सत्यमेव जयते

Government of India
Ministry of Chemicals & Fertilizers
Department of Chemicals and Petrochemicals
Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi - 110001
Website : www.chemicals.gov.in
Facilitation Counter : 91-11-23384317

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ANNUAL REPORT
2014-15

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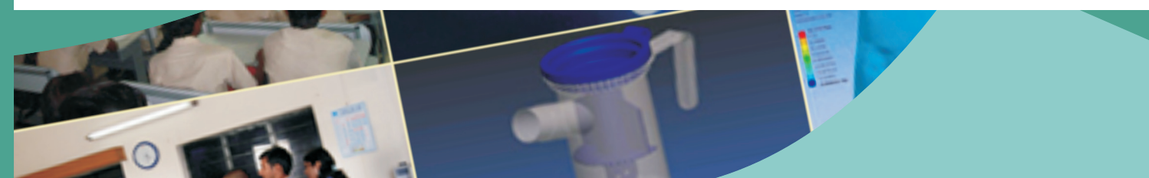

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Chapter - I

INTRODUCTION

1.1 Department of Chemicals and Petrochemicals (DCPC) aims:

i. To formulate and implement policy and programmes for achieving growth and development of the chemical and petrochemical sectors in the country; and

ii. To foster the spirit of public-private partnership for overall development of above-mentioned sectors of industry.

1.2 The Department has the mandate to deal with the following broad subject matters:

i. Insecticides excluding the administration of The Insecticides Act, 1968 (46 of 1968);

ii. Molasses;

iii. Alcohol - Industrial and Potable from the molasses route;

iv. Dyestuffs and Dye Intermediates;

v. All organic and inorganic chemicals, not specifically allotted to any other Ministry or Department;

vi. Planning, Development and control of, and assistance to, all industries being dealt with by the Department;

vii. Bhopal Gas Leak Disaster-Special Laws relating thereto;

viii. Petrochemicals;

ix. Industries relating to production of non-Cellulose Synthetic Fibers (Nylons, Polyesters, Acrylic etc.);

x. Synthetic Rubber; and

xi. Plastics including fabrications of plastic and moulded goods.

1.3 The Department has four major divisions viz. Chemicals, Petrochemicals, Planning & Evaluation (P&E) and Statistics & Monitoring (S&M). The Internal Finance Division is common to the three Departments in the Ministry of Chemicals and Fertilizers. There are three PSUs in the chemical sector namely Hindustan Organic Chemicals Ltd. (HOCL), Hindustan Insecticides Ltd. (HIL) and Hindustan Fluorocarbons Limited (HFL), which is a subsidiary of HOCL, and one PSU in the petrochemical sector viz. Brahmaputra Cracker and Polymer Ltd. (BCPL). The autonomous institutes under this Department are Central Institute of Plastics Engineering and Technology (CIPET) and Institute of Pesticides Formulation and Technology (IPFT).

1.4 Shri Srikant Kumar Jena was the Minister of State (Independent Charge) Chemicals and Fertilizers up to May 2014. Shri Ananth Kumar has been the Minister of Chemicals and Fertilizers since May, 2014. Shri Indrajit Pal retired as Secretary on 30th September 2014. Shri Surjit K. Chaudhary joined as Secretary of the Department on 1st of October, 2014.

1.5 The Department of Chemicals & Petrochemicals continued to identify its objectives and monitor its performance through the Results Framework Document (RFD). The RFD for the year 2014-15 was finalized after detailed deliberations both within the Department and with the Ad-hoc Task Force set up by the Performance Management Division, Cabinet Secretariat and uploaded on the website. Achievements of RFD 2013-14 and composite score are given in Annexure - III. The significant objectives/actions pursued and monitored through the RFD 2013-14 included formulation of a National Policy on Chemicals, organization of India Chem Gujarat, approval and promotion of PCPIRs, implementation of the Assam Gas Cracker Project, development of the plastic sector through Central Institute of Plastics Engineering and Technology (CIPET), implementation of the National Policy on Petrochemicals, coordination of relief and rehabilitation measures for the Bhopal Gas victims, besides certain mandatory indicators such as improving the service delivery of the Department, ensuring compliance with the financial accountability framework, etc.

1.6 The Department's performance was reviewed by the High Power Committee on Government Performance and a composite score of 81.30 was achieved.

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Chapter - II

AN OVERVIEW OF CHEMICAL AND PETROCHEMICAL INDUSTRY

Chemical and Petrochemical Industry:

2.1 The chemical industry is a knowledge intensive as well as capital intensive industry. It is an integral constituent of the growing Indian Industry. It includes basic chemicals and its products, petrochemicals, fertilizers, paints, varnishes, gases, soaps, perfumes and toiletry and pharmaceuticals. The diversification within the chemical industry is large and covers more than eighty thousand commercial products. This Industry occupies a pivotal position in meeting basic needs and improving quality of life. The industry is the main stay of industrial and agricultural development of the country and provides building blocks for several downstream industries, such as textiles, papers, paints, soaps, detergents, pharmaceuticals, varnish etc.

2.2 As per National Industrial Classification (NIC) 2004, Chemicals & Chemical products are covered under the industry division 24. The description of product groups under this division is given below:

Table I: Description of product groups

Class	Description
2411	Manufacture of basic chemicals except fertilizers and nitrogen compounds
2412	Manufacture of fertilizers and nitrogen compounds
2413	Manufacture of plastics in primary forms and of synthetic rubber
2421	Manufacture of pesticides and other agro chemical products
2422	Manufacture of paints, varnishes and similar coatings, printing ink and mastics
2423	Manufacture of pharmaceuticals, medicinal chemicals and botanical products
2424	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
2429	Manufacture of other chemical product not elsewhere classified
2430	Manufacture of man-made fibers [This class includes manufacture of artificial or synthetic filament and non-filament fibers.]

2.3 According to estimates of the Central Statistics Office (CSO), chemicals and chemical products (Industry Division 24 of NIC 2004) accounted for 2.51% of the GDP (at 2004-05 prices) in 2012-13, compared to 2.53% in 2011-12. The share of this sector in the GDP for manufacturing sector at 2004-05 prices was 15.95% during 2012-13, compared to 15.55% in 2011-12. As per quick estimates of Index of Industrial Production (released by the CSO on 12th January 2015), the cumulative growth in the chemicals and chemical products (Industry Division 24 of NIC 2004) during April-November 2014-15 over the corresponding period of 2013-14 has been (-) 1.8 % as compared to 1.1% in the Manufacturing sector. As per the estimates of the CSO, the size of the Indian Chemical industry in terms of value of output in the year 2012-13 was ₹ 7,82,949 crore.

2.4 The production of selected major chemicals and petrochemicals during the years 2010-11 to 2014-15(up to September 2014) is given in Table-II. The production of major chemicals and petrochemicals in 2014-15 (up to September 2014) was 10328 thousand MT, compared to 10402 thousand MT during the same period in 2013-14 implying growth of (-) 0.7%.

Table II: Production of selected major chemicals and petrochemicals

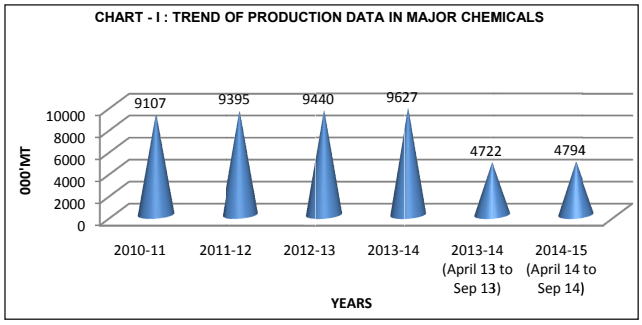
Group	Production / Growth Rate	2010-11	2011-12	2012-13	2013-14	2013-14 (April 13 to Sep 13)	2014-15 (April 14 to Sep 14)
Alkali Chemicals	Production	6271	6478	6487	6481	3207	3279
	Growth Rate (%)	7.6	3.3	0.1	-0.1		2.2
Inorganic Chemicals	Production	898	881	873	892	442	443
	Growth Rate (%)	9.6	-1.9	-0.9	2.2		0.4
Organic Chemicals	Production	1550	1640	1686	1792	850	833
	Growth Rate (%)	7.1	5.8	2.8	6.3		-2.0
Pesticides	Production	143.0	155.2	154.6	178.4	89.4	91.2
	Growth Rate (%)	6.6	8.5	-0.4	15.4		2.0
Dyes& Dyestuffs	Production	244.9	240.9	239.5	283.6	133.7	147.9
	Growth Rate (%)	11.3	-1.6	-0.6	18.4		10.6
Total Major chemicals	Production	9107	9395	9440	9627	4722	4794
	Growth Rate %)	7.8	3.2	0.5	2.0		1.5
Synthetic Fibers	Production	3108	3065	3080	3109	1587	1596
	Growth Rate (%)	9.6	-1.4	0.5	0.9		0.6
Polymers	Production	5292	6211	6424	6784	3395	3182
	Growth Rate (%)	10.5	17.4	3.4	5.6		-6.3

Group	Production / Growth Rate	2010-11	2011-12	2012-13	2013-14	2013-14 (April 13 to Sep 13)	2014-15 (April 14 to Sep 14)
Elastomers (S. Rubber)	Production	105	100	96	105	48	77
	Growth Rate (%)	-0.7	-4.7	-4.2	8.7		59.7
Synth. Detergent Intermediates	Production	638	623	627	597	264	311
	Growth Rate (%)	3.3	-2.4	0.7	-4.8		17.7
Performance Plastics	Production	934	867	894	773	386	368
	Growth Rate (%)	3.1	-7.2	3.1	-13.5		-4.8
Total Basic Major Petrochemicals	Production	10077	10866	11121	11368	5681	5534
	Growth Rate %)	8.9	7.8	2.3	2.2		-2.6
Total Major Chemicals and Petrochemicals	Production	19184	20261	20561	20995	10402	10328
	Growth Rate	8.3	5.6	1.5	2.1		-0.7

Note: Production is aggregated based on Monthly Production Returns from manufacturers under large and medium scale. Product- wise and Group wise details of installed capacity and production for major chemicals and major petrochemicals are given in Annexure-I & Annexure-II respectively.

Chemical Sector- Production Trends

2.5 Three new chemical products have been included in the coverage of the products that are monitored by the Department. These new products are: Hydrogen Peroxide, Calcium Carbonate (included under the group Inorganic Chemicals) and Inorganic Pigments (included under the group Dyes and Pigments). The production data of these new products have been collected on the basis of information supplied by the Central Statistics office (CSO). It may be seen from Table II that the production of Alkali Chemicals accounts for more than 67% of the total production of major chemicals. The production of major chemicals in 2014-15 (up to September 2014) was 4794 thousand MT, compared to 4722 thousand MT during the same period in 2013-14 implying a growth of 1.5%. The trend in the production of selected major chemicals is depicted in Chart I.

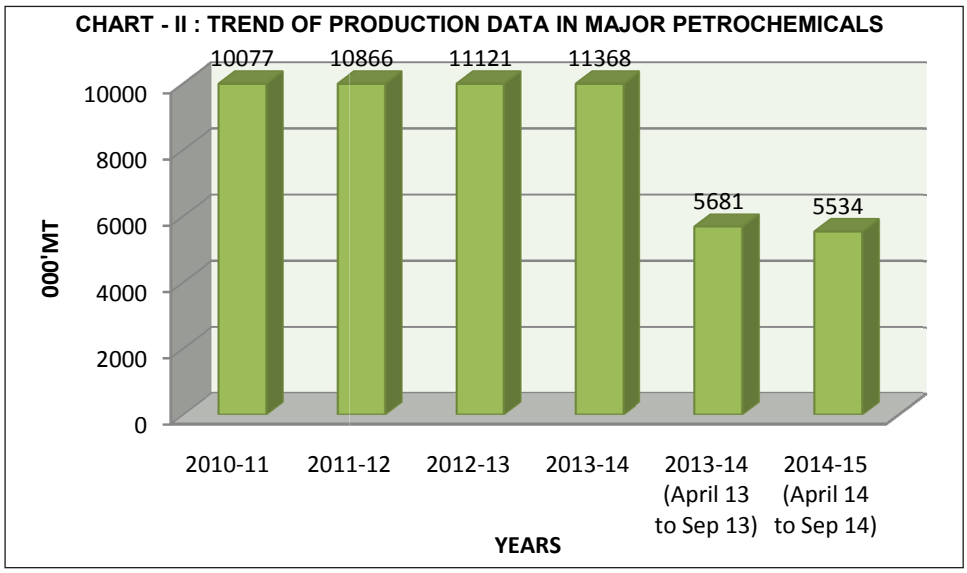


Petrochemical Sector- Production Trends

2.6 Petrochemicals, which comprise of plastic and host of other chemicals, are downstream hydrocarbons derived from crude oil and natural gas. The value additions in the petrochemicals chain offer immense possibilities and cater to the need of textiles and clothing, agriculture, packaging, infrastructure, healthcare, furniture, automobiles, information technology, power, electronics and telecommunication, irrigation, drinking water, construction and a host of other articles of daily and specialized usage amidst other emerging areas.

2.7 There are four naphtha based and three gas based cracker complexes in the country with a combined annual ethylene capacity of 3.78 million MT. Besides, there are five aromatic complexes also with a combined Xylene capacity of 3.5 million MT.

2.8 Three new petrochemical products have been included in the coverage of the products that are monitored by the Department. These new products are Polyester chips or PET chips, Polytetrafluoroethylene (covered under the group Performance Plastics and Polyol (Other-Petro based Chemicals). The production data of these new products have been collected on the basis of information supplied by the CSO. From Table II, it may be seen that the production of polymers account for around 60% of the total production of basic major petrochemicals. The production of basic major petrochemicals in 2014-15 (up to September 2014) was 5534 thousand MT, compared to 5681 thousand MT during the same period in 2013-14 implying a growth of (-)2.6%.The trend in the production of selected major petrochemicals has been depicted in Chart II.



Index of Industrial Production

2.9 The weight of chemical and chemical products (industry division 24 of NIC 2004) is 100.59 out of 1000 in the Index of Industrial Production (Base Year: 2004-05). The General Index for the month of September 2014 stands at 172.2, which is 2.8% higher as compared to the level in the month of September 2013. The cumulative growth for the period April-September 2014-15 over the corresponding period of the previous year stands at 3.0%. The Index of Industrial Production for the Manufacturing sector for the month of September 2014 stands at 182.3, which is 2.9% higher as compared to the level in the month of September 2013, whereas the Index of Industrial Production for the Chemicals and Chemical products for the month of September 2014 stands at 134.5 which is 4.6% lower as compared to the level in the month of September 2013. The cumulative growth in manufacturing sector during April-September 2014-15 over the corresponding period of 2013-14 has been 2.2%, as against the growth (-) 0.6% in respect of Chemical & Chemical products. The month wise Index of Industrial production during 2013-14 and 2014-15 (up to November 2014) is depicted in Table III.

Table III: Index of Industrial Production

(Base: 2004-05 =100)

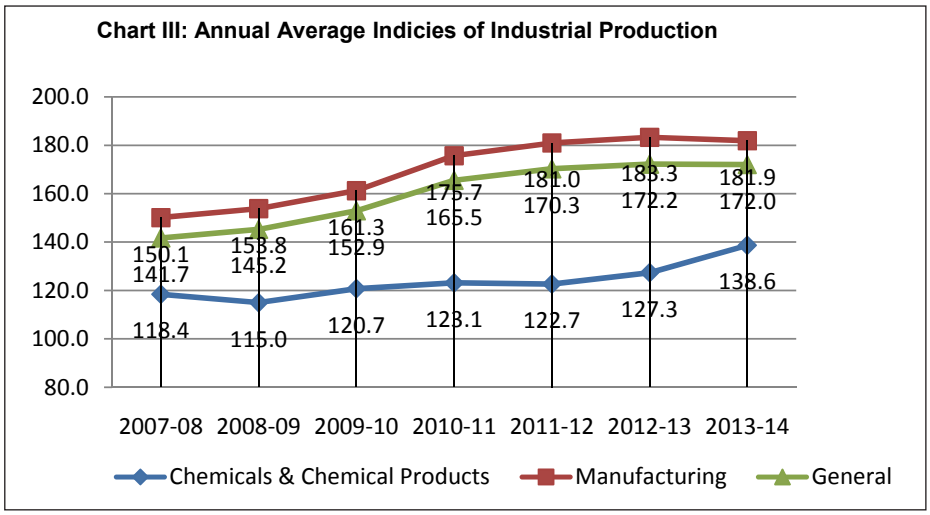
Period	Chemicals and chemical products	Manufacturing	General
Weight	**100.59**	**755.27**	**1000**
Apr-13	134.1	176.1	166.5
May-13	134.8	173.3	166.0
Jun-13	136.8	175.0	164.9
Jul-13	137.8	182.7	171.4
Aug-13	145.1	175.4	165.4
Sep-13	141.0	177.1	167.5
Oct-13	139.0	180.1	169.6
Nov-13	140.9	171.8	163.6
Dec-13	148.2	189.0	179.5
Jan-14	143.7	194.1	184.0
Feb-14	128.1	183.3	172.7
Mar-14	134.2	204.7	193.3
Apr-14	127.9	181.4	172.7
May-14	140.0	183.5	175.3
Jun-14	140.7	180.1	172.0
Jul-14	145.7	182.2	173.0
Aug-14	136.2	173.4	166.2
Sep-14	134.5	182.3	172.2
Oct-14	125.3	166.7	162.5
Nov-14	138.9	177.0	169.8

2.10 The behavior of IIP of chemicals and chemical products vis-à-vis General IIP and IIP in respect of manufacturing from 2007-08 to 2013-14 is depicted in Table IV and Chart III.

Table IV: Annual Average (April – March) Indices of Industrial Production

(Base: 2004-05 =100)

Particulars	**Weight**	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Chemicals & Chemical Products	**100.59**	118.4	115.0	120.7	123.1	122.7	127.3	138.6
Manufacturing	**755.27**	150.1	153.8	161.3	175.7	181.0	183.3	181.9
General	**1000**	141.7	145.2	152.9	165.5	170.3	172.2	172.0



Source: Ministry of Statistics and Programme Implementation. Data accessed from http://mospi.nic.in/Mospi_New/upload/iip/IIP_timeseries_2004_05.htm as on 15.1.2015.

Whole Sale Price Index (WPI)

2.11. The annual rate of inflation based on monthly WPI (Base Year: 2004-05) released by the Office of the Economic Advisor, for 'all commodities' stood at 0.00% for the month of November 2014 over November 2013. The index for 'Food Articles' group rose by 0.63%, for 'Manufactured Products' by 2.04 % and for 'Chemicals & Chemical products' by 2.68% during the same period. The weight of Chemicals & Chemical products in the WPI is 12.02 out of all commodities weight of 100. The month-wise Index of WPI from April 2013 to November 2014 is given in Table V.

