Related Output and Outcome</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Setting up of Radiator Test Facility as per IS13687	1.25	2 years		1.25	March 2018	To evaluate thermal performance and effectiveness of radiators which in turn will benefit automobile manufacturers.
2	Setting up of Reverberation Chamber with instrumentation for Sound Power Level Measurement as per ISO3741	1.20	1 year & 6 months		1.20	Sept. 2017	To test components and sub-assemblies of auto ancillary units and auto manufacturers for Sound power measurement of engines and ancillaries, transmission loss determination of panels and study of noise emission characteristics of equipments and sub-assemblies.
3	Setting up of LPG Flow and Density Test Facility for Auto LPG Dispensers and Custody Transfer Applications	1.75	2 years	--	1.10	April 2018	To help the auto industry both directly and indirectly through helping to develop products with better accuracy, better reliability and most of all better credibility for Auto LPG users.
4	Setting up of an Oil-Water (Two Phase) Calibration Facility	1.16	2 years	--	0.60	March 2018	Enable FCRI to undertake performance evaluation testing for various kinds of multiphase devices of manufacturing, R & D and end-user industries from hydrocarbon sector and chemical process industry from India and abroad.
5	Flow Measurement and Monitoring Facility at Site	0.35*	1 years		0.35	March 2017	To carryout instantaneous flow measurement on rivers, open channels, streams closed conduits etc. and continuous monitoring and data logging in a distribution system which will benefit Irrigation & water supply departments, hydroelectric power stations, environmental departments etc.

Sl. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (Approx.) till the Beginning of the Year 2016-2017	Total Expenditure planned during 2016-2017	Likely Date of Completion	Related Output and Outcome
6	Setting up of High Vacuum Calibration Testing and R & D Facility.	0.25*	1 years		0.25	March 2017	Creating high vacuum range, maintaining and its measurement to benefit manufacturers of Special materials, aero-space, aviation and aircraft manufacturing industries, Electrical transformer manufacturing, Pharmaceuticals, etc.
7	Inter Laboratory Comparison	1.00*	5 year	0.80	0.20	August 2017	Better credibility of FCRI.
8	Tow Facility for Calibration of Point Velocity Insertion Type Devices.	0.61*	1 year 6 months				Proposed for abandonment. The revised costs make the project non-feasible w.r.t. expected revenues from testing/calibration at the facility.

**FLUID CONTROL RESEARCH INSTITUTE, PALAKKAD (FCRI)**

<b>Sl. No.</b>	<b>Important Projects in hand</b>	<b>Sanctioned Cost</b>	<b>Scheduled Date of Completion</b>	<b>Total Cumulative Expenditure (Approx.) till the Beginning of the Year 2016-2017</b>	<b>Total Exp. planned during 2016-2017</b>	<b>Likely Date of Completion</b>	<b>Related Output and Outcome</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
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3	Setting up of LPG Flow and Density Test Facility for Auto LPG Dispensers and Custody Transfer Applications	1.75	2 years	--	1.10	April 2018	To help the auto industry both directly and indirectly through helping to develop products with better accuracy, better reliability and most of all better credibility for Auto LPG users.

Sl. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (Approx.) till the Beginning of the Year 2016-2017	Total Exp. planned during 2016-2017	Likely Date of Completion	Related Output and Outcome
1	2	3	4	5	6	7	8
4	Setting up of an Oil-Water (Two Phase) Calibration Facility	1.16	2 years	--	0.60	March 2018	Enable FCRI to undertake performance evaluation testing for various kinds of multiphase devices of manufacturing, R & D and end-user industries from hydrocarbon sector and chemical process industry from India and abroad.
5	Flow Measurement and Monitoring Facility at Site	0.35*	1 years		0.35	March 2017	To carryout instantaneous flow measurement on rivers, open channels, streams closed conduits etc. and continuous monitoring and data logging in a distribution system which will benefit Irrigation & water supply departments, hydroelectric power stations, environmental departments etc.