Table V: Whole Sale Price Index

(Base Year: 2004-05 =100)

Month	All commodities	Food Articles	Manufactured Products	Chemicals & Chemical products
April-13	171.30	219.80	149.10	146.20
May-13	171.40	223.10	149.30	145.90
June-13	173.20	230.90	149.50	146.20
July-13	175.50	238.50	149.90	147.40
August-13	179.00	252.40	150.60	148.10
September-13	180.70	252.90	151.50	149.00
October-13	180.70	251.70	152.10	149.10
November-13	181.50	255.90	152.30	149.20
December-13	179.60	240.20	152.50	149.90
January-14	179.10	233.70	152.90	150.80
February-14	178.90	232.50	153.60	151.80
March-14	179.80	234.60	154.20	152.60
April-14	180.80	239.00	154.60	153.20
May-14	182.00	244.60	155.10	153.10
June-14	183.00	250.10	155.40	153.30
July-14	185.00	258.70	156.00	154.00
August-14	185.90	265.30	156.10	154.10
September-14	185.00	262.20	156.00	153.60
October-14	183.90	258.50	155.80	153.70
November-14	181.50	257.50	155.40	153.20

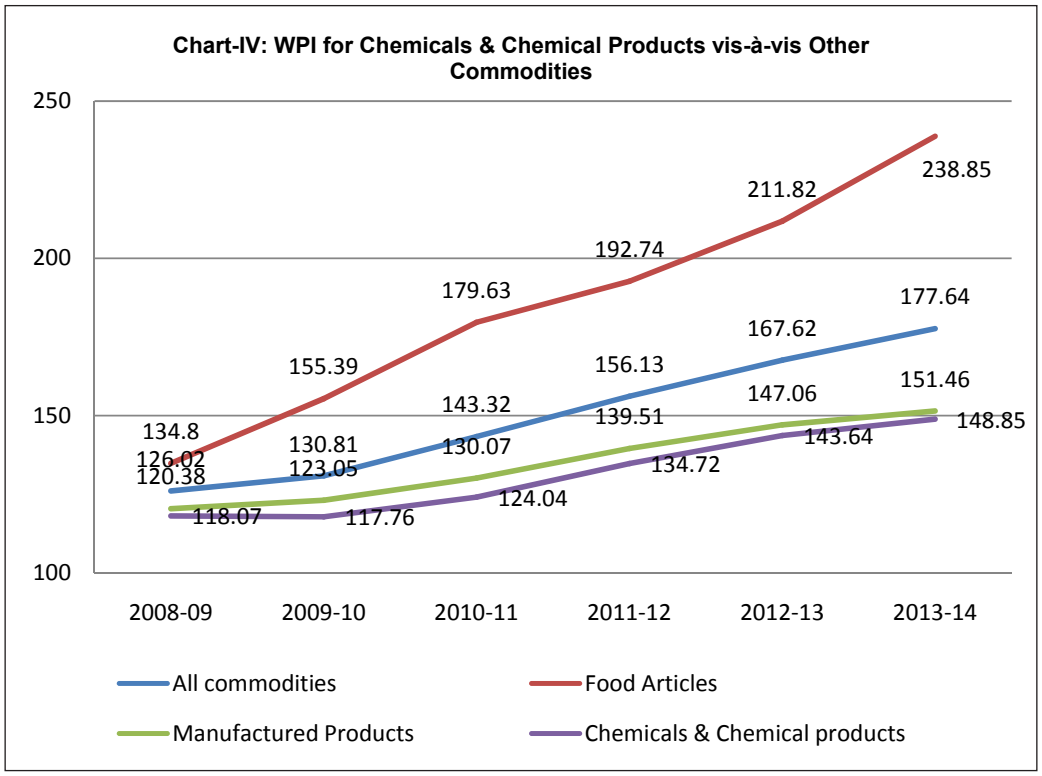
Source: Office of the Economic Advisor, Ministry of Commerce & Industry, Data accessed on 16th December 2014 from http://www.eaindustry.nic.in/

2.12 Table VI and Chart IV below show the WPI for chemicals & chemical products vis-à-vis all commodities, food articles and manufactured products during the years 2008-09 to 2013-14.

Table VI: Annual Average (April - March) Indices of Wholesale Price

(Base Year : 2004-05 = 100)

Description	Weight	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
All commodities	100	126.02	130.81	143.32	156.13	167.62	177.64
Food Articles	14.34	134.8	155.39	179.63	192.74	211.82	238.85
Manufactured Products	64.97	120.38	123.05	130.07	139.51	147.06	151.46
Chemicals & Chemical products	12.02	118.07	117.76	124.04	134.72	143.64	148.85



2.13 Table VII shows WPI of different commodity groups within Chemicals & Chemical products group during the years 2008-09 to 2013-14.

Table VII: WPI of Chemicals & Chemical products

Description	WEIGHT	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Chemicals & Chemical Products	12.02	118.1	117.8	124.0	134.7	143.60	148.9
Basic Inorganic Chemicals	1.19	126.2	125.0	126.3	138.2	147.80	150.6
Basic Organic Chemicals	1.95	118.0	115.7	124.4	135.0	140.30	147.5
Fertilizers	2.66	106.8	108.2	116.8	132.6	149.00	152.3
Pesticides	0.48	110.5	110.6	113.6	114.9	121.20	125.9
Paints, Varnishes & Lacquers	0.53	117.6	117.5	122.6	128.5	143.60	147.6
Dyestuffs & Indigo	0.56	115.5	111.9	116.3	122.5	126.90	132.6
Drugs & Medicines	0.46	111.4	112.7	115.4	119.6	124.20	126.8
Perfumes, Cosmetics, Toiletries Etc	1.13	129.2	134.8	138.5	145.3	151.90	157.3
Turpentine, Plastic Chemicals	0.59	116.9	117.4	123.4	136.1	140.00	147.6
Polymers Including Synthetic Rubber	0.97	119.6	116.3	123.4	130.4	135.30	142.8
Petrochemical Intermediates	0.87	133.5	127.7	137.4	156.2	164.20	170.4
Matches, Explosives & Other Chemicals	0.63	121.6	123.8	128.7	135.5	142.60	149.8

Source: Office of the Economic Advisor, Ministry of Commerce & Industry, Data accessed on 16th December 2014 from http://www.eaindustry.nic.in/

INTERNATIONAL TRADE

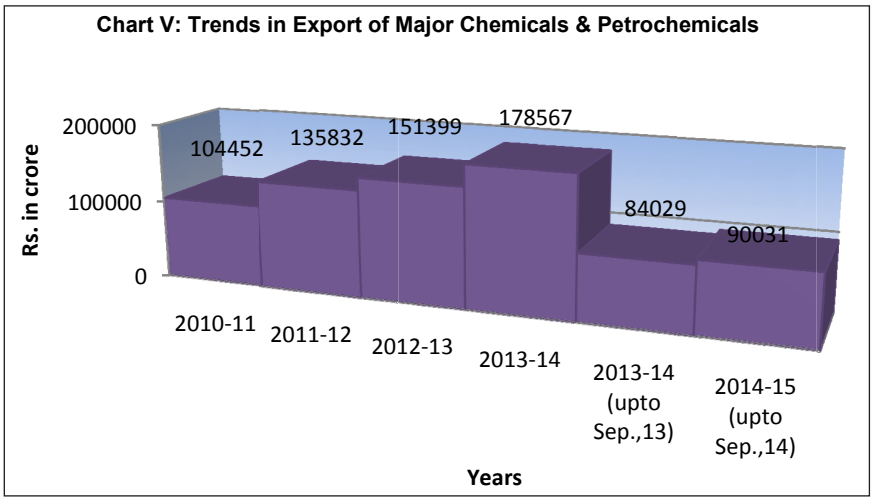
2.14 Trends in exports and imports of Chemicals and Chemical Products (excluding Pharmaceutical Products and Fertilizers) during 2010-11 to 2014-15 (up to September 2014) are given in Table VIII and Chart V and Chart VI.

Table VIII: Exports and Imports– Chemicals and Chemical Products (excluding Pharmaceutical Products and Fertilizers)

A. Exports

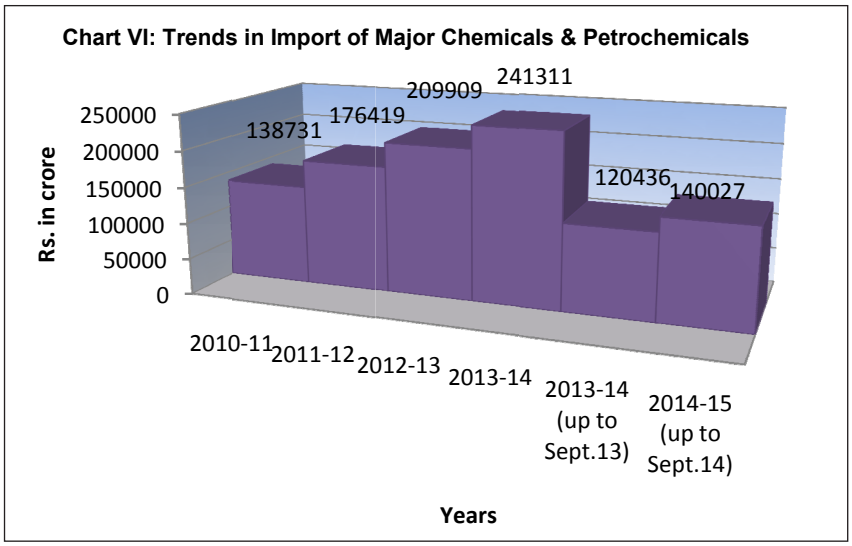
(In ₹ crore)

HS Code	Commodity	2010-11	2011-12	2012-13	2013-14	2013-14 (upto Sep.,13)	2014-15 (upto Sep.,14)
	Total National Exports	**1136964**	**1465959**	**1634319**	**1905011**	**910883**	**964547**
28	Inorganic Chemicals	8564	8689	7176	8258	3877	4237
29	Organic Chemicals	41709	56659	66435	73565	35036	36301
32	Tanning or Dyeing	7720	9336	11372	15455	6914	9333
38	Miscellaneous Chemical Products.	9409	12485	15545	18694	8902	9587
39	Plastic and Articles thereof.	18150	25312	28012	34154	15948	16607
4002	Synthetic Rubber and Factice	175	286	181	245	109	173
54	Man-Made Filaments.	10469	12466	12112	15575	7291	7411
55	Man-Made Staple Fibres.	8256	10599	10565	12621	5951	6382
A:Total Chemicals and Chemical Products		104452	135832	151399	178567	84029	90031
% share in total export		9.2	9.3	9.3	9.4	9.2	9.3



B. Imports (In ₹ crore)

HS Code	Commodity	2010-11	2011-12	2012-13	2013-14	2013-14 (up to Sept.13)	2014-15 (up to Sept.14)
	Total National Imports of which	**1683467**	**2345463**	**2669162**	**2715434**	**1355762**	**1407894**
28	Inorganic Chemicals	17236	27792	28770	29063	14802	15196
29	Organic Chemicals	57550	69144	85439	103157	50922	59240
32	Tanning or Dyeing	5434	7097	8004	9254	4597	5171
38	Miscellaneous Chemical Products	13935	17855	20650	23107	11838	14019
39	Plastic and Articles thereof	34477	40578	52283	61072	30213	37642
4002	Synthetic Rubber And Factice	5141	7731	7562	7339	3816	3701
54	Man-Made Filaments	3024	3725	4149	4597	2289	2543
55	Man-Made Staple Fibres.	1935	2498	3052	3722	1959	2516
B:Total Chemicals and Chemical Products		138731	176419	209909	241311	120436	140027
% share in total import		8.2	7.5	7.9	8.9	8.9	9.9



2.15 The imports of chemicals and products (excluding Pharmaceutical Products and Fertilizers) contributed 9.9% of total imports in 2014-15 (Up to September 2014) compared to 8.9% in 2013-14 (Up to September 2013) whereas the exports contributed 9.3% of total exports in 2014-15 (Up to September 2014), compared to 9.2% in 2013-14(Up to September 2013).

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Chapter - III

PLAN SCHEMES

3.1 In view of the delicensed and deregulated nature of the chemical and petrochemical sectors, public sector investment through Plan schemes is limited. The major Plan scheme being implemented, besides the releases made to the PSUs and autonomous institutions, is the Assam Gas Cracker Project (AGCP). The revised cost of the project is ₹ 8,920 crore, comprising capital subsidy of ₹ 4,690 crore, debt of ₹ 2,961 crore and equity of ₹ 1,269 crore. The project is nearing completion. The Board of BCPL has approved to submit a proposal for enhancement of the capital cost to ₹ 9,833.52 crore and commissioning in June, 2015. They have also sought feedstock subsidy on natural gas of ₹ 7,775.71 crore (NPV is ₹ 3,447. 19 crore) for 15 years of plant operation and revenue subsidy of ₹ 240.86 crore to fund the cash deficit during the initial 3 years. The project is expected to lead to substantial employment generation, as a result of investments in downstream plastic processing industries and allied activities. The project is of economic significance for the State of Assam and North Eastern Region.

3.2 Scheme-wise Plan Outlay (BE / RE for 2014-15 and BE for 2015-16), Expenditure for 2013-14 and 2014-15 (Plan)and Expenditure 2013-14, RE and Exp. 2014-15 & BE 2015-16 (Non-Plan)are given in Tables- IX and X respectively below:

Table IX: Scheme-wise Plan Outlay

(₹ crore)

Sr. No.	Name of Scheme	BE 2014-15	RE 2014-15	BE 2015-16
I	**Project Based Support to PSUs**	**35.51**	**35.51**	**32.00**
1.1	Hindustan Organic Chemicals Ltd. (HOCL)	0.01	0.01	17.00
1.2	Hindustan Insecticides LTD. (HIL)	15.00	15.00	10.00
1.3	Hindustan fluorocarbons LTD (HFL)	20.50	20.50	5.00
II	Support to Autonomous Bodies	107.98	102.54	93.68
2.1	Central Institute of Plastic Engineering &Technology (CIPET)	102.98	100.85	92.68

Sr. No.	Name of Scheme	BE 2014-15	RE 2014-15	BE 2015-16
2.2	Institute of Pesticides Formulation Technology (IPFT)	5.00	1.69	1.00
III	Other Ongoing Schemes	63.51	34.95	62.32
3.1	Assam Gas Cracker Project	0.01	0.01	0.01
3.2	Chemical Promotion & Development scheme (CPDS)	4.30	4.00	1.90
3.3	Chemical Weapons Convention (CWC)	1.20	1.20	1.00
3.4	IT/Sectt.	0.50	0.70	1.00
3.5	Other New Schemes of Petrochemicals	57.50	29.04	58.41
	Total	**207.00**	**173.00**	**188.00**

Table- X : Expenditure 2013-14 and 2014-15 (Plan)

(₹ crore)

Sr. No.	Name of Scheme	Exp. 2013-14	% of Exp. w.r.t. RE	Exp. 2014-15 as on 31-12-14	% of Exp. w.r.t. RE
1	Secretariat	0.7	100	0.48	68.57
2	New Schemes of Petrochemicals	31.34	79.34	4.59	15.80
3	Assam Gas Cracker Project	976.96	100.00	0.00	0.00
4	CPDS	2.83	95.33	1.70	42.50
5	CWC	0.96	64.00	0.46	38.33
6	IPFT	4.34	100.00	0.88	52.07
7	CIPET	140.96	100.00	83.52	82.82
8	HIL	0.00	0.00	15.00	100.00
9	HOCL	0.00	0.00	0.00	0.00
10	HFL	0.00	0.00	16.80	81.95
	Total	**1158.09**	**98.56**	**123.43**	**71.34**

Table XI: Expenditure 2013-14, RE and Exp. 2014-15& BE 2015-16 (Non-Plan)

(₹ crore)

Sl. No.	Name of the Schemes	Exp. 2013-14	% of Exp. w.r.t. RE	Exp. 2014-15 (upto 31.12.2014)	% of Exp. w.r.t. RE	BE 2015-16
1.	Secretariat	13.91	87.65	10.90	72.37	15.79
2.	CIPET	0.00	0.00	0.00	0.00	0.00
3.	Assam Gas Cracker Project	0.00	0.00	0.00	0.00	0.01
4.	Bhopal Gas Leak Disaster	33.51	71.93	20.08	59.79	47.64
5.	CWC	0.00	0.00	0.00	0.00	0.01
6.	IPFT	3.08	81.05	0.72	17.69	3.70
7.	PCL	0.00	0.00	0.00	0.00	0.00
8.	HIL	0.00	0.00	0.00	0.00	0.01
9.	HOCL	0.00	0.00	0.00	0.00	0.01
10.	HFL			0.00	0.00	0.01
	Total	50.50	76.19	31.70	60.11	67.18

* BE: Budget Estimates : 2014-15 Total Non-Plan – ₹ 63.68 crore
RE: Revised Estimates:2014-15 Total Non-Plan -₹ 52.73 crore

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Chapter- 4

PETROLEUM, CHEMICALS &PETROCHEMICAL INVESTMENT REGIONS (PCPIRs)

Background

4.1 Government of India has approved four Petroleum, Chemical and Petrochemical Investment Regions (PCPIRs) in the States of Andhra Pradesh (Vishakhapatnam), Gujarat (Dahej), Odisha (Paradeep) and Tamil Nadu (Cuddalore and Naghapattinam) to promote investment and industrial development in these sectors. The PCPIR is envisioned to reap the benefits of co-siting, networking and greater efficiencies through use of common infrastructure and support services. Each PCPIR is a specifically delineated region having an area not less than 250 sq.km, wherein 40% of the area has to be for processing activities.

4.2 The concept of PCPIR is a cluster approach to promote the Petroleum, Chemical and Petrochemical sectors in an integrated and environment friendly manner, on a large scale. Government of India formulated the PCPIR policy in April 2007 to give a boost to this sector.

4.3 The State Governments carry out Environment Impact Assessment (EIA) and lead the project implementation. Government of India is ensuring infrastructure development in the PCPIRs through highways, rail links, ports, airports etc. through Public Private Partnership (PPP) projects to the extent possible. The Central Government also provides necessary funding to make such projects viable, called Viability Gap Funding (VGF), as well as budget support for creation of these linkages.

4.4 The policy provides that each PCPIR would have a refinery / petrochemical feedstock company as an Anchor Tenant.

4.5 The PCPIRs have been promoted both at the domestic and international levels along with the State Governments, Anchor Tenants and committed investors through industry interactions, road shows, exhibitions, seminars, conferences etc.

4.6 Once fully established, these PCPIRs are expected to attract investment of ₹ 7,62,894 crore approximately. As on 31.12.2014 investments worth ₹ 1,59,443 crore approximately have been made in these regions. Infrastructure

with investment of ₹ 53,468.7 crore approximately is expected to be created in the PCPIRs, out of which the contribution of Government of India would be ₹ 4646.30 crore. The PCPIR wise details of investment are given below in Table-XII. The four PCPIRs are expected to generate employment for around 33.96 lakh persons. As on 31.12.2014 around 2.23 lakh persons have been employed in direct and indirect activities related to PCPIRs.

4.7 The massive scale of infrastructure development, industrial development and employment generation in the PCPIRs offer tremendous opportunities for domestic as well as foreign investments. Following advantages and opportunities are offered in the PCPIRs:

- Strategic locations at ports for domestic and global markets.
- Availability of adequate land with Government agencies and developers for allotment to industries.
- Excellent connectivity by road, train, airports.
- Institutional mechanism for management and implementation.
- Deregulated industry and promotion of 100% FDI.
- Ready availability of technical and skilled manpower.
- Opportunities for investment window in infrastructure through PPP mode.
- Forming of consortium with Indian partners e.g. refinery/cracker complex, large industrial units, etc.
- Investments in utilities and services including Waste Management, Housing, Hospitals, Education, Training etc.

4.8 In order to expedite the implementation of PCPIRs, Minister, Chemicals and Fertilizers reviewed the progress of Andhra Pradesh and Odisha PCPIRs in July 2014 and formed a Steering Committee under the chairmanship of Secretary, Department of Chemicals and Petrochemicals and comprising representatives from Central Ministries/ Departments, State Governments concerned, Anchor Tenants and Industry Associations. The Committee will coordinate and facilitate to expedite infrastructure projects, anchor investments and provision of building blocks for downstream industry, common utility projects, social infrastructure etc.

4.9 A snapshot of the four PCPIRs is given below:

Table XII: PCPIR Snapshot

Indicator	Gujarat	Andhra Pradesh	Odisha	Tamil Nadu
Location/ Region	Dahej, Bharuch	Vishakhapatnam – Kakinada	Paradeep	Cuddalore-Nagapattinam
Date of Approval	Feb, 2009	Feb, 2009	Dec, 2010	July,2012
Date of MoA	07.01.2010	01.10.2009	03.11.2011	20.02.2014
Total Area (Sq. kms.)	453.00	603.58	284.15	256.83
Processing Area (Sq.kms.)	248.00	270.00	123.00	104.00
Anchor Tenant	ONGC Petroleum addition Limited	Hindustan Petroleum Corporation Ltd. (HPCL)	Indian Oil Corporation Ltd. (IOCL)	Nagarjuna Oil Corporation Ltd. (NOCL)
Refinery / Cracker capacity in MMTPA	Cracker: Ethylene: 1.1 Propylene: 0.6	9.3 to 15 (expansion of existing refinery) 15 (Greenfield).	15 (Greenfield refinery).	12 (Refinery).
Anchor Project Status	Expected Commissioning: June, 2015	Anchor Tenant for Greenfield project yet to come on board.	Expected Commissioning: June, 2015	Construction work, stalled since 2011, yet to restart.
Total amount of infrastructure projects approved (₹ crore)*	7749.70	19031.00	13634.00	13354.00
GoI share in form of VGF (₹ crore)*	80.50	1206.80	716.00	1143.00 1500 .00 (budgetary support)
Proposed Investment (₹ Crore)*	50,000	3,43,000	2,77,734	92,160
Investment made (₹ Crore)	69,621	37,010	45,000	7,812
Projected employment (number)*	8,00,000	11,98,000	6,48,000	7,50,000
Employment generated (number)	78,000	93,500	38,000	13,950
Status of Master Planning notification	Development Plan sanctioned	Revised Draft final Master Plan, addressing objections from public, is being submitted to the State Government.	Preparation of Master Plan is in process.	Will be taken up after formation of PCPIR Management Board.
Status of EIA	CRZ Mapping and Land use classification in process. Draft final EIA to be submitted to MoEF.	EMP / EIA study submitted to APPCB. Public hearing to be conducted.	Proposal from EPTRI /NIO Goa is under evaluation by IDCO.	Will be taken up after formation of PCPIR Management Board.

*At approval stage of the Projects.

4.10 Status of Implementation of PCPIRs as of 31.12.2014

4.10.1 Gujarat PCPIR:

- Draft Development Plan was sanctioned by the State Government in 2012 and at present 2 Town Planning (TP) schemes are under implementation.
- The Gujarat Infrastructure Development Corporation (GIDC) has spent ₹ 10,994 crore for provision of infrastructure in the PCPIR.
- Additional expenditure of ₹ 12,000 crore by State Government is under way on infrastructure development like road, ports, water supply etc.
- The important infrastructure activities to be undertaken in near future includes construction of roads with a proposed investment of ₹ 270 crore, construction of Common Effluent Treatment Plant (CETP) of 40 MLD capacity, completion of Water Supply Schemes, construction of setting up of a sub-station of 220 KV at Suva at Dahej-II.
- ONGC Petro additions Ltd. (OPaL), the Anchor Tenant, is setting up a dual feed cracker complex (naphtha to be supplied from ONGC and C2 / C3 to be extracted from imported LNG) at Dahej SEZ with a production capacity of 1.1 million ton / annum (MMTPA) ethylene and 0.6 MMTPA of propylene, along with the matching downstream polymer capacities (polyethylene and polypropylene). The total proposed investment is ₹ 21,396 crore. The overall progress of the OPaL's project as of 31st December, 2014 was around 93% and the project is scheduled for commissioning by June 2015.
- The products of OPaL's project will be HDPE, LLDPE, Polypropylene, Benzene, Butadiene, PyGas and Carbon Black Feedstock (CBFS).
- The Environmental Impact Assessment (EIA) process is in final stage based on the final Terms of Reference (ToR) approved by Expert Appraisal Committee (EAC) of MoEF in September 2013. Final draft report has been submitted to GPCB on 16.05.2014 for the public hearing. CRZ Mapping and Land use classification is in process and draft final EIA is expected to be submitted to MoEF by the end of 2014-15.
- As a follow up of independent evaluation of the implementation of Gujarat PCPIR, an activity wise action plan for Dahej PCPIR has been finalized after discussions among Department of Chemicals and Petrochemicals, GIDC, OPaL and others on 22nd September, 2014 at Gandhinagar, Gujarat.
- TERI conducted the socio-economic studies for all 44 villages & work has been completed. No relocation of any of the villages is proposed. A buffer zone of 300 to 500 meters has been provided from the outer boundary of the village site. TERI has submitted a detailed report about the gap analysis of the primary livelihood requirements. A number of Initiatives have been under taken by Gujarat PCPIR Welfare Society based on the final report submitted by TERI.

- A PCPIR Welfare Society, registered under the Societies Registration Act, has been formed to look into welfare activities in the PCPIR. GIDC charges an additional amount of ₹ 15 per sq.m. of industrial plots allotted to fund such activities. An amount of ₹ 50.00 crore has so far been collected. PCPIR Society Sponsors more than 350 land losers inform of ₹ 1500/- monthly stipend & tuition fees of ₹ 15,700 per year for technical training through 3 Skill–Upgradation centers. Society has sanctioned ₹ 1.7 crore for building toilets in 16 PCPIR villages of Vagara Taluka. GIDC has developed basic infrastructure such as internal roads & water supply in 10 villages and GIDC has spent ₹ 24.00 crore. GIDC is operating a water supply scheme set up at a cost of ₹ 8 crore to supply potable water to 5 villages. Model Anganwadi-cum-livelihood centers to be built by GIDC in all the 44 villages of the PCPIR.

4.10.2 Andhra Pradesh PCPIR

- Draft Final Master Plan has been submitted to Government of Andhra Pradesh on 23.05.2014 for approval. As advised by the Government of A.P; VK PCPIR SDA has constituted an expert committee for scrutiny of the objections / suggestions received on draft Master Plan. The SDA has submitted comments on each of the objections to the State Government for further instructions/ approval.
- EPTRI has completed EMP and EIA study and submitted draft EIA to VK-PCPIR SDA on 22.10.2014 and the same was submitted to AP Pollution Control Board on 03.11.2014. Public hearing is to be conducted.
- AP PCPIR covers 6 existing SEZs.
- In 2009 Government of India had approved financial support (Viability Gap Funding or VGF) of ₹ 1206.80 crore for infrastructure projects in PPP mode. Revised proposals for Transportation sector, Waste water infrastructure and Solid Waste management for Viability Gap Funding were submitted to Department of Economic Affairs (DEA), Ministry of Finance in October 2013 for ₹1773.57 crore, which have been approved 'in principle'. Preparation of Detailed Project Report (DPR) for PCPIR Expressway has been initiated by VK-PCPIR SDA. State Government will submit the DPRs for approval of MEA.
- Hindustan Petroleum Corporation Limited (HPCL), the Anchor Tenant, is in the process of expansion of existing refinery from 9.3 MMTPA to 15 MMTPA. In order to set up a greenfield refinery-cum-petrochemical complex of 15 MMPTA capacity, efforts are being made to identify partners/ investors with HPCL.
- A LNG terminal is proposed near Gangavaram port by Petronet and at Kakinada port by GAIL and Shell.
- Currently Chennai – Howrah trunk line of South Central Railways (SCR) is serving the PCPIR area. Following railway projects are at planning stage:

a) Rail link from Kakinada port to SCR via Kakinada SEZ (38 km),
b) Connecting APSEZ to Gangavaram Port (26 km),
c) Connecting SCR trunk line to AP PCPIR (7.15 km),
d) Rail Freight Station with CFSs/ICDs, warehouses.
e) Railway Infrastructure Technical and Economic Services (RITES) has conducted Feasibility Study, and Detailed Feasibility Study for DPR is in progress for the projects mentioned at 'a' and 'b' above. The outlay for these projects is ₹ 1,610 crore.

- A Comprehensive study on Rail network in PCPIR through RITES for the following projects is proposed.
  a) Branch line from Duvvada to Devada
  b) Railway line along the proposed PCPIR expressway connecting all the three clusters.
- Construction of marine outfall in APSEZ, Visakhapatnam which is a part of PCPIR, is under progress.
- Tendering is in progress for construction of 1.50 MLD CETP at APSEZ, Visakhapatnam under EPC mode.

4.10.3 Odisha PCPIR

- Paradeep Investment Region Development Ltd. (PIRDL), an SPV for implementation of Infrastructure Projects within the Paradeep PCPIR, has been formed by IDCO. The SPV has been operationalized. Master Plan is under preparation.
- Single Window Clearance Committee framework has been put in place by the Government of Odisha to facilitate investment proposals in the PCPIR.
- An MoU is expected to be executed between Indian Oil Corporation Limited (IOCL), the Anchor Tenant, and Government of Odisha by the end of March, 2015 on the road map of various projects to be undertaken by IOCL on development of downstream petrochemical industries in the PCPIR.
- IOCL has invested ₹ 32,018 crore (including contract awarded and committed) to set up 15 MMTPA refinery and a Polypropylene Unit. The refinery project is expected to be commissioned by June 2015.
- Polypropylene & Ethylene Derivatives from IOCL refinery are expected to be completed by 2017 & other feedstock to be available from the cracker at a later stage. Government of Odisha invites investment from other Anchor Tenants (Petroleum refining / petrochemical complex) in the PCPIR.
- The PCPIR is well connected through NH 5A (six laning being undertaken by NHAI). New Cuttack-Paradeep Road has already been operationalized. New roads are planned to connect PCPIR with Bhubaneswar (greenfield) and other ports (Coastal Highway). Applications to Department of Economic Affairs for

Viability Gap Funding (VGF) shall be made after preliminary assessment of the project is done.

- PCPIR is connected with a Broad Gauge double rail line. New Paradeep – Haridaspur rail line is expected to be operational by 2016. CONCOR is building a new Logistics Hub in PCPIR over 60 acres of land.
  Capacity of Paradeep Port will be augmented to 130 MMTPA by the end of 2015. Dedicated berth for Petroleum, Oil and Lubricants (POL) and 2nd 15 MMTPA Single Point Mooring projects are underway. Dhamra is an upcoming port, being developed by DPCL, with a capacity of 100 MMTPA out of which 25 MMTPA has been operationalized.
- The Surat–Paradeep gas pipeline (bi-directional) of 30 MMSCMD is being developed by GAIL with an investment of ₹ 5,400 crore. IOCL is also putting up a 5 MMTPA LNG Terminal at Dhamra port near Paradeep.
- Preliminary estimates have been prepared by Odisha Power Transmission Corporation Limited (OPTCL) for power supply (feeder lines+ substation). DPR is to be taken up for transmission lines to PCPIR. 40 acres of land has been provided to OPTCL. A 1320 MW thermal power plant by SPI Ports (P) Ltd is approved by High Level Clearing Authority (HLCA). Paradeep Plastic Park Ltd (SPV) is implementing the Plastic Park project at Paradeep. 120 acres of land in village Siju was allotted for the project and infrastructure development like road, boundary wall has been initiated by IDCO.
- Bidding process is in progress to award contract for Solid Waste Treatment & Disposal functions.

4.10.4 Tamil Nadu PCPIR

- State Government has taken up the activities of notification of the PCPIR and formation of PCPIR Management Board. Thereafter Master Planning and EIA activities will be taken up.
- The Anchor Tenant, Nagarjuna Oil Corporation Limited (NOCL), has invested ₹ 7,812 crore in its refinery project. The overall progress of project construction was around 60% when the work was disrupted by “Thane” cyclone in December, 2011 and the company faced financial constraints. As a result the date of commissioning of the first phase of the project has been extended.
- The capacity of the project is planned to be increased from 6 MMTPA to 12 MMTPA.
- A product jetty for evacuation of petroleum fuels and a Single Point Mooring system for receiving crude are under construction and 51% overall progress has been achieved.

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Chapter- 5

NEW SCHEMES OF PETROCHEMICALS

National Awards for Technology Innovation in Petrochemical and downstream Plastic Processing Industry

5.1 The scheme aims at incentivizing meritorious innovations and institutions in various fields of petrochemicals and downstream plastics processing industry. Central Institute of Plastic Engineering and Technology (CIPET) was entrusted with the task of seeking and short listing nominations for the scheme.

5.2 An outlay of ₹ 1 crore was provided to CIPET for the year 2013 -14. For the 4th National Awards (2013 -14), 313 nominations were received for the eight categories and three subcategories of the scheme, of which 17, 'Winners' and 6 'Runners-up' were selected. Minister (C&F) and Minister of State (C&F) felicitated the awardees in a function held on 17.07.2014 at New Delhi. For the 5th National Awards for Technology Innovation (2014 -15), 290 nominations have been received. Based on the recommendation of the 'Prize Award Committee', 16 'National Awards' and 14 'Runners-Up' have been selected for the National Awards for Technology Innovation 2014-15.The function to felicitate the awardees was held on 21.02.2015 at Bengaluru.

Setting up of Centres of Excellence (CoE)

5.3 The scheme aims at improving the existing petrochemicals technology and research in the country and to promote development of new applications of polymers and plastics. During the 11th Five Year Plan, two CoEs were approved viz.: (i) National Chemicals Laboratory (NCL), Pune - Centre of Excellence for Sustainable Polymer Industry through Research Innovation & Training (CoE-SPIRIT) and (ii) Central Institute of Plastics Engineering & Technology (CIPET), Chennai - Centre of Excellence for Green Transportation Network (GREET). Under the 12th Five Year Plan, the following three Centres of Excellence (CoE) have been approved viz.: (i) CoE for advanced Polymeric Materials at IIT, Delhi (ii) CoE on Sustainable Green Materials at CIPET Bhubaneswar and (iii) CoE for Sustainable Polymers at IIT, Guwahati.

5.4 The assets created under CoE-SPIRIT at NCL, Pune have not only resulted in a boost to contemporary research in Polymer science, but also contributed to the training of several members of polymer industry and academia. In case of CoE- GREET at CIPET Chennai and CoE on Sustainable Green Materials at

CIPET, Bhubaneswar, the outputs are in terms of promoting academic, research and educational excellence through partnership between CIPET, India and University of Toronto, Canada and Michigan State University, USA. At IIT, Delhi and IIT, Guwahati, the resources and capabilities are being strengthened for furthering research activities in Advanced Polymeric Materials and Sustainable Polymers, respectively.

5.5 An outlay of ₹ 6 crore was provided for the scheme in the year 2014-15. An Expert Group to review the physical and financial performance of the selected CoEs, was constituted. Based on the recommendations of the Expert Group, the 2ndinstallment of ₹ 2 crore was released to IIT, Guwahati in August, 2014. The review of the progress of CoE, being set up at CIPET, Bhubaneswar, was undertaken during November, 2014. Based on the review and recommendations of the Expert Group, the 3rd installment of funds amounting to ₹ 2 crore has been released to CIPET, Bhubaneswar in December, 2014.

Setting up Plastic Parks

5.6 The scheme aims at setting up of need based plastic parks, an ecosystem with state of the art infrastructure and enabling common facilities to assist the sector to move up the value chain and contribute to the economy more effectively. Under the scheme, Government of India provides grant funding up to 50% of the project cost subject to a ceiling of ₹ 40 crore per project. The remaining project cost is funded by the State Government or State Industrial Development Corporation or similar agencies of State Government, beneficiary industries and loan from financial institutions.

5.7 The Scheme Steering Committee (SSC) had earlier granted 'in principle' approval to the 4 proposals from Tamil Nadu, Madhya Pradesh, Assam and Odisha. Following the submission of the Detailed Project Reports (DPRs) and final approval, the Department has released the first installment of ₹ 8 crore of the Grant in Aid to Madhya Pradesh Plastic Park Development Corporation Ltd. (MPPPDCL), Paradeep Plastic Park Limited (PPPL) and Assam Industrial Development Corporation (AIDC) for setting up of plastic parks at Madhya Pradesh, Odisha and Assam respectively in the year 2013-14. The DPR, complete in all respect, is awaited from Tamil Nadu. The Department moved a proposal to seek additional funding for setting up of 10 plastic parks including current four plastic parks and six additional parks for implementation during 12th and 13thPlan period. The competent authority has approved the proposal.