Sl. No.	Important Projects in hand	Sanctioned Cost	Scheduled Date of Completion	Total Cumulative Expenditure (Approx.) till the Beginning of the Year 2016-2017	Total Exp. planned during 2016-2017	Likely Date of Completion	Related Output and Outcome
1	2	3	4	5	6	7	8
6	Setting up of High Vacuum Calibrationm Testing and R & D Facility.	0.25*	1 years		0.25	March 2017	Creating high vacuum range, maintaining and its measurement to benefit manufacturers of Special materials, aero-space, aviation and aircraft manufacturing industries, Electrical transformer manufacturing, Pharmaceuticals, etc.
7	Inter Laboratory Comparison	1.00*	5 year	0.80	0.20	August 2017	Better credibility of FCRI.
8	Tow Facility for Calibration of Point Velocity Insertion Type Devices.	0.61*	1 year 6 months				Proposed for abandonment. The revised costs make the project non-feasible w.r.t. expected revenues from testing/calibration at the facility.

**FLUID CONTROL RESEARCH INSTITUTE, PALAKKAD (FCRI)**

Rs. in Crore

Sl. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reason for variation	Target	Achievement	Reason for Variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
1.	Creation of a High pressure valve test facility to perform valve coefficient, pressure recovery factor (FL) and cavitation testing in control valves	2.00	0.079	There delay in utilization of funds was due to the refloating of a tender for the procurement of High Pressure Pumps and motors, which is one of the critical components of the project.			
2.	Setting up of Tribology Research Laboratory	--	--		2.00	1.22	Since the equipments are of foreign origin, the lead time for procurement & installation is longer.
3.	Establishment of National Knowledge Resource Centre for Flow Product Industries	0.20*	0.03	The works of laying of LAN has been put on hold due to technology transition due to IP V 6 and National Knowledge Network (NKN) and National Digital Library initiatives.	0.20*	0.06	The works of laying of LAN has been put on hold due to technology transition due to IP V6 and National Knowledge Network (NKN) and National Digital Library initiatives. The work will be commenced in Nov/Dec 2016.
4.	Automated Compressed Gas Cylinders test facility as per IS:5844 Inter Laboratory Comparison of Fluid Flow facilities	0.34*	0.23	The offer received to the supply of major component which is a test rig was too high. It could not be accommodated within the allocated budget. Hence the whole tender had to be refloated. Subsequently reasonable offers have been received and are being processed. Order is expected to be released before 31.03.2016.			



Sl. No.	Particulars	2014-15			2015-16		
		Target	Achievement	Reason for variation	Target	Achievement	Reason for Variation
1	2	3(i)	3(ii)	3(iii)	4(i)	4(ii)	4(iii)
5.	Inter Laboratory Comparison of Fluid Flow facilities	0.20*	0.15	The cost of intercomparison equipment purchased was less than the anticipated price.	0.20*	0.50	The cost of intercomparison and transportation was considerably reduced with cost effective selection of reference laboratory and the equipment. However longer size flow meters for intercomparison are under preparatory state and will be initiated soon.
6.	Setting up of an information security system	0.20*	0.15	Time was consumed in evaluation of technologies for video conferencing over broad band/DeiTY guidelines.	0.10*		The revised design for security surveillance is being finalized for initiation of procurement/ installation.
7.	Vibration Sensor Calibration System for Low Frequency Range Calibration of Displacement transducers and Seismic Sensors				0.35*	0.35	
8.	Tow Facility for Calibration of Point Velocity Insertion Type Devices				0.25*		Proposed for abandonment. The revised costs make the project non-feasible w.r.t. expected revenues from testing/calibration at the facility.

\* Cost of the projects at S.No.3,4,5 6,7 and 8 are met from IRG.