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Chapter- 6

INTERNATIONAL CONVENTIONS AND TREATIES

Chemical Weapons Convention (CWC)

6.1 India is a signatory and party to the Chemical Weapons Convention (CWC), of the Organization for the Prohibition of Chemical Weapons (OPCW) with Head Quarters at The Hague, Netherlands. The Convention is a universal, non-discriminatory, multi-lateral, disarmament treaty which prohibits the development, production, stock-piling and use of chemical weapons and monitors its elimination in order to secure chemical weapons free world. India signed the treaty at Paris on 14th day of January 1993. India, pursuant to provisions of the Convention enacted the Chemical Weapons Convention Act, 2000. As on date, 193 countries are parties to the Convention. India was the First State Party to secure the distinction of chemical weapon free state Party by destructing all its stockpile of its chemical weapons amongst all State Parties of the Convention. The Department of Chemicals & Petrochemicals is the administrative department of CWC Act, 2000. Department of Chemicals & Petrochemicals (DCPC) is responsible for all matters relating to production, consumption, import and export of Schedule II and Schedule III chemicals producing units, including Other Chemical Producing Facilities (OCPF), that includes preparation and filing of Annual Declaration of Past Activates (ADPA) and Annual Declaration of Anticipated Activates (ADAA) and facilitating inspections of Chemical Plants by OPCW inspection teams.

OPCW Inspections

6.2 India hosts OPCW Inspections as per the provisions of the Convention to ensure that the activities do not violate the provisions of the CWC of the Scheduled Chemicals and OCPF. Till date, India hosted 185 such inspections under CWC, however, the inspection teams did not find even traces of presence of Schedule I chemicals in any one of the above inspections. The DCPC deputes competent technical officers for on sight industrial inspections along with visiting international inspection teams for preparation of pre-inspection briefing and for smooth conduct of inspections.

Annual Declarations

6.3 As per CWC, each State Party is required to file Annual Declarations twice in a year i.e. Annual Declarations of Anticipated Activities (ADAA) and Annual

Declaration of Past Activities (ADPA) of Schedule II, Schedule III producing industrial units including OCPFs. DCPC has been inviting on line declarations from the declarable chemical units and filing the error-free declarations within the stipulated time-limits. India has the distinction to become the only Second State Party to collect online declarations from declarable chemical industrial units after USA. It is an important way forward step in promoting e-governance in administration.

6.4 A total of 597 ADPA and 72 ADAA declarations have been filed during the 2014 calendar year.

CWC Help Desks

The Department has set up six Help Desks in PPP Mode in association with the Indian Chemical Council at various places having industry presence as indicated in Table XIII.

Table XIII: CWC Help Desks

Sl. No.	Help Desk	States
1.	Hyderabad	Andhra Pradesh, Orissa, Chhattisgarh
2.	Kolkata	West Bengal, Bihar, Jharkhand and North Eastern Region
3.	Delhi	Uttar Pradesh, Himachal Pradesh, Haryana, Punjab, Chandigarh, Uttarakhand and Jammu & Kashmir and Delhi
4.	Mumbai	Maharashtra, Goa, Rajasthan, Madhya Pradesh
5.	Chennai	Tamil Nadu, Kerala and Karnataka
6.	Vadodara	Gujarat

6.6 India has the distinction to be the First State Party to set up Help Desks amongst all the State Parties of the Convention. These Help Desks act as an important interface between Government and Chemical Industry, covered under the convention for facilitating compliance with the obligations of the convention. These Help Desks promote awareness guide and encourage the industrial units and make them understand the necessity under the Convention to file declarations. Further, the Help Desks organize several training / awareness programmes in their respective jurisdiction for representatives of declarable industrial units. Under CWC Plan Scheme, an amount of ₹ 86.5 Lakhs have

been utilized out of the sanctioned amount of ₹ 88.00 lakhs, to conduct various activities of the Help Desks. Apart from the above, the Help Desks undertake the following activities:

- Disseminate information on CWC and the obligations of the chemical industry, under the CWC Act.
- Identification of new units, which are potential declarants, through industry surveys and facilitate their filing of declarations.
- During the year 2014, total 15 awareness programmes have been conducted.

Rotterdam Convention

6.7 Rotterdam Convention on Prior Informed Consent Procedures (PIC) that entered into force on 24th February, 2004, is a legally binding instrument, which was adopted on 10th September 1998 by a Conference of Plenipotentiaries in Rotterdam. India acceded to the Convention on 24.05.2006.

6.8 The Convention seeks to promote shared responsibility and cooperative efforts among State Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm. It also seeks to contribute to the environmentally sound use of these hazardous chemicals by facilitating information exchange about their characteristics, providing for a national decision making process on their import and export, and by disseminating these decisions to the Parties.

6.9 Each Party is required to designate a National Authority for performing the administrative functions required under the Convention. Department of Chemicals and Petrochemicals is the Designated National Authority (DNA) for industrial chemicals and Department of Agriculture and Co-operation is the DNA for pesticides.

6.10 There are 47 chemicals listed in Annex III of the Convention and subject to the PIC procedure, which include 33 pesticides, of which 4 are severely hazardous pesticide formulations, and 14 industrial chemicals. The parties are required to communicate their import policy for these chemicals to the PIC Secretariat. The exporting Party has to provide the export notification to the importing Party in respect of banned or severely restricted chemicals in the importing country. The export notifications received from other Parties for industrial chemicals are examined by Department of Chemicals and Petrochemicals, being the DNA for chemicals, and acknowledgment/ reply is sent to the DNA of the exporting country.

6.11 During 2014-15, the Department is organizing 2 workshops to sensitize the industry about their obligations under the Rotterdam Convention.

Stockholm Convention

6.12 The Stockholm Convention, ratified by India on 13.01.2006, is a global treaty to protect human health and environment from Persistent Organic Pollutants (POPs). POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to human beings and wildlife. POPs travel globally and can cause damage wherever they travel. The Convention that entered into force of 17th May, 2004, lays down that in its implementation, Governments will take measures to eliminate or reduce the release of POPs into the environment.

6.13 The Stockholm Convention seeks the elimination or restriction of production and use of all intentionally produced POPs (industrial chemicals and pesticides). The Convention also seeks the continuing minimization and wherever feasible, ultimate elimination of the releases of unintentionally produced POPs such as dioxins and furans. At present, twenty one chemicals are covered under the Stockholm Convention, of which use of DDT is restricted in India. Use of DDT is banned for agricultural purposes; it is produced in a restricted manner for use in vector control only, as India has obtained exemption for use of DDT for vector control. Further, the chemical Dieldrin, which is also listed under the Stockholm Convention, is used in a restricted manner for locust control.

6.14 Stockpiles and wastes containing POPs must be managed and disposed of in a safe, efficient and environmentally sound manner, taking into account international rules, standards and guidelines. Each country is required to develop a plan for implementing its obligations under the Convention. A Global Environment Facility (GEF) has been set up as an interim financial mechanism, to assist the developing countries in implementation of the Convention.

6.15 During 2014-15, the Department is organising 2 workshops to sensitize industry about their obligations under the Stockholm Convention.

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Chapter- 7

BHOPAL GAS LEAK DISASTER

7.1 An industrial disaster of unprecedented scale occurred in the intervening night of 2nd/3rd December,1984, when Methyl Iso-cyanate (MIC), a lethal gas stored in two tanks at the pesticide plant site of Union Carbide India Limited (UCIL) at Bhopal, leaked into the atmosphere causing death and injury to a large number of people. Various relief and rehabilitation measures were initiated immediately after the disaster, some of these are still continuing.

Adjudication and disbursement of Compensation

7.2 On directions of the Supreme Court issued vide orders dated 14th and 15th February, 1989, Union Carbide Corporation, USA deposited a compensation amount of US$ 470 million, with the Registrar of Supreme Court of India in February, 1989. Government of India had earlier enacted the Bhopal Gas Leak Disaster (Processing of Claims) Act, 1985 and a Scheme there under for ensuring proper legal representation of the victims and settlement of their claims. Under this Act, the Office of the Welfare Commissioner, Bhopal Gas Victims, was set up by the Government of India for speedy adjudication and award/disbursement of compensation to the survivors and families of the victims of the gas leak disaster.

7.3 The process of adjudication and disbursement of the compensation commenced in 1992. The office of Welfare Commissioner has awarded / disbursed ₹ 1548.59 crore as compensation in settled cases of 5,74,386 claimants belonging to the categories of death, permanent disability, temporary disability, injury of utmost severity cases, minor injury, loss of property/PSU and loss of livestock.

7.4 It was brought to notice in the year 2004 that an amount of approximately ₹ 1500 crore, had accumulated with the Reserve Bank of India on account of accrual of interest and exchange rate variation. The Supreme Court vide order dated 19th July, 2004 had directed the Welfare Commissioner to disburse the said amount, on pro-rata basis (in the ratio of 1:1 of original compensation) to the claimants whose cases had been settled. A sum of ₹ 1511.54 crore as pro-rata compensation has been awarded in 5,62,981 cases till 31.12.2014. The work of disbursal of pro-rata compensation is continuing. As very few claimants have been appearing for pro-rata compensation, the Welfare

Commissioner has sought the directions of the Supreme Court on the issue of closure of cases of absentee claimants for pro-rata compensation.

Disbursement of Ex-gratia

7.5 After the reconstitution of the Group of Ministers (GoM) on Bhopal Gas Leak Disaster on 26.05.2010, the Government took certain decisions to provide further relief and rehabilitation to the gas victims. One major decision taken by the Government was to pay ex-gratia to the following categories of gas victims:

Table XIV: Categories of ex-gratia payments to gas victims.

Category	Ex-gratia
Death	₹ 10 lakh (amount of original and pro-rata compensation received, to be adjusted)
Permanent disability	₹ 5 lakh (amount of original and pro-rata compensation received, to be adjusted)
Injury of utmost severity	₹ 5 lakh (amount of original and pro-rata compensation received, to be adjusted)
Cancer	₹ 2 lakh (amount of original and pro-rata compensation received, to be adjusted)
Total Renal Failure	₹ 2 lakh (amount of original and pro-rata compensation received, to be adjusted)
Temporary disability	₹ 1 lakh (amount of original and pro-rata compensation received, to be adjusted)

7.6 An amount of ₹ 874.28 crore has been approved by the Government for making payment of ex-gratia by the Welfare Commissioner to an estimated 62,448 Gas Victims falling in the above mentioned categories. The disbursement of Ex-gratia commenced on 19.12.2010 and till 31.12.2014, 55,543 cases have been decided and a sum of ₹ 747.68 crore has been sanctioned/ disbursed in these cases.

Action plan for Rehabilitation of Bhopal Gas Victims

7.7 The Central Government had provided financial assistance to the extent of ₹ 102 crore over a period of 4 years form 1985 for rehabilitation work. Subsequently, the Central Government approved an Action Plan with an outlay of ₹ 163.10 crore, later revised to ₹ 258 crore, for medical, economic, social and environmental rehabilitation of the gas victims. The outlay was to be shared between the Central Government and State Government of Madhya Pradesh (GoMP) in the ratio of 75:25. The Action Plan was implemented from 1990

to 1999. The major component of the Action Plan was medical rehabilitation which included establishment of six full-fledged Gas Relief hospitals and also dispensaries for free treatment of gas victims. Further, ₹ 14.18 crore was provided by Government of India under Jawaharlal Nehru National Urban Renewal Mission (JNNURM), in April, 2006 for supply of piped drinking water to 14 localities around UCIL plant site where the ground water is not potable.

7.8 Based on another Plan of Action for taking up further rehabilitation measures for Bhopal Gas Victims submitted by the Government of M.P. in 2008, Government of India sanctioned a plan with an outlay of ₹ 272.75 crore on 75:25 basis to the State Government for medical, economic and social rehabilitation, and also provision for safe drinking water. An amount of ₹ 204.56 crore, being the grant component of Additional Central Assistance, was sanctioned on 08.07.2010.

7.9 The Government of Madhya Pradesh is in the process of implementation of various rehabilitation schemes as approved in the New Plan of Action. The State Government has apprised that till November, 2014, an amount of ₹ 129.45 crore has been spent / Administrative approvals issued, out of allocated sum of ₹ 272.75 crore.

7.10 Social Rehabilitation: An estimated 5000 Widows of Gas Victims are to be paid pension of ₹ 1000 p.m. for a period of five years, for which ₹ 30 crore has been allocated. Till November, 2014, pension has been released to 4,837 beneficiaries. A sum of ₹ 40 crore was allocated for construction of free houses for 2500 families of gas victims residing around the UCIL factory. The State Government has acquired 14 acres of land for this purpose. The Government of MP has indicated that only 897 houses can be constructed with the allocated ₹ 40 crore, for which administrative approval has been accorded. It has been proposed that another 9517 houses are required to be constructed for the residents living in these localities, for which additional funds are required.

7.11 Medical Rehabilitation: Construction of new buildings/ renovations of the six Gas Relief Hospitals, earlier set up under the First Plan of Action for free treatment of gas victims, have been undertaken. New equipments for these hospitals are being purchased.

7.12 Economic Rehabilitation: For ensuring employment to gas victims, the State Government has launched an entrepreneurship training Programme scheme with built-in employment opportunity. The State Government selected, through a transparent procedure, 21 Institutes for providing training

in different trades to the gas victims. 12155 beneficiaries were selected for training in different fields and trained. The selected institutions have reported 9300 placements, of which 4411 placements of 17 institutions are under verification. Expenditure incurred on this account till Nov. 2014 is ₹ 18.13 crore.

7.13 Clean Drinking Water: Out of ₹ 50 crore allocated for providing clean drinking water to the gas victims, Government of MP has utilized ₹ 42.28 crore till November, 2014 for provision of clean drinking water to the residents of gas affected wards of Bhopal.

Bhopal Memorial Hospital and Research Centre (BMHRC)

7.14 On directions of the Supreme Court, a Specialty Hospital named Bhopal Memorial Hospital and Research Centre (BMHRC) was established at Bhopal with money provided by Union Carbide Company, for free treatment of gas victims. The Hospital with super specialty facilities started functioning in July, 2000. The Hospital has 330 beds with facilities in 12 disciplines like Cardio Thoracic Surgery, Nephrology, Urology, Neurology, Neuro Surgery, Opthalmology, Pulmonary Medicine, Psychiatry etc,. 8 mini units of the Hospital have been set up in various gas-affected wards in Bhopal for the gas victims.

7.15 Initially, management of the hospital was overseen by a Trust named the Bhopal Memorial Hospital Trust (BMHT) under the Chairmanship of retired Chief Justice of India Shri A. M. Ahmadi. On the recommendations of the GoM and as decided by the Government, the administration of BMHRC has been taken over by the Government of India in the year 2010 and the Hospital is now being administered by the Department of Health Research.

ICMR – 31st Research Center

7.16 After the gas leak, Indian Council Medical Research (ICMR) had established a research center in Bhopal in 1984, and conducted epidemiological research and clinical studies. After publication of research papers in 1987 and 1994, ICMR stopped its research work on 31.12.1994 and handed over the research center (Center for Rehabilitation Studies) to the GoMP. The Government, based on recommendation of the GoM, decided that ICMR may resume its research on gas victims by establishing a full-fledged Research Centre in Bhopal. Accordingly, ICMR has established its 31st Research Center namely

"National Institute for Research in Environmental Health (NIREH)" at Bhopal, on 11th October, 2010, for conducting research studies in identified areas including respiratory diseases, cancer, total renal failure, genetic disorders, second generation children related medical issues.

Environmental Remediation of the UCIL Plant site

7.17 As per the decision of the Government, an Oversight Committee has been constituted in the Ministry of Environment and Forests under the Chairmanship of Minister, Ministry of Environment and Forests and Co-chairmanship of Minister-in-charge of BGTR&R Department, Government of Madhya Pradesh with members of concerned Departments/Agencies to provide oversight and support to remediation actions relating to UCIL plant site to be taken by GoMP. The activity of disposal of the 350 MT stored toxic waste at the UCIL plant site at Bhopal is being overseen and monitored by the Supreme Court of India in an SLP No. 9874/2012 filed by Ministry of Environment, Forests and Climate Change. M/o Environment, Forests and Climate Change is filing affidavits/ action taken reports in the Court.

Curative Petition

7.18 On the direction of the Cabinet, a Curative Petition No. 345-347 was filed in December 2010 by Union of India V/s Union Carbide Corporation (UCC), USA, Dow Chemicals, USA and Others claiming enhanced compensation from UCC and/ or successor companies of UCC, by seeking a review of the Court's earlier judgment of 1989, settling the compensation amount at US $470 million. In addition to increase in the amount of compensation settled with UCC in 1989, the petition also claims reimbursement of costs incurred by the Government for various rehabilitation measures for victims and also the amount required for environmental remediation. The Curative Petition is pending before the Supreme Court.

Discontinuance of Group of Ministers (GoM) on Bhopal Gas Leak Disaster

7.19 Consequent on decision taken by the Government on 31st May, 2014 for discontinuance of all GoMs, the pending issues that were before the GoM on Bhopal Gas Leak Disaster, are to be decided by the Department at the level of the Minister (Chemicals & Fertilizers). A meeting was taken by the Minister (C&F) with the representatives of the concerned Department, Organization, Government of MP, to consider some of the pending issues which included

pending cases of ex-gratia, progress of implementation of rehabilitation schemes, provision of funds for environmental remediation. The Minister (C&F) issued directions to all concerned for necessary action.

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Chapter- 8

PUBLIC SECTOR UNDERTAKINGS

Assam Gas Cracker Project (Brahmaputra Cracker & Polymer Limited)

8.1 The Assam Gas Cracker Project was initiated in pursuance of the Memorandum of Settlement signed between Central Government, All Assam Students Union (AASU) and All Assam Gana Parishad (AAGP) on 15th August 1985. This project is of economic significance for the State of Assam and the North East Region. Cabinet Committee on Economic Affairs (CCEA), in its meeting held on 18th April, 2006, approved the setting up of the Assam Gas Cracker Project at a Project cost of ₹ 5,460.61 crore. A joint venture company namely Brahmaputra Cracker & Polymer Limited (BCPL), is implementing the project. Owing to various reasons, the project has witnessed cost and time overruns. The revised cost estimate of ₹ 8,920 crore (on "as built basis") was approved by the CCEA on 16th November, 2011 with revised mechanical completion by July, 2013 and commissioning by December, 2013.

8.2 As on 15th December, 2014, the overall physical progress was 99% and the cumulative capital expenditure incurred, was ₹ 8,086.79 crore i.e. 90.66%. The Department of Chemicals & Petrochemicals has released capital subsidy amounting to ₹ 4,690 crore to BCPL. The pre-commissioning activities in different units are in progress.

8.3 In view of time overrun, foreign exchange fluctuations, price escalation, increase in statutory levies etc. further cost and time escalation has occurred and therefore BCPL has proposed revised project cost of ₹ 9833.52 crore. The estimated increase in project cost of ₹ 913.52 crore is proposed to be funded by capital subsidy, debt and equity of ₹ 478.96 crore, ₹ 304.19 crore and ₹ 130.37 crore respectively. The commissioning of the project has been scheduled for June, 2015.

8.4 Further, in order to make the project economically viable, BCPL has proposed feedstock subsidy on natural gas of ₹ 7,775.71 crore (NPV is ₹ 3,447.19 crore) for 15 years of plant operation and revenue subsidy of ₹ 240.86 crore to fund the cash deficit during initial 3 years. The proposal is based on existing natural gas price of $5.61/mmbtu and three year's average polymer price.

8.5 The Standing Committee, constituted to look into the time and cost overruns, has examined the reasons for cost and time escalations and submitted its report. The proposal will be placed before the Public Investment Board (PIB) and Cabinet Committee on Economic Affairs (CCEA) as per the laid down procedures.

Hindustan Organic Chemicals Limited

8.6 Hindustan Organic Chemicals Limited (HOCL) was incorporated on 12th December, 1960 as a Government company with the objective of setting up manufacturing capacities for chemicals/ intermediates which are required for production of dyes, dye-intermediates, rubber chemicals, pesticides, drugs and pharmaceuticals, laminates, etc. The products manufactured by HOCL include phenol, acetone, formaldehyde, nitrobenzene, aniline, nitro-toluene, nitric acid, di-nitrogen tetra-oxide (N_2O_4) and hydrogen peroxide. The raw materials used by HOCL are benzene, toluene, LPG, methanol, CNG and sulphur, most of which come from petroleum refineries. HOCL is the only manufacturer of liquid rocket propellant N_2O_4 in the country, supplying to ISRO. HOCL now has 58.78% Government share holding.

8.7 HOCL has two units, located at Rasayani (Maharashtra) and Kochi (Kerala). It also has a subsidiary company, viz. Hindustan Fluorocarbons Limited (HFL), located at Rudraram, Medak (Andhra Pradesh) which manufactures Poly-Tetra-Fluoro-Ethylene (PTFE), a high- technology engineering plastic.

8.8 The company was referred to Board for Industrial and Financial Reconstruction (BIFR) in February, 2005 and based on the recommendations of Board for Reconstruction of Public Sector Enterprises (BRPSE), Government approved a Revival Package on 09.03.2006, providing cash infusion of ₹ 250 crore in the form of 8% Redeemable Non-Cumulative Preference Shares for repayment of high cost overdue Bonds payment of VRS and waiver of penal interest and interest on interest up to 31.03.2005 and continuation of Government of India Guarantee of ₹ 100 crore for full term of 10 years to be utilized to liquidate high cost debt. With this financial restructuring, the net-worth of the company became positive and BIFR discharged the company from the purview of Sick Industrial Companies (Special Provisions) Act, 1985 in 2008.

8.9 During the past few years, the company started making losses again and considering the precarious financial position of HOCL, the Cabinet Committee on Economic Affairs (CCEA) in August 2013 approved to postpone the

redemption of ₹ 250 crore Preference Shares, which was due from 2011-12, by another 4 years (i.e. to begin from 2015-16), and to renew the Government Guarantee of ₹ 100 crore up to August 2017. Subsequently, as the net worth of the company became negative due to continuous losses on 31.03.2013, HOCL filed application to BIFR on 27 November, 2013 and was registered with BIFR on 8.10.2014. Recently, with the support of Government Guarantee amounting to ₹ 150 crore, HOCL raised money from the market and restarted production at Kochi plant.

8.10 The physical and financial performance of the Company during the last five years is mentioned in Table XV below.

Table XV: Performance of HOCL

Year	Sales /Turnover (₹ crore)	Net Profit / Loss (₹ crore)
2009-10	520.71	(-) 83.07
2010-11	738.04	(+)25.71
2011-12	606.36	(-)78.07
2012-13	624.19	(-)137.99
2013-14	237.20	(-)176.85

8.11 During 2014-15 (up to December 2014), the company has achieved a turnover of ₹ 80.37 crore and incurred a net loss of ₹ 126.56 crore, as per the provisional, unaudited results.

8.12 The Kochi Unit has been generally achieving high capacity utilization throughout due to the measures taken for continuous supply of raw materials through pipeline network established between BPCL-KR and HOCL Plant, which has helped the company to streamline the production performance without any interruption. It also helped the Company to reduce overhead expenditure for sampling and eliminated the handling losses, thus improving the efficiency of operations and safety of the unit.

8.13 HOCL has been making efforts to reduce the cost of production and generate revenue. At Rasayani, retrofitting of Nitric Acid plant, where di-nitrogen tetra-oxide (N_2O_4) is produced, has been completed. Disposal of the Non Performing Assets (NPAs) has been undertaken to generate funds. Similarly, at Kochi unit, burner and other accessories in boiler, hot oil unit, etc have been modified to suit Low Sulphur Furnace Oil (LSFO) and Re-Liquefied Natural Gas (RLNG), i.e. dual fired, which will bring down the cost of production of Phenol and Acetone.

The debottlenecking of Hydrogen Peroxide plant has also been completed. Further, in order to put HOCL back on a sustained growth path, the possibility of utilization of vacant land available at Rasayani is being explored through various options like leasing out to other government companies, merger and/ or joint venture etc.

8.14 HOCL has engaged M/s FEDO (FACT Engineering and Design Organization) as a consultant for conducting a revival study. The consultant has submitted their draft report which, after approval of Board, will be submitted to BIFR for consideration and further decision.

Hindustan Fluorocarbons Limited

8.15 Hindustan Fluorocarbons Limited (HFL), a subsidiary company of Hindustan Organic Chemicals Limited (HOCL), was incorporated on 14.07.1983. The company is engaged in the manufacture of Poly Tetra Fluoro Ethylene (PTFE) and Chloro Di Fluoro Methane (CFM-22). PTFE is extensively used in chemical, mechanical, electrical and electronic industries and has strategic applications in defence and aerospace sectors. The factory is located at Rudraram, District Medak, in Telangana.

8.16 The company is under BIFR. The Rehabilitation package under the operating agency M/s. IDBI was approved by BIFR on 03.12.2007 and implementation has been completed. The company has diversified into profitable business of fluoro specialty chemicals and also developed fluoro specialty chemicals like TFE-Ether for the first time in India and has been successfully selling them. The quality of all products of the company continues to be well accepted by customers.

8.17 The physical and financial performance of the Company over the last five years has been as follows:-

Table XVI: Performance of HFL

Year	Turnover (Rs. crore)	Net Profit (Rs. crore)
2009-10	20.23	3.06
2010-11	33.52	2.23
2011-12	50.33	2.52
2012-13	44.48	0.95
2013-14	31.34	(-)24.82

8.18 During 2014-15 (up to December 2014), the company has achieved a turnover of ₹ 22.55 crore and a net profit of ₹ 0.13 crore, as per the provisional, unaudited results.

8.19 HFL has undertaken the development of specialized PTFE, i.e. modified PTFE, and a plan loan of ₹ 3.60 crore has been provided for this purpose by the Department to the company which plans to manufacture this product in the existing system with some modifications. At present modified PTFE is being imported, but it has wide market potential owing to its versatile applications. The company has plans to take up the following projects:-

Table XVII: Proposed projects of HFL

A	**Refurbishment Plans**
1	Refrigeration System
2	Furnace with Pyrolysis Coil
3	Fluid Energy Grinding Mill
4	TFE Compressor and Vacuum/Jet pump
5	CFM Compressor & Air Compressor
6	Instrumentation

B	**New Schemes/Projects**
1	Hexafluoropropane (HFP) and Fluorinated Ethylene Propylene (FEP) related investments
2	New Reactor Set
3	Debottlenecking of the Monomer Plant
4	Pilot Plant for Product Development

8.20 A plan loan of ₹ 13.20 crore has already been provided for refurbishment and HFP and FEP related projects by the Department to the company for implementing its schemes. These will help HFL to turnaround and earn profits in the near future.

Hindustan Insecticides Limited

8.21 Hindustan Insecticides Limited (HIL) was incorporated in March, 1954 for manufacture and supply of DDT. In 1957, the company set up a factory at Udyogamandal near Cochin for manufacture of DDT and in 1977 at Rasayani, Maharashtra for manufacture of Malathion, an insecticide. Today, HIL has

three units located at Udyogamandal in Kerala, Rasayani in Maharashtra and at Bathinda in Punjab.

8.22 DDT accounts for almost 47-48% of turnover of the company and is supplied only to the National Vector Borne Disease Control Program of the Government of India. The Company supplies DDT to other countries also.

8.23 HIL diversified into agro-chemicals in the late seventies to ensure supply of quality pesticides at reasonable prices to the agriculture sector. To further consolidate its position, one new thrust area recently identified is the seed business. Ministry of Agriculture, Government of India, has given recognition to HIL as a nodal agency for production and marketing of certified seeds for crops and vegetables. The groundwork has already been done to transform HIL into a one stop shop to the farmer i.e. providing two critical agricultural inputs-seeds and pesticide.

8.24 The performance of the company over the last 5 years is as follows:

Table XVIII: Performance of HIL

Year	Sales Turnover (₹ crore)	Net Profit (₹ crore)
2009-10	243.88	3.06
2010-11	271.04	1.58
2011-12	279.82	1.60
2012-13	301.11	2.92
2013-14	330.35	1.84

8.25 During 2014-15 (up to December 2014), the company has achieved a turnover of ₹ 184 crore and a net profit of ₹ 0.95 crore, as per the provisional unaudited results.

8.26 HIL has commissioned Buprofezin (Tech) manufacturing facility. Commercial production of Imidacloprid is currently going on in the Multi-product plant, which has facilities to manufacture Chlorpyriphos, Acetmaprid and Traizophos as well at Rasayani unit. At Kochi unit, the capacity enhancement of the Mancozeb facility from 1000 to 2000 MT is underway.

New initiatives, projects and proposals of HIL

8.27 HIL has taken an initiative to develop alternative vector control method and

Long Lasting Insecticidal Net (LN). A new product, to be used for Indoor Residual Spray (IRS) as an alternative for DDT, is under development at a renowned University. The new molecule is expected to be a major breakthrough in vector control. Further, IRS and LN, being complimentary vector control tools, will strengthen the company's presence in this segment.

8.28 A plan loan of ₹ 4 crore has been provided by the Department to the company for the following projects:

i) HIL has planned to put up a facility for manufacturing Glyphosate (Tech), a broad-spectrum systemic herbicide, which is used to kill weeds, by retrofitting its Endosulfan plant at Kochi unit. The company also plans to manufacture high purity Dicofol at Kochi unit in its existing plant. Dicofol is a miticide that is very effective against red spider mite.

ii) At Bathinda unit, the company proposes to put up a suspension concentrate (SC) Formulation Plant as Buprofezin (T) plant has been commissioned.

iii) At the Rasayani unit, there is a plan to replace the existing Induced Draft Cooling Tower, which is not in good condition, with a new one of same capacity having multiple cell arrangement, so that it economise the running cost.

8.29 Further, a plan loan of ₹ 11 crore has also been provided by the Department to the company which plans to manufacture Pendimethalin, a herbicide mainly used for pre-mergence with post-mergence applications, to control annual grasses and certain broadleaf weeds which interfere with growth, development, yield and quality of agricultural and horticultural crops by competing on nutrients, water and light. As the demand for the herbicide is growing in India, this diversification will enable the company to move with the emerging trend.

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Chapter- 9

AUTONOMOUS INSTITUTIONS

Central Institute of Plastics Engineering & Technology (CIPET)

9.1 CIPET is an ISO 9001:2008 QMS, NABL; ISO/IEC 17020 accredited premier national institution devoted to Academic, Technology Support & Research (ATR) activities for the growth of polymer & allied industries in the country. CIPET operates at 23 locations spread across the country with its Head Office at Chennai. These Centres are listed below in Table IXX.

Table IXX: CIPET Centres

5 High Learning Centres (HLCs)

- Chennai
- Ahmedabad
- Bhubaneswar
- Lucknow
- Kochi

2 R&D wings:

- Advanced Research School for Technology Product Simulation (ARSTPS) at Chennai.
- Laboratory for Advanced Research in Polymeric Materials (LARPM) at Bhubaneswar.

3 Specialized units:

- Advanced Tooling and Plastics Product Development Centre (ATPDC), Madurai.
- Advanced Plastics Processing Technology Centre (APPTC), Balasore.
- Plastic Waste Management Centre at Guwahati

11 Diploma Centres

- Amritsar
- Aurangabad
- Bhopal
- Guwahati
- Hyderabad
- Hajipur
- Haldia
- Jaipur
- Imphal
- Mysore
- Murthal

1 Polymer Data Service Centre at
IPFT Campus, Gurgaon

1 Vocational Training Centre at
MCTI Campus, Bhubaneswar

• All the CIPET centres have state-of-the-art infrastructural facilities in the area of Design, CAD/CAM/CAE, Tooling & mould manufacturing, plastics processing, testing and quality control to cater to the needs of plastics and allied industries.

9.2 Academic Programs

9.2.1 Long-term Programs

CIPET offers 12 different Long-Term training programs viz. Diploma, Post Diploma, Post Graduate Diploma, Undergraduate, Post Graduate and Ph.D. programmes. The details of these programmes along with the number of students enrolled during the current year in the respective course are as under:

Table XX: Long-Term Training Programmes

Sl. No.	Course	Duration	No. of Students
1.	Diploma in Plastics Technology (DPT)	3 years	1370
2.	Diploma in Plastics Mould Technology (DPMT)	3 years	1474
3.	Post Diploma in Plastics Mould Design with CAD/CAM	1 ½ years	112
4.	Post Graduate Diploma in Plastics Processing &Testing (PGD-PPT)	1 ½ years	1402
5.	B. Tech. (Plastics Engineering/ Technology)	4 years	231
6.	B.E./B. Tech. (Manufacturing Engineering/Technology)	4 years	221
7.	M. Tech. (Plastics Engineering/ Technology)	2 years	46
8.	M. Tech. (Polymer Nanotechnology)	2 years	18
9.	M.E. (CAD/CAM)	2 years	15
10	M.Sc.(Bio Polymer Science)	2 years	24
11.	M.Sc.(Polymer Science)	2 years	37
12.	M.Sc. (Tech.) in Material Science Engineering	5 years	17

9.2.2 The Undergraduate, Postgraduate & Doctoral programs are offered at the five HLCs in affiliation/collaboration with the respective State Universities.

9.2.3 Construction of Hostel facilities for around 8500 students at 10 CIPET centres viz. Haldia, Jaipur, Chennai, Ahmedabad, Murthal, Bhubaneswar, Hydrabad, Lucknow, Aurangabad and Amritsar under the XII Plan scheme has been initiated.

9.2.4 In the year 2014-15, 12,629 students are studying in as against 11,494 students in 2013-14.

9.3 Short-Term & Vocational Skill Training Programs

9.3.1 CIPET also offers specialized and customized Short – Term Training Programs in the field of Polymer Science & Technology to improve the skill competency of technical manpower in the plastics and allied industries. In the year 2013-14, CIPET trained 39040 participants, including long-term & short-term training programs against the target of 39000. During the year 2014-15 CIPET has committed to achieve a target to train 42,900 students.

9.3.2 During the current year, CIPET has trained 4,301 students in the various skill development training programs sponsored by Government Departments / Agencies such as Ministry of DONER, Ministry of Social Justice & Empowerment, SC/ST Welfare Department, Department of Minority Affairs etc. in the areas of Polymer Science & Technology for the benefits of unemployed / under-employed youth. In addition, 5,094 participants have been trained by CIPET during the current year in various in-house skill development training programs as well as programs sponsored by various private industries.

9.4 Technology Support Services (TSS)

Industrial Assignment:

9.4.1 CIPET offers TSS to plastics & allied industries through collaboration and undertaking various assignments. In the year 2014-15 (up to November, 2014), 18,620 TSS assignments which include/ job works, mould orders, testing assignments, consultancy services, were undertaken by CIPET Centres. The important assignments undertaken include development of:

- Solar Battery Container for M/s. Suntech Industries: by CIPET, Jaipur.
- Water R.O. Tank for M/s. Reliable Pure Aqua System Pvt. Ltd.: by CIPET, Jaipur.
- Meter Top & Bottom and Module for M/s. Parul Technochem: by CIPET, Jaipur.
- Butt of Rifle mould for M/s. Bajaj Engineers and Consultant Co. Bahadurgarh, Haryana: by CIPET, Murthal.
- CPT Bracket for M/s. Viswas Moulders Pvt. Ltd.: by CIPET, Aurangabad.
- Impression injection moulds for big connector for M/s. Craft Creations Pvt. Ltd. : by CIPET, Aurangabad.
- Food Processing pump impeller part and Nozel for M/s. HMT Ltd. :by CIPET, Aurangabad.
- 16 Impression Injection Mould for U-Clip Components for M/s. Oorja Energy Engineering. Services Pvt. Ltd. : by CIPET, Hyderabad.
- Injection Mould for Motor Lid for M/s. ECIL: by CIPET, Hyderabad.

- Blow Mould for 50 ml bottle & ½ liter square bottle for M/s. Krazzy Industries: by CIPET, Bhubaneswar.
- Blow Mould for M/s. Mega Plast Industries Aruppukottai: by CIPET, Madurai.
- Design & Development of Solar Battery Container for M/s. Suntech Industries: by CIPET, Madurai.
- Water R.O. Tank for M/s. Reliable Pure Aqua System Pvt. Ltd.: by CIPET, Madurai.
- Meter Top & Bottom and Module for M/s. Parul Technochem: by CIPET, Madurai.
- Electrical Junction Box for Three Way 19, 20 & 25 for M/s. Richa Cables: by CIPET, Madurai.

9.4.2 During the year, 1800 Pre-Delivery Inspection (PDI) assignments were undertaken from reputed industries across the country and from Government organizations.

Memoranda of Understanding (MoU) singed:

9.4.3 An MoU has been signed with Bharat Electronics Limited (BEL), Bengaluru for collaboration in the areas of Conductive Housing for Portable Electronics and Pressure Sensors for Naval Applications.

9.4.4 An MoU has been signed with Hindustan Aeronautics Ltd (HAL) for indigenization of aircraft components and collaborative research.

Polymer Data Service (PDS):

9.4.5 Polymer Data Service (PDS), a wing of CIPET, was established with the objective of enhancing the growth of polymer industry by interlinking the industry through sectoral database. The services of PDS include creation of Database, Techno-Economic Feasibility Reports (TEFR), EDP/FDP Training Activity, National/International Conferences and support to R&D activity. The activities undertaken by PDS during 2014-15 are:

- Around 2000 polymer industries have been registered on PDS web-portal. The registered data will be accessible to the general public.

- Organized 4 Faculty Development Programmes (FDP) on 5S, 6 Sigma & Kaizen for CIPET employees at Chennai, Gurgaon, Aurangabad and Mysore centres.