### **6.3 NATIONAL AUTOMOTIVE TESTING AND R&D INFRASTRUCTURE PROJECT (NATRIP)**

**6.3.1.** The National Automotive Testing and R&D Infrastructure Project (NATRIP), approved by the Government in 2005, envisages setting up of world-class automotive testing and homologation facilities in India with a total investment of Rs.1718 Crore. The revised cost of the project is Rs. 2288.06 Crore and the revised completion date for NATRIP as 31<sup>st</sup> December, 2017. The project envisages setting up the following broad facilities;-

- (a) A full – fledged testing and homologation centre within the northern hub of automotive industry at Manesar in the State of Haryana
- (b) A full – fledged testing and homologation centre within the southern hub of automotive industry at Oragadam near Chennai in the State of Tamil Nadu
- (c) Up-gradation of existing testing and homologation facilities at Automotive Research Association of India [ARAI], Pune and at Vehicle Research and Development Establishment [VRDE], Ahmednagar;
- (d) World – class proving grounds or testing tracks on around 4000 acres of land will be set up at Indore in the State of Madhya Pradesh;
- (e) National centre for Testing of Tractors and Off – Road Vehicles together with national facility for accident data analysis and specialized driving training in the northern part of the country at Raebareli in the State of Uttar Pradesh;
- (f) National Specialized Hill Area Driving Center as also regional In – Use vehicle management Centre at Dholchora [Silchar] in the State of Assam.

**6.3.2.** Apart from this, NATRIP will also establish Nine Centre’s of Excellences at above mentioned centre’s to further R&D in Automotive Sector. A sum of Rs.1754.29 Crore by way of Grant has so far been released to NATRIP.

#### **National Automotive Testing and R&D Infrastructure Project (NATRIP)**

**6.3.3.** The National Automotive Testing and R&D Infrastructure Project (NATRIP) is the largest and one of the most significant initiatives of the Government of India in automotive sector for creation of “state-of-the-art” automotive testing, homologation, validation and R\*D infrastructure in the Country. The project was sanctioned by Cabinet in the year 2005 at cost Rs.1718.00 Cr. for creation of four new

centre's at Chennai, Silchar, Indore and Raebarli and the up-gradation of three existing centre's at Manesar (ICAT), Pune (ARAI) and Ahmednagar (VRDE). In April 2011, CCEA approved the revised cost of Rs.2288.06 Cr. and the revised completion date for NATRIP as 31<sup>st</sup> December, 2017.

#### 6.3.4. Physical & Financial Progress

- (a) **Physical Progress:** The project is making steady progress with a number of facilities at various centre's being completed. In Silchar, Assam the hill driving track at Dolchora campus has been fully completed and the Jaffirbond campus comprising of the modal Inspection and maintenance lanes, mechanics Institute and Driver training centre have been fully completed. Similarly, the EMC lab at VRDE, Ahmednagar, homologation equipments and Emission Test Cell (ETC 1 & 2) labs at ARAI, Pune, Mileage Accumulation Chassis Dynos (MACD) labs at Chennai and Manesar, FAT2 at ARAI Pune and ICAT, Manesar, PAS4 lab at ICAT, Manesar and GARC, Chennai, CERT1 lab at ICAT, Manesar & GARC Chennai and the Accident Data Analysis Centre (ADAC) at Raebareilly have also been commissioned and are operational. The labs and tracks at Manesar and Chennai are in advanced stage of execution.
- (b) **Financial Progress: Till 31<sup>st</sup> December, 2015 :** - NATIS has received a total fund of Rs.1754.29 Crores by way of Grant-in-Aid and Rs.22.49 Crore as user charges and Rs.1971.09 Crores have been utilized as on 31<sup>st</sup> December, 2015 against the approved project cost of Rs.2288.06 Crores.
- (c) **Allocation of funds under BE 2016-17:** No separate funds has been allocated to NATRIP in the BE 2016-17. Instead funds of Rs. 199.91 crore (Plan) have been allocated to the Umbrella Scheme namely Development of Automobile Industry. After rationalization of schemes, four plan and non-plan sub schemes have been under the Umbrella Scheme namely Development of Automobile Industry.

**Projected Outcome and Past Performance:** The Projected Outcome of 2016-17 and past performance for the year 2014-15 & 2015-16 in respect of NATRIP has been included in the Chapter II and Chapter IV respectively.

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