- PDS has coordinated the Plastics related Sectional Committee (PCD 12 & PCD 27) meeting of Bureau of Indian Standards (BIS) at PDS-Gurgaon. Faculty

from CIPET and representatives from plastics and allied industries & Plastic Associations attended this BIS meeting through Video conference.

- PDS conducted 2 Four Days workshops on "Laboratory Quality Management System & Internal Audit as per ISO/IEC-17025" at Gurgaon & Chennai.

9.5 Research & Development activities

9.5.1 The two RD wings of CIPET are performing well in their respective domains with focus on biopolymers, e-waste, nano-composites, composites, fuel cells, polymer blends, carbon nano-tubes and design & modeling.

9.5.2 In the current year four Patents/Book (chapter) have been filed/published through international publishers. 27 Research Papers were published / presented in leading International Journals. 9Papers have been presented in International Conferences.

9.6 Conference / Seminar / Exhibition:

9.6.1 International Conference on "Advancements in Polymeric Materials" - the 6th in the series, APM 2015 was held at Indian Institute of Science, Bengaluru, India during February 20 - 22, 2015 on the theme of "Marching towards smart product design and development with multi-functional materials". The Conference was organized by Advanced Research School for Technology & Product Simulation (ARSTPS), R&D wing of CIPET in association with Indian Institute of Science, Bengaluru & Central Power Research Institute (CPRI), Bengaluru.

9.6.2 The conference broadly focused on the subjects of Advanced Materials, Design and Product Development, Manufacturing Technology, Automation and Equipment Manufacturing.

9.6.3 The event was attended by around 174 Universities / Institutions / R&D Laboratories from both India and abroad. The event also bridged the gap between academia and industry through exchange of new ideas and technology transfer. 406 research papers on different topics of relevance were presented and deliberated during the conference.

9.6.4 Shri Ananth Kumar, Minister for Chemicals & Fertilizers inaugurated the 5thediting International Plastics Exposition (IPLEX) 2014 at Hyderabad on August 8-11, 2014. More than 50,000 visitors participated in the 3 days event).

(Shri Ananth Kumar, Minister for Chemicals & Fertilizers inaugurating the 5th editing International Plastics Exposition (IPLEX) 2014 at Hyderabad on August 8-11, 2014).

9.6.5 National Seminar on Biopolymers & Green Composites (BPGC 2014) was organized by Centre for Bio-Polymer Science and Technology (CBPST), Kochi on 14th November, 2014. The focus of the seminar was on recent developments, applications, trends and issue of the biopolymers and green composites.

9.6.6 Minister, Chemicals and Fertilizers set up a Coordination Committee under the chairmanship of Secretary, C&PC in September, 2014 to assess the issues related with Human Resources & Skilled Manpower requirement of the industry. The Committee and its subgroup held meetings with industry associations and have submitted its report to the department. The report has provided an estimate of the manpower requirement of around 11 lakh for the next 10 years in different processing streams and at different levels of operations and supervision, which is very crucial for planning of Skill Development infrastructure and facilities for the plastics sector.

(Shri Surjit K. Chaudhary, Secretary, C&PC chairing the 1st meeting of the Coordination Committee on "Human Resource and Manpower Requirement in Petrochemical sector" at Mumbai on 17th December, 2014)

9.7 Financial Performance

9.7.1 CIPET has been given a target to earn revenue of ₹ 155.00 crore during the financial year 2014-15. The projected revenue expenditure for the year is ₹ 118.92 crore without depreciation and ₹ 140.00 crore with depreciation. During 2013-14, CIPET had achieved revenue of ₹ 140.07 crore. The revenue expenditure for the year was ₹ 102.16 crore without depreciation and ₹ 124.68 crore with depreciation.

9.8 Major Events

9.8.1 A meeting was held with the representatives of Chemicals & Petrochemicals industry associations under the Chairmanship of Minister for Chemicals & Fertilizers at Mumbai on 6th September 2014. The meeting was also attended by the representatives of Ministry of Micro, Small and Medium Enterprise (MSME) and Ministry of Textiles. In the meeting various issues pertaining to the industry such as Industry's participation and preparedness for Plastic Waste Management, issues related with Human Resources / Skilled Manpower requirement of the Industry were discussed.

9.8.2 Secretary, Chemicals and Petrochemicals visited Plastic Waste Management Centre (PWMC) CIPET Guwahati, Assam on 17.10.2014 and inaugurated 'Plastics Waste to Fuel Plant'.

(Shri Ananth Kumar, Minister for Chemicals & Fertilizers having interaction with Industry associations at Mumbai on 6th September 2014)

9.8.3 A workshop on "leadership and motivation" was organized at Lavasa, Maharashtra from 15 to 17 January, 2015. Heads of PSUs and institutions under the administrative control of the Department of Chemicals and Petrochemicals as well as senior officers of the department attended the workshop.

9.8.4 Minister for Chemicals and Fertilizers along with Minister of State for Chemicals and Fertilizers laid the foundation stone of boys & girls hostels at CIPET Centre, Murthal, Haryana on 20.01.2015.

(Glimpses of the Workshop on 'Leadership and Motivation' at Lavasa)

9.9 Interaction with international institutions

9.9.1 A delegation from Department of Chemicals and Petrochemicals & CIPET visited Moscow on 15-22 June, 2014 and an MoU was signed between M.V. Lomonosov Moscow State University, Moscow, Russia and CIPET, on 20th June, 2014. The objective of the MoU is to undertake collaborative research programs and students exchange.

(Memorandum of Agreement (MoA) signed between M.V.Lomonosov Moscow State University, Moscow, Russia and CIPET, India on 20th June, 2014)

Institute of Pesticide Formulation Technology (IPFT)

Aims and Objectives

9.10.1 The institute was established in May, 1991 under the aegis of Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers as an autonomous institution for achieving the following objectives:-

- To develop and produce new pesticide formulation technology that is environment friendly.
- To promote efficient application technologies for new formulations suitable for the existing requirements.
- To disseminate information on safe manufacturing practices, quality assurances, raw material specification and sources.
- To undertake consultancy services and offer analytical solutions for agrochemicals manufacturers and users.
- To nurture talent in pesticide scientists by enhancing their skills through specialized training and continuing education.
- Since its inception, the institute has made efforts to establish a healthy rapport with the pesticides industries and has contributed to the enhancement of indigenous pesticide technologies by formulating some of the most efficient, economical and environment friendly solutions in the country. Some of its formulations have seen successful technology transfers for production of next generation pesticides.

Major Achievements during the Year

9.10.2 IPFT continues to be accredited by National Accreditation Board for Testing & Calibration Laboratories (NABL) as per ISO – 17025 (2005) for the analysis of Pesticides and CWC related chemicals.

9.10.3 A MoU has been signed with Higher School of Agriculture University of Lome (HSA/UL), Togo for collaborative research work in May, 2014.

9.10.4 IPFT has submitted a proposal for establishment of an IGNOU Programme Study Centre for "Post Graduate Diploma in Analytical Chemistry (PGDAC)" at IPFT, Gurgaon on 25.07.2014.

9.10.5 It has successfully developed Solid WDG formulation of liquid insecticide Chlorpyriphos. The patent has been filed.

9.10.6 It has also successfully developed water based micro-emulsion combination formulation of two herbicides. The patent filing work is in progress.

9.10.7 The Department of Chemicals and Petrochemicals, Ministry of Chemicals & Fertilizers, Government of India sanctioned the following five projects for the XII Five Year Plan.

- Development of User & Environment Friendly Water Dispersible Granule Formulations of Highly Toxic, Broad Spectrum & effective Pesticides to reduce their Toxicity for Continuation of Use and Prevention from Ban.
- Development of Mass Production Technique and Formulation for Baculoviruses.
- Management of Termite by Integrated Approach and Indigenous Technologies.
- Magnetic core-shell nano particles based extraction coupled with Gas/Liquid Chromatography–Tandem Mass Spectrometry for trace level analysis of pesticides.
- Pesticide formulation from Plant Extract and their Bio-efficacy studies.

9.10.8 Besides the above in–house projects, IPFT is also working on the following sponsored projects sanctioned by other funding agencies:

- Development of recyclable catalytic systems based on nano-particles and nano-particulate assemblies for the treatment of toxic effluent generated from Indian pesticide industries (Sponsored by the OPCW).
- Formulation development and application of Gibbagotrianthema as mycoherbicide against Trianthemaportulacastrum L. weed in Kharif crop.

Pathogenicity tests have been completed and mass rearing of pathogen is in progress (Sponsored by Department of Science & Technology).

- Monitoring of Pesticide Residue in various crops (Sponsored by ICAR, Ministry of Agriculture, Government of India).
- Development and evaluation of Nano-technology based pesticide formulations for impregnating in Military uniforms and paints (Sponsored by: DRDO)

9.10.9 A total number of 86 new projects have been sponsored by the Indian Agrochemical Industries to IPFT for data generation on Bioefficacy and Phytotoxicity from April 2014 to December 2014. IPFT has also worked on two separate projects sponsored by Hindustan Insecticides Ltd and LambertiHyrocolloids Ltd for development of user and environment friendly pesticides. IPFT has completed Residue Analysis projects for two Agrochemicals companies viz. 10 projects for Jai Sree Rasayan and 2 different projects for Krishi Rasayan. Research on particle size distribution was also conducted for 239 samples submitted by different industries.

Academic, Research and Training outputs

9.10.10 IPFT has published over 5 papers in National /International Journals. Papers were presented in 7 different conferences across the country. IPFT scientists were invited to deliver lectures on various topics and 10 talks and lectures were attended by the IPFT scientists during the year. IPFT scientists also attended 1 training course as part of continuous up-gradation of skills. Similarly the Institute organized 2 specialized training programmes.

Revenue Generation

9.10.11 IPFT has generated revenue of ₹ 109.93 lakhs during April to December 2014.

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Chapter- 10

PROMOTIONAL ACTIVITIES AND MAJOR EVENTS

INDIA-CHEM 2014

10.1 To promote the Indian Chemical Industry, the Government of India, Department of Chemicals and Petrochemical and Federation of Indian Chambers of Commerce & Industry (FICCI) have been jointly organizing the "India-Chem" series of events every alternate year. These events provide a platform to the Indian Chemical Industry to showcase its potential to an international audience. The participation of major international players in the chemical and petrochemical sectors exposes the Indian industry to international developments.

10.2 The 8th edition of India-Chem, an International Exhibition and Conference, was held on October 9-11, 2014 at Mumbai. The theme of the event was "Spurting the growth of Indian Chemical and Petrochemical Industry". The event was inaugurated by Shri Ananth Kumar, Minister of Chemicals and Fertilizers on October 9, 2014 at Mumbai in the presence of Shri Surjit K. Chaudhary, Secretary, Department of Chemicals and Petrochemicals, H.E. Gholamreza Ansari, Ambassador of Islamic Republic of Iran to India, Mr. Yoshihiro Umeha, Member of Board & Managing Executive Officer, Mitsubishi Chemical Corporation, Shri Nikhil Meswani, Executive Director, Reliance Industries Ltd. and captains of the industry.

(Shri Ananth Kumar, Minister for Chemicals & Fertilizers inaugurated the 8th edition of India-Chem, an International Exhibition and Conference at Mumbai on October 9, 2014)

10.3 Minister of Chemicals and Fertilizers, in his inaugural address, emphasized on the need to adopt environment friendly and sustainable measures for spurting the growth of Indian Chemical and Petrochemical Industry. He also stressed on exploring establishment of reverse SEZs for meeting the requirements of feedstock, and released a Handbook on Chemicals and Petrochemicals industry on this occasion.

10.4 Iran participated as the partner country and Japan was the focus country. The Partner State was Gujarat. State Pavilions of Rajasthan, Karnataka, Andhra Pradesh, Odisha and Telangana were also set up. Total 278 exhibitors, including 144 international companies from 12 countries such as Germany, U.K., Singapore, UAE, China, Vietnam, Turkey, Iran, Japan, USA, participated in the Exhibition. More than 15,000 Business visitors from a number of countries attended the event.

10.5 Events held on the sidelines of India-Chem:

The following events were held on the sidelines of the India-Chem 2014:

- A Conclave of Overseas Industry Associations was organized by Indian Chemical Council on the theme 'Responsible Care and Security Code'. The Conclave discussed in depth the various aspects of this topic. 40 delegates, including 11 from abroad, participated in this conclave.

- Reverse Chemical Buyers Sellers Meet was arranged by CHEMEXCIL with a view to promote export of chemicals, dyes, pesticides, essential oils, etc. Sixty international buyers from 22 countries such as Jordon, Egypt, Israel, Lebanon, Ethiopia, Kenya, Nigeria, Ghana, Uganda, Tanzania, Indonesia, Malaysia, Vietnam, Brazil , participated in this Meet.

- A CEOs' Conclave with the theme 'Indian Chemical and Petrochemical Industry – A Global Manufacturing Hub' was held in which about 42 captains of industry from chemical and petrochemical sector had an interactive meeting with the Minister and senior Government officers to discuss various issues that affect the competitiveness of the Indian sector and also new measures for speedy clearances from the Government Offices.

- With the aim of encouraging sustainability and innovation in the sector, awards in 21 categories were distributed under the "FICCI Chemicals and Petrochemicals Awards Scheme" at the India-Chem 2014.

- Eight sessions were held in the Conference to discuss topics relevant for the growth and development of the sectors such as Make in India, agrochemicals, infrastructure, PCPIRs, Regulatory and trade barriers, green technologies, etc.

Seminars/ Conferences

10.6 To promote the development of Indian Chemical Industry, the Department of Chemicals and Petrochemicals has been supporting various workshops/ conferences/ seminars, both at national and international level, being organized by premier industry associations such as ICC, CII, FICCI, DMAI, AMAI. In addition, the Department has also organized, with the help of these industry associations, a number of workshops/ seminars in identified critical/ thrust area of chemical industry such as chemical safety, security, health and environment. Financial support for organization of these events is provided form Chemical Promotion and Development Scheme (CPDS). During 1.4.2014 to 31.12.2014, 27 such events/ workshops have been sponsored.

10.7 Department sanctioned an amount of ₹ 49.50 lakh to CIPET for holding Technical Seminars on "Promoting Programmes on creating awareness about positive attributes of the plastics / recyclable properties of plastics" at six different places during the year 2014-15. CIPET has conducted three seminars at Vijayawada on August 28, 2014, Sirsi, (Karnataka) along with LAKE-2014 on 13 -15 November, 2014 and at Jaipur (Rajasthan) on 19th December, 2014 respectively. Various stakeholders including officials from local Municipal Corporation, District Administration, State Government, Industry Associations, Students from Schools etc. attended the seminars.

10.8 Department in association with Federation of Chambers of Commerce and Industry (FICCI) organized a conference on "Potential of Downstream Plastics in Northern India with special focus to Plasticulture and Micro Irrigation" on June 24, 2014 at Chandigarh and National Conference on "New Horizons for Plastics Industry" on December 8-9, 2014 at Federation House, New Delhi.

10.9 Department has also supported various International plastic seminars / exhibitions / trade fairs such as Asian Polymer Association – 2014, an International Conference on Polymers, Plastivision Arabia at Sharjah, Chinaplas - 2014 at Shanghai, IPLEX-2014-at Hyderabad and PlastIndia-2015 held on 5 -10 February, 2015 at Gandhinagar, Gujarat.

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Chapter- 11

GENERAL ADMINISTRATION

ORGANISATIONAL SET UP OF THE DEPARTMENT

11.1 The main activities of the Department are policy making, sectoral planning, promotion and development of chemical and petrochemical industries. The administrative and managerial control of Public Sector Undertakings engaged in the manufacture of various chemicals and petrochemical items, as well as Autonomous Bodies engaged in this area are some of the other major functions of the Department.

11.2 The Department is headed by a Secretary to the Government of India who is assisted by a Special Secretary & Financial Adviser, two Joint Secretaries, one Economic Adviser and one Deputy Director General (organisation chart at Annexure IV).

EMPLOYMENT OF SCHEDULED CASTES/SCHEDULED TRIBES / PHYSICALLY HANDICAPPED IN THE MAIN SECRETARIAT OF THE DEPARTMENT OF CHEMICALS AND PETROCHEMICALS

11.3 The status of employment of Scheduled Castes/Scheduled Tribes/Physically handicapped in the main Secretariat of the Department of Chemicals & Petrochemicals, as on 31.12.2014 is as under:-

Group	Total No. of posts	Scheduled Castes	Scheduled Tribes	Physically Handicapped
A	35	6	-	1
B	69	5	2	1
C	78	20	3	1
TOTAL	**182**	**31**	**5**	**3**

11.4 Officers in Group 'A' include officers belonging to Central Secretariat Service, officers on deputation from the All India Services, Central Services and Technical posts of the Department. Appointment to posts in Group B and C is mostly done on the basis of nominations made by the Department of Personnel & Training, Department of Official Language and Ministry of Statistics & Programme Implementation.

RECORD MANAGEMENT

11.5 The Parliament has enacted "The Public Records Act, 1993" to regulate the management, administration and preservation of public records of the Central Government. The Central Government has also made rules to carry out the provisions of the Act. In terms of the provisions contained in Section 6(1) of the Act, the Under Secretary in-charge of General Administration has been nominated as Records Officer in the Department. A modernized Record Room has been set up for the Department, which is located in Udyog Bhawan.

Use of Hindi in official work

11.6 To ensure compliance with the statutory provisions and Presidential Orders on the Official Language Policy of the Government Hindi Sections are there in the Department and also in its' attached and subordinate offices. Work of Hindi Section has been supervised by Assistant Director (OL), Joint Director (OL) and Director under the guidance of Economic Adviser.

11.7 Hindi Fortnight was organized in the Department from 15th to 30th September 2014. During this period, seven competitions in Hindi Essay, Hindi Typing, Hindi Stenography, Noting and Drafting, Translation and Hindi Poetry Recitation were held. A noting-drafting competition exclusively for Group 'D' employees was also held.

11.8 Three meetings of the Departmental Official Language Implementation Committee under the chairmanship of Economic Adviser were held on 9th July, 2014, 10th September, 2014 and 26th November, 2014. The progress made in the use of Hindi was reviewed in these meetings and suggestions for further improvement were adopted for compliance.

11.9 During the year 2014-15 the First Sub Committee of the Parliament on Official Languages inspected the following offices of the Department :

- Central Institute of Plastics Engineering and Technology, Mysore- 16.01.2015.
- Central Institute of Plastics Engineering and Technology, Jaipur- 06.02.2015.

Meeting of the 1st Sub Committee of Parliament on Official Language at

Mysore on 16th January, 2015

11.10 Most of the documents like Annual Report, Performance Budget, Demand-for-Grants, Parliament Questions & Assurances, etc. and documents falling under Section 3 (3) of the Official Language Act, 1963 were issued in bilingual form. All letters received in Hindi were replied to in Hindi as per Rule 5 of the Official Language Rules, 1976. Efforts were made to progressively increase the use of Hindi in day-to-day official work as set out in the Annual Programme of the Department of Official Language.

11.11 Quarterly Progress Reports for each quarter during the year were compiled and sent to the Department of Official Language for inclusion in the database. Reports received from attached and subordinate offices were reviewed.

Activities of the Vigilance Set Up

11.12 The Department has a Chief Vigilance Officer (CVO) of the rank of Joint Secretary to look into the complaints/disciplinary proceedings against the employees of the Department as well as Board Level Officers of the Public Sector Undertakings (PSUs) and organizations under its administrative control. The CVO is assisted by a Director, Under Secretary, Section Officer and a Vigilance Section.

11.13 'Vigilance Awareness Week' was organized in the Department during the period 27th October, 2014 to 1stNovember, 2014. The 'Vigilance Awareness Week' was also organized in all the PSUs and autonomous bodies under the administrative control of the Department as per the guidelines of the CVC.

11.14 A one day Seminar/Workshop on the theme "Combating corruption – Technology as an enabler" was organized on 18th November, 2014. An expert from Central Vigilance Commission delivered a lecture on the theme. Chief Vigilance Officer (CVO) of the Department along with CVOs of Hindustan Organic Chemicals Limited (HOCL), Hindustan Insecticides Limited (HIL), Centre Institute of Plastic Engineering and Technology (CIPET) and officers of the Department attended the workshop.

GRIEVANCE CELL

11.15 A Grievance Cell is functioning in the Department of Chemicals and Petrochemicals which monitors all grievances related to this Department.

11.16 The online Grievance Redressal Mechanism, namely Public Grievance Redressal and Monitoring System (PGRAMS) is in operation w.e.f. 1st August 2005. A link has been provided on the home page of the Department's website to access PGRAMS as well as on the websites of the Institutions/Organizations under the Department of Chemicals & Petrochemicals. The Grievance Cell plays a vital role in the redressal of grievances of the common citizen. Information is regularly uploaded on the website of the Department of Chemicals & Petrochemicals and also on the websites of the Institution/Organizations falling under the purview of Department of Chemicals & Petrochemicals.

GENDER EQUALITY

11.17 In compliance with the Supreme Court judgment laying down certain guidelines to be followed for prevention of sexual harassment of female employees at work places, the Department has constituted Complaints Committee for redressal of complaints relating to sexual harassment of women. The Committee is functional since June 2002. The present Committee is headed by Economic Adviser.

RIGHTS OF DIFFERENTLY ABLED PERSONS

11.18 Department of Chemicals & Petrochemicals follows the guidelines issued by the Government of India from time to time regarding rights of the differently abled persons. Posts suitable for persons with disabilities have been identified as per the guidelines of Ministry of Social Justice & Empowerment.

11.19 Department of Chemicals & Petrochemicals is the cadre controlling authority

in respect of 06 technical posts in Group 'A' and 5 posts of Staff Car Drivers, 2 posts of Sr. Gestetnor Operators, 1 post of Dispatch Rider and 48 Multi Tasking Staff (MTS) posts in Group 'C'.

11.20 It is ensured that persons with disabilities have easy access to the physical environment and other facilities and services. The Information and Facilitation Centre of the Department has been set up specifically on the ground floor in Shastri Bhawan enabling easy and obstacle free accessibility for such persons. Senior officers of this Department are always available to listen to the problems, if any, of persons with disabilities.

RIGHT TO INFORMATION

11.21 As per the provisions of the Right to Information Act, 2005, all relevant information relating to the Department has been made available on the web site and it is updated regularly to keep it easily accessible and comprehensible to the public. Central Public Information Officers (CPIOs) have been nominated in the Department to provide information to the public and information seekers. In addition, officers of the rank of Joint Secretary and above have been designated as first Appellate Authority for the subjects they are concerned with. The online RTI portal is functional in the Department to facilitate information seekers to file RTI applications online.

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Annexure-I

PRODUCT-WISE INSTALLED CAPACITY & PRODUCTION OF MAJOR CHEMICALS

(In thousand MT)

Major Groups / Products	Installed Capacity			Production					Percentage growth	
	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11
I. ALKALI CHEMICALS										
Soda Ash	2951.00	2951.00	2951.00	2058.34	2298.76	2410.82	2437.79	2392.17	1.1	-1.9
Caustic Soda	3002.95	3052.40	3052.40	2237.62	2334.45	2408.73	2375.85	2391.66	-1.4	0.7
Liquid Chlorine	2160.84	2125.38	2125.38	1533.81	1637.62	1658.08	1673.25	1697.33	0.9	1.4
Total	**8114.79**	**8128.78**	**8128.78**	**5829.76**	**6270.82**	**6477.63**	**6486.89**	**6481.15**	**0.1**	**-0.1**
II. INORGANIC CHEMICALS										
AluminiumFlouride	18.16	18.16	18.16	11.55	9.80	7.31	6.70	5.40	-8.3	-19.5
Calcium Carbide	112.00	112.00	112.00	22.02	44.70	66.39	70.98	78.78	6.9	11.0
Carbon Black	610.00	610.00	610.00	419.43	452.44	447.67	404.02	406.41	-9.8	0.6
Potassium Chlorate	3.00	3.00	3.00	2.60	0.61	0.34	0.59	0.68	70.9	15.0
Titanium Dioxide	76.05	76.05	76.05	61.32	64.02	52.14	50.14	52.78	-3.8	5.3
Red Phosphorus	1.68	1.68	1.68	0.58	0.48	0.56	0.69	0.75	23.4	8.7
Hydrogen Peroxide	116.50	137.95	137.95	105.42	116.43	89.40	107.45	113.79	20.2	5.9
Calcium Carbonate	253.34	229.34	219.34	196.33	209.65	217.20	232.18	233.12	6.9	0.4
Total	**1190.73**	**1188.18**	**1178.18**	**819.26**	**898.12**	**881.01**	**872.75**	**891.70**	**-0.9**	**2.2**
III. ORGANIC CHEMICALS										
Acetic Acid	387.38	272.58	272.58	146.44	156.48	160.73	160.56	157.17	-0.1	-2.1
Acetic Anhydride	100.92	100.92	100.92	56.92	52.91	53.28	87.15	80.85	63.6	-7.2
Acetone	47.82	47.82	47.82	44.25	50.54	42.80	37.05	28.58	-13.4	-22.9
Phenol	77.13	77.13	77.13	71.59	79.81	65.93	59.92	46.39	-9.1	-22.6
Methanol	496.41	496.41	496.41	330.83	374.53	359.93	254.91	307.26	-29.2	20.5
Formaldehyde	423.29	448.79	448.79	261.29	266.61	263.80	275.36	268.29	4.4	-2.6
Nitrobenzene	76.80	76.80	76.80	63.41	72.41	74.46	83.70	76.51	12.4	-8.6
Maleic Anhydride	23.15	23.15	23.15	2.55	2.76	2.63	2.48	2.92	-5.6	17.4
Penta-Erithritol	21.70	22.00	22.00	11.21	11.73	11.40	11.49	12.18	0.8	5.9
Aniline	60.10	60.10	60.10	39.39	41.05	40.09	48.23	40.62	20.3	-15.8
ChloroMethanes	207.85	211.75	211.75	134.79	161.35	188.55	197.74	214.03	4.9	8.2
Isobutyle	3.75	3.75	3.75	4.07	2.27	1.94	6.63	6.08	241.5	-8.4
ONCB	30.00	30.00	30.00	15.44	16.69	13.74	15.41	16.82	12.2	9.1
PNCB	30.00	30.00	30.00	23.57	24.87	22.14	24.40	27.06	10.2	10.9
MEK	5.00	5.00	5.00	0.00	0.00	2.19	2.49	3.72	13.8	49.1
Acetaldehyde	183.51	183.51	183.51	59.82	32.26	65.39	76.27	79.66	16.6	4.4
Ethanolamines	10.00	10.00	10.00	7.00	3.45	8.73	7.05	11.20	-19.2	58.8
Ethyl Acetate	389.63	389.63	389.63	147.20	170.48	235.36	305.26	382.39	29.7	25.3
Menthol	31.70	33.05	33.65	14.41	15.74	15.80	19.70	18.34	24.7	-6.9
Ortho Nitro Toluene	16.40	16.40	16.40	13.80	14.20	11.14	10.68	12.31	-4.1	15.3
Total	**2622.54**	**2538.79**	**2539.39**	**1447.96**	**1550.12**	**1640.03**	**1686.48**	**1792.34**	**2.8**	**6.3**

Major Groups / Products	Installed Capacity			Production					Percentage growth	
	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11
IV. PESTICIDES AND INSECTICIDES										
Product										
D.D.T.	6.34	6.34	6.34	3.61	3.19	3.64	3.87	2.79	6.4	-28.0
Malathion	3.80	3.80	3.80	1.67	3.05	2.55	1.71	2.04	-33.0	19.3
Dimethoate	6.37	6.37	6.37	0.98	1.17	0.73	0.81	1.36	10.7	69.1
D.D.V.P.	3.68	3.68	10.68	3.87	3.48	4.64	4.41	5.52	-5.1	25.2
Quinalphos	2.80	2.80	2.80	0.99	1.01	1.00	1.35	1.74	34.7	29.3
Monocrotophos	12.84	12.84	12.24	5.74	9.93	9.59	8.25	4.27	-14.0	-48.2
Phosphamidon	3.20	3.20	3.20	1.00	0.29	0.06	0.02	0.05	-74.1	200.0
Phorate	7.10	7.10	8.10	7.12	7.67	7.01	5.75	6.85	-18.0	19.2
Ethion	4.02	4.02	4.02	1.51	1.92	1.33	0.94	1.51	-29.7	61.8
Endosulphan	12.39	0.00	0.00	9.90	11.49	1.35	0.00	0.00		
Fenvalerate	2.44	2.10	2.10	0.55	0.81	0.55	0.48	0.75	-12.4	56.8
Cypermethrin	12.89	13.29	14.49	8.70	7.02	10.16	7.53	9.01	-25.9	19.6
Acephate	11.86	11.86	16.58	14.90	16.49	17.11	15.76	14.51	-7.9	-8.0
Chlorpyriphos	36.34	36.10	34.20	9.31	8.72	6.05	7.52	9.54	24.3	26.9
Triazophos	2.00	1.50	1.50	1.06	1.75	0.78	0.93	0.99	18.8	6.8
Temephos	0.50	0.50	0.25	0.08	0.12	0.13	0.20	0.25	55.0	23.2
Deltamethrin	0.45	0.49	0.53	0.02	0.52	0.33	0.42	0.38	29.1	-9.2
Alphamethrin	0.33	0.33	0.35	0.00	0.31	0.32	0.32	0.31	-0.9	-1.6
Profenofos Technical	11.85	12.85	14.60	3.28	4.60	6.41	5.01	7.18	-21.9	43.3
Pretilachlor Technical	1.40	1.40	2.84	1.17	1.18	1.65	1.93	2.22	16.8	14.9
Lambda Cyhalothrin			0.60	0.13	0.21	0.29	0.43	0.55	48.4	27.9
Phenthoate	0.90	0.90	0.90	0.06	0.59	0.59	0.96	1.24	62.8	29.1
Permethrin Tech	1.20	2.04	1.80	0.24	0.46	1.17	0.83	1.14	-28.6	36.3
Imidacaloprid Tech	0.20	0.83	0.83	0.13	0.13	0.39	0.23	0.94	-42.1	315.4
Captan&Captafol	1.80	1.80	1.80	0.00	0.72	0.92	0.56	1.12	-39.4	99.6
Ziram(ThioBarbamate)	0.45	0.45	0.65	0.14	0.66	0.73	0.55	0.60	-25.3	9.3
Carbendzim(Bavistin)	1.41	1.12	1.12	0.38	0.59	0.43	0.34	0.31	-21.3	-9.7
Mancozab	42.76	69.76	71.56	31.49	26.05	43.46	45.30	57.82	4.2	27.7
Hexaconazole	0.50	0.50	0.50	0.35	0.36	0.39	0.36	0.50	-6.7	37.2
Metconazole	0.75	0.75	0.75	0.21	0.36	0.50	0.63	0.70	25.0	12.3
2, 4-D	24.20	22.00	22.00	10.64	12.60	15.03	15.44	17.90	2.7	16.0
Butachlor	0.50	0.50	0.50	0.24	0.29	0.20	0.18	0.04	-8.0	-78.7
Ethofumesate	1.65	1.25	1.65	0.56	0.82	1.14	1.22	1.01	7.1	-16.7
Thiamethoxam	3.00	3.00	3.00	1.82	1.49	1.63	3.12	3.31	90.8	6.2
Pendimethalin	2.00	2.00	2.00	0.00	0.00	0.00	1.03	1.71		65.1
Metribuzin	0.00	0.75	0.75	0.00	0.00	0.00	0.24	0.74		204.1
Triclopyr Acid Tech	0.36	0.30	0.30	0.23	0.30	0.10	0.21	0.20	102.0	-2.9
Isoproturon	6.25	6.25	6.25	2.91	3.68	2.53	4.05	2.35	60.3	-42.1
Glyphosate	9.26	9.26	9.26	4.66	4.86	5.25	6.12	8.48	16.5	38.5

Major Groups / Products	Installed Capacity			Production					Percentage growth	
	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11
Diuron	0.05	0.05	0.05	0.13	0.23	0.31	0.14	0.07	-55.7	-49.3
Atrazin	0.50	0.50	0.50	0.26	0.25	0.66	0.65	1.24	-1.4	89.7
Zinc Phosphide	1.10	1.10	1.32	0.92	0.86	0.89	0.60	0.65	-32.2	7.1
Aluminium Phosphide	3.90	3.90	3.90	3.25	2.82	3.14	4.16	4.47	32.6	7.4
Dicofol	0.15	0.15	0.15	0.02	0.05	0.08	0.05	0.07	-44.6	60.9
Total	**245.49**	**259.73**	**277.13**	**134.21**	**143.05**	**155.22**	**154.57**	**178.41**	**-0.4**	**15.4**
V. DYES AND DYESTUFFS										
Azo Dyes	18.55	18.81	19.04	12.68	13.96	12.10	12.72	13.46	5.1	5.9
Acid Direct Dyes(Other Than Azo)	45.08	45.08	45.08	15.34	20.36	19.00	17.58	19.00	-7.5	8.1
Disperse Dyes	55.21	55.21	55.21	25.22	28.72	29.44	28.26	29.21	-4.0	3.4
Ingrain Dyes	1.61	1.61	1.61	0.93	0.69	0.98	0.58	0.51	-41.0	-10.9
Oil Soluble (Solvent Dyes)	3.77	3.77	3.77	2.25	2.02	2.64	2.31	2.26	-12.4	-2.2
Optical Whitening Agents	22.30	37.30	37.30	12.36	15.02	14.14	18.17	23.74	28.5	30.6
Organic Pigment	71.48	66.56	76.68	49.90	56.35	51.77	44.46	68.67	-14.1	54.5
Pigment Emulsion	5.53	5.53	5.53	5.04	5.89	5.22	6.48	7.34	24.1	13.3
Reactive Dyes	157.96	158.12	158.42	73.20	76.88	83.38	87.60	95.42	5.1	8.9
Sulphur Dyes (Sulphur Black)	3.00	3.00	3.00	8.69	8.58	7.02	6.58	7.57	-6.3	15.0
Vat Dyes	2.98	2.98	2.98	1.70	1.94	1.69	1.38	1.60	-18.3	16.0
Inorganic Pigments	10.92	10.92	11.08	12.23	13.93	13.06	13.14	14.18	0.6	7.9
Other Dyes	2.65	2.65	2.65	0.44	0.55	0.47	0.30	0.66	-35.9	120.5
Total	401.04	411.54	422.35	219.98	244.87	240.88	239.53	283.60	-0.6	18.4
Total Major Chemicals (I to V)	**12574.59**	**12527.02**	**12545.83**	**8451.18**	**9106.98**	**9394.76**	**9440.23**	**9627.20**	**0.48**	**1.98**
Note : Some Pesticides producing units supply combined installed capacity.										

Annexure-II

PRODUCT-WISE INSTALLED CAPACITY & PRODUCTION OF MAJOR PETROCHEMICALS

(In thousand MT)

Major Groups / Products	Installed Capacity			Production					Percentage growth	
	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11
A : BASIC MAJOR PETROCHEMICALS										
I : SYNTHETIC FIBRES / YARN										
1. Polyester Filament Yarn (PFY) ($)	2252	2363	2354	1562	1789	1834	1833	1776	-0.04	-3.11
2. Nylon Filament Yarn (NFY) ($$)	20	20	20	30	33	30	22	24	-27.79	10.85
3. Nylon Industrial Yarn (NIY) ($$)	61	61	61	99	97	97	95	104	-1.62	9.21
4. Polypropylene Filament Yarn (PPFY) ($$)	8	8	8	9	6	7	6	6	-7.80	-8.15
Sub Total Yarn (1+2+3+4)	**2341**	**2452**	**2443**	**1700**	**1925**	**1968**	**1957**	**1910**	**-0.57**	**-2.37**
5. Acrylic Fibre (Inc. Dry Spun) (AF)	95	107	107	91	76	76	75	94	-1.88	25.89
6. Polyester Staple Fibre (PSF)	1174	1174	1135	980	1037	953	974	1010	2.18	3.70
7. Polypropylene Staple Fibre (PPSF)	5	31	31	3	4	4	8	23	97.62	185.61
8. Polyester Staple Fibrefil (PSFF)	72	72	81	54	53	49	51	56	5.30	10.50
9. Polyester Industrial Yarn (PIY)	22	22	22	5	13	14	15	15	5.96	-3.23
Total Synth. Fibre / Yarn	**3709**	**3858**	**3819**	**2835**	**3108**	**3065**	**3080**	**3109**	**0.51**	**0.94**
II : POLYMERS										
1. Linear Low Density Polyethylene (LLDPE)	No separate Capacity			683	897	1033	1012	1037	-2.05	2.45
2. High Density Polyethylene (HDPE)	No separate Capacity			856	887	1119	1177	1195	5.18	1.54
LLDPE/HDPE (Combined) ($$$)	**2735**	**2735**	**2735**	**1539**	**1784**	**2152**	**2189**	**2232**	**1.71**	**1.96**
3. Low Density Polyethylene (LDPE)	160	160	160	193	179	194	187	190	-3.94	1.84
4. Polyestyrene (PS)	462	462	462	270	296	288	290	270	0.51	-6.73
5. Polypropylene (PP)	2676	3116	3116	1617	1684	2209	2421	2648	9.61	9.37
6. Poly Vinyl Chloride (PVC)	1279	1279	1423	1110	1278	1296	1257	1367	-3.02	8.78
7. Expandable Polystyrene (EX-PS)	138	108	108	63	71	72	81	77	12.20	-4.27
Total Polymers	**7450**	**7860**	**8004**	**4791**	**5292**	**6211**	**6424**	**6784**	**3.42**	**5.61**

Major Groups / Products	Installed Capacity			Production					Percentage growth	
	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11
III : SYNTHETIC RUBBER										
1. Styrene Butadiene Rubber (SBR)	14	10	130	19	12	9	8	12	-9.55	46.26
2. Poly Butadiene Rubber (PBR)	74	74	74	73	76	79	77	81	-2.12	4.68
3. Nitrile Butadiene Rubber (NBR)	25	25	25	13	6	0	0	1		
4. Ethyl Vinyl Acetate(EVA)	23	23	23	0	11	12	11	11	-14.14	5.02
Total Synthetic Rubber	**136**	**132**	**252**	**106**	**105**	**100**	**96**	**105**	**-4.25**	**8.67**
IV : SYNTHETIC DETERGENT INTERMEDIATES										
1. Linear Alkyl Benzene (LAB)	532	547	547	464	475	454	455	406	0.27	-10.83
2. Ethylene Oxide (EO)	124	124	124	154	164	169	172	191	1.68	11.08
Total Synth. Detergent Intermediates	**656**	**671**	**671**	**618**	**638**	**623**	**627**	**597**	**0.65**	**-4.82**
V : PERFORMANCE PLASTICS										
1. ABS Resin	128	128	128	84	90	89	91	102	1.76	12.88
2. Nylon-6 & Nylon 66	20	20	23	18	21	18	19	20	4.91	5.72
3. Polymethyl Methacrylate (PMMA)	4	4	4	3	3	3	3	2	-13.07	-2.32
4. Styrene Acrylonitrile (SAN)	96	96	96	72	82	77	80	88	3.58	9.31
5. PET/Polyester Chips	1105	1105	1105	728	732	671	696	555	3.76	-20.30
6. PTFE (Teflon)	20	20	20	2	6	9	6	6	-35.45	6.15
Total Performance Plastics	**1373**	**1373**	**1376**	**906**	**934**	**867**	**894**	**773**	**3.12**	**-13.50**
TOTAL BASIC MAJOR PETROCHEMICALS										
(I+II+III+IV+V)	**13324**	**13894**	**14122**	**9255**	**10077**	**10866**	**11121**	**11368**	**2.35**	**2.22**
B : INTERMEDIATES										
I : FIBRE INTERMEDIATES										
1. Acrylonitrile (ACN)	41	41	41	39	38	38	33	37	-13.01	12.25
2. Caprolactum	120	120	120	123	123	118	99	85	-16.59	-14.05
3. Mono Ethylene Glycol (MEG)	1040	1040	1073	738	746	997	1061	1069	6.49	0.76
4. Purified Terephthalic Acid (PTA)	3753	3753	3753	2985	3191	3308	3494	3477	5.63	-0.50
Total Fibre Intermediates	**4954**	**4954**	**4987**	**3886**	**4097**	**4461**	**4687**	**4668**	**5.07**	**-0.41**
II : BUILDING BLOCKS										
OLEFINS										
1. Ethylene	3783	3783	3783	2515	2665	3320	3315	3346	-0.15	0.96
2. Propylene	2886	3326	3368	1859	1930	2528	2655	2897	5.04	9.08

Major Groups / Products	Installed Capacity			Production					Percentage growth	
	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	2012-13	2013-14
1	2	3	4	5	6	7	8	9	10	11
AROMATICS										
1. Benzene	1282	1283	1283	823	945	1002	1048	1031	6.06	-1.68
2. Toluene	258	258	258	137	128	132	108	120	-17.94	11.09
3. Mixed Xylene	891	891	898	176	125	207	200	248	-3.30	23.79
4. Ortho-xylene	420	420	420	358	400	390	444	412	14.08	-7.21
5. Paraxylene	2218	2218	2218	2223	2137	2394	2360	2264	-1.44	-4.07
Total Aromatics	**5069**	**5070**	**5077**	**3716**	**3736**	**4125**	**4161**	**4075**	**0.87**	**-2.07**
C : Other Petro-based Chemicals										
1. Butanol	**	26	26	8	18	22	14	5	-35.05	-61.94
2. C4-Raffinate	262	262	262	65	71	209	395	393	88.72	-0.64
3. Di-Ethylene Glycol	72	72	76	69	73	99	103	107	4.40	3.66
4. Diacetone Alcohol	9	9	9	9	4	5	3	0	-41.62	-100.00
5. Ethylene Dichloride (By Product)	593	593	593	445	454	435	316	278	-27.28	-12.14
6. 2-Ethyl Hexanol**	25	55	55	16	29	49	50	20	1.65	-59.44
7. Epichlorohydrine	10	10	0	7	8	9	11	0	24.75	-100.00
8. Iso-Butanol	**	3	3	3	3	2	2	1	-2.54	-67.02
9. Isopropanol (IPA)	70	70	70	62	67	71	70	76	-1.05	7.93
10. Methyl Methacrylate (MMA)	4	4	4	5	5	4	3	3	-27.32	3.63
11. Phthalic Anhydride (PAN)	309	309	362	232	253	250	254	264	1.96	3.65
12. Propylene Oxide (PO)	27	27	27	32	32	35	30	33	-14.41	12.05
13. Propylene Glycol (PG)	15	15	15	19	17	19	15	14	-22.37	-7.10
14. Polyvinyl Acetate Resin	0	0	0	4	2	0	0	0	-	-
15. Vinyl Acetate Monomer (VAM)	0	0	0	0	0	0	0	0	-	-
16. Vinyl Chloride Monomer (VCM) (By Product)	541	541	541	674	672	689	669	735	-2.95	9.95
17. Polyol	70	70	70	31	31	41	42	40	2.68	-4.96
Total	**2007**	**2066**	**2113**	**1679**	**1739**	**1940**	**1979**	**1970**	**1.99**	**-0.46**

($) : Includes capacity of all the units producing PFY, NFY, NIY and PPFY under broad banding as Synthetic Filament Yarn

($$) : Independent capacity of units producing only NFY, NIY and PPFY.
As the capacities of these products are also included in Synthetic Filament yarn, capacity utilization can not be worked out.

($$$) : Combined capacity to produce both LLDPE and HDPE and hence capacity utilization can not be worked out. However production is independent.

(**) : Combined capacity of 2-EH, Butanol & Iso-Butanol is given under 2 -EH

Annexure-III

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	As Approved by HPC
						100%	90%	80%	70%	60%				
1 Facilitate the growth and development of the chemical sector	14.00	Finalization and release of the National Policy on Chemicals	Sending the draft policy to the Cabinet for approval (subject to agreement among other Departments concerned)	Date	2.00	31/01/2014	05/02/2014	10/02/2014	20/02/2014	28/02/2014		N/A	N/A	
		Setting up of Technology upgradation fund.	Resubmitting the proposal to the Planning Commission	Date	1.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	31/01/2014	100.0	1.5	31/01/2014
		Action for "Development of Chemical Safety Rating System	Framing of a base draft paper in association with NACW, ICC, FICCI, CII, etc.	Date	0.50	30/09/2013	15/10/2013	31/10/2013	15/11/2013	30/11/2013	30/09/2013	100.0	0.5	30/09/2013
			Seeking the views of the stakeholders on the draft safety rating paper	Date	0.50	31/10/2013	15/11/2013	30/11/2013	15/12/2013	31/12/2013	31/10/2013	100.0	0.5	31/10/2013
			Holding of meetings and workshops on the rating system	Date	0.50	30/11/2013	15/12/2013	31/12/2013	15/01/2014	31/01/2014	10/01/2014	73.33	0.37	10/01/2014
			Submission of guidelines	Date	0.50	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	30/01/2014	100.0	0.5	30/01/2014
		Action for "Developing a framework for addressing skill management issues in the chemical sector"	Identification of chemical clusters and their training and skill development needs	Date	1.00	01/01/2014	15/01/2014	01/02/2014	15/02/2014	28/02/2014	01/01/2014	100.0	1.0	01/01/2014
			Formulation of a Concept Paper to address skill management issues	Date	1.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	30/01/2014	100.0	1.0	30/01/2014
		Coordination for India Chem Gujarat 2013	Participation by companies	Number	0.60	120	110	100	90	80	122	100.0	0.6	122
			Participation by countries in Exhibition	Number	0.60	12	10	8	6	4	14	100.0	0.6	14

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		As Approved by HPC
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	
						100%	90%	80%	70%	60%				
			Holding of concurrent events/ conference sessions in close partnership with stakeholders in industry relevant themes	Number	0.80	5	4	3	2	1	5	100.0	0.8	5
			Action/ success indicator for collection of feedback from the participants	% (>)	0.60	90	80	70	60	50	85	95.0	0.57	85
		Study on alternative to -DDT	Submission of interim report on the study	Date	1.20	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	21/01/2014	100.0	1.2	21/01/2014
		Holding International Conferences in India	Holding International Conferences	Number	1.00	4	3	2	1	0	4	100.0	1.0	4
		Taking up of matters of commercial importance such as imposition of anti-dumping and safeguard duties with other related Ministries	Prompt handling and follow up	Days since receipt of proposal	0.50	15	21	28	35	42	21	90.0	0.45	21
		Sensitizing the industry about their obligations under the Rotterdam Convention	Holding of two workshops	Number	0.60	2	1				2	100.0	0.6	2
		Sensitizing the industry about their obligations under the Stockholm Convention	Holding of two workshops	Number	0.60	2	1				2	100.0	0.6	2
2 Implementation of the Assam Gas Cracker Project	12.00	Progress of implementation of project	Financial progress in terms of cumulative capital expenditure, as a percentage of the business plan	%	4.00	90	85	80	70	60	40	0.0	0.0	66.44
			Mechanical Completion	Date	2.00	31/07/2013	31/08/2013	30/09/2013	31/10/2013	30/11/2013		N/A	N/A	

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		As Approved by HPC
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	
						100%	90%	80%	70%	60%				
			Commissioning	Date	2.00	31/12/2013	31/01/2014	28/02/2014	15/03/2014	31/03/2014		N/A	N/A	30/09/2014
		Ensuring timely financial releases	Release of capital subsidy	Date	1.00	30/09/2013	15/10/2013	31/10/2013	15/11/2013	30/11/2013	26/04/2013	100.0	1.0	26/04/2013
		Effective Project Monitoring as per schedule	Finalization of the report of the inter ministerial expert committee	Date	1.50	30/09/2013	15/10/2013	31/10/2013	15/11/2013	30/11/2013	30/09/2013	100.0	1.5	30/09/2013
			Meetings to Monitor & review project implementation	Number	1.50	6	5	4	3	2	9	100.0	1.5	9
3 Facilitate human resource development in downstream industries through CIPET	12.00	Expansion of Services of CIPET over corresponding period of the last year	Increase in number of students over previous year	%	2.00	10	8	6	4	2	8.6	93.0	1.86	8.6
			Achievement of target for skill development as given by National Skill Development Council	Number(>)	2.00	38940	38055	37170	36285	35400	39992	100.0	2.0	39992
			Increase in Revenue from technology support services over previous year	Rs. in lakhs	1.50	150	120	100	80	60	671	100.0	1.5	671
			Increase in output of ARSTPS and LARPM over the previous year (Assignments taken/ papers published or presented)	Number	1.50	11	9	7	5	3	21	100.0	1.5	21
		Financial support to CIPET for expansion of its infrastructure and improving technical capabilities	Release of Plan Funds (BE)	Date	3.00	01/03/2014	08/03/2014	15/03/2014	22/03/2014	28/03/2014	26/02/2014	100.0	3.0	26/02/2014

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		As Approved by HPC
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	
						100%	90%	80%	70%	60%				
		Conferring of status of Institute of National Importance to CIPET	Review of Draft Bill in Consultation with other Stake Holders	Date	1.00	31/10/2013	15/11/2013	30/11/2013	15/12/2013	31/12/2013	30/10/2013	100.0	1.0	30/10/2013
			Submission of Final Note for the Cabinet along with draft bill	Date	1.00	01/02/2014	15/02/2014	01/03/2014	15/03/2014	31/03/2014	22/01/2014	100.0	1.0	22/01/2014
4 Promoting investment and growth in the petrochemical sector	11.00	Monitoring of the PCPIRs	Constitution of Management Board by Govt. of Tamil Nadu after signing of MoA	No of months after signing	1.20	6	7	8	9	10		N/A	N/A	
			Submission of draft EIA report in respect of AP PCPIR	Date	1.10	30/09/2013	31/10/2013	30/11/2013	31/12/2013	31/01/2014		N/A	N/A	30/09/2013
			Preparation of draft Master Plan in respect of AP PCPIR	Date	1.10	30/09/2013	31/10/2013	30/11/2013	31/12/2013	31/01/2014	05/08/2013	100.0	1.1	05/08/2013
			Finalisation of Terms of Reference for EIA in respect of Orissa PCPIR	Date	1.10	01/10/2013	15/11/2013	30/11/2013	15/12/2013	31/12/2013		N/A	N/A	
		Promotion of PCPIRs	Road shows to promote PCPIRs	Number	2.20	4	3	2	1	0	4	100.0	2.2	4
		Independent evaluation of PCPIRs	Completion of evaluation of one PCPIR	Date	1.00	10/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014	31/03/2014	60.0	0.6	31/03/2014
		Taking up matters such as imposition of anti-dumping and safeguard duties with other related Ministries.	Prompt handling and follow up	Days since receipt of proposal	1.10	15	21	28	35	42	15	100.0	1.1	15
		Holding of Poly India - 2013	Increase in participation by State Governments over Poly India 2011	%	1.10	50	40	30	20	10	100	100.0	1.1	100
			Increase in business generated over Poly India 2011	%	1.10	50	40	30	20	10	11	61.0	0.67	11

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		As Approved by HPC
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	
						100%	90%	80%	70%	60%				
5 Compliance of Chemical Weapons Convention (CWC)	12.00	Timely submission of Declaration to National Authority-CWC	Electronic Submission of Annual Declaration of Anticipated Activities (ADAA) in latest version of Electronic Declarations Tool for National Authorities (EDNA)	Date	1.40	05/10/2013	10/10/2013	15/10/2013	20/10/2013	23/10/2013	30/08/2013	100.0	1.4	30/08/2013
			Electronic Submission of Annual Declaration of Past Activities (ADPA) in latest version of EDNA	Date	1.40	05/03/2014	10/03/2014	15/03/2014	20/03/2014	23/03/2014	20/02/2014	100.0	1.4	20/02/2014
			Percentage of discrepancies (including system generated warnings and errors) resolved by Dept. of Chemicals & Petrochemicals (on intimation from National Authority, CWC).	%	1.00	85	80	75	70	65	85	100.0	1.0	85
			Average no. of days for resolving discrepancies (from intimation by National Authority, CWC)	Number	1.00	3	4	5	6	7	3	100.0	1.0	2
		Spreading awareness on CWC	Holding awareness programs on CWC for industry	Number	1.80	15	12	10	8	6	12	90.0	1.62	12
			Conducting a survey to gauge the level of awareness on awareness programmes on CWC for industry	Date	1.80	31/12/2013	15/01/2014	31/01/2014	15/02/2014	28/02/2014	30/12/2013	100.0	1.8	30/12/2013
		Assist industry in compliance of CWC	Review of CWC Help Desks	Number	0.90	6	5	4	3	2	5	90.0	0.81	5

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	As Approved by HPC
						100%	90%	80%	70%	60%				
			Disposal of queries by the industry within 10 days by the Help Desks	%	0.90	90	80	70	60	50	90	100.0	0.9	90
		Framing of rules for registration and eligibility criteria under CWC (Amendment) Act, 2012	Issuance of notification of the rules	Date	1.80	01/03/2014	08/03/2014	15/03/2014	22/03/2014	31/03/2014	12/03/2014	84.29	1.52	12/03/2014
6 Operationalising the National Policy on Petrochemicals	10.00	Implementation of new schemes of Petrochemicals	Selection of National Awards for 2013-14	Date	2.00	31/12/2013	31/01/2014	28/02/2014	15/03/2014	31/03/2014	30/12/2013	100.0	2.0	30/12/2013
			Review of the performance of 2 (two) COEs of 11th Plan	Date	2.00	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	15/02/2014	90.0	1.8	18/02/2014
			Appraisal of the progress of 3 new Centres of Excellence being set up in the 12th Plan and reelease of next instalment of funds	Date	2.00	15/02/2014	28/02/2014	10/03/2014	20/03/2014	31/03/2014	15/02/2014	100.0	2.0	20/02/2014
			Release of 1st instalment of funds for four Plastic Parks in Assam, Madhya Pradesh, Orissa and Tamil Nadu	Number	2.00	4	3	2	1	0	3	90.0	1.8	3
		Promoting programmes on Plastic Waste management and recycling technologies	Awareness Programs / workshops, conferences / programs supported by DCPC	Number	2.00	4	3	2	1	0	14	100.0	2.0	14
7 Effective Coordination for implementation of rehabilitation measures for Bhopal Gas Leak Disaster Victimes	9.00	Disbursal of ex-gratia	Disbursement of ex-gratia to eligible victims identified till 30.9.2013 by O/o Welfare Commissioner	%	3.00	90	88	85	82	80	84	76.67	2.3	84
			Digitization of records of the O/o the Welfare	Number of cases	2.00	400000	350000	300000	250000	200000	400000	100.0	2.0	4

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		As Approved by HPC
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	
						100%	90%	80%	70%	60%				
			Commissioner	digitized										
			Holding of review meetings with O/o Welfare Commissioner and Govt. of Madhya Pradesh	No. of meetings	2.00	4	3	2	1	0	3	90.0	1.8	3
		Implementation of various schemes for rehabilitation of victims as per approved plan of action	Utilization of funds provided for implementation of schemes	%	2.00	60	55	50	45	40	47	74.0	1.48	47
8 Improving Performance of Hindustan Organic Chemicals Ltd. (HOCL)	1.25	Conducting a study for revival/restructuring of HOCL	Commissioning a study for revival/ restructuring of the company	Date	0.40	31/07/2013	15/08/2013	31/08/2013	15/09/2013	30/09/2013	29/05/2013	100.0	0.4	29/05/2013
			Examining the recommendation of the study and submitting for approval	Date	0.40	15/11/2013	30/11/2013	15/12/2013	31/12/2013	15/01/2014	14/11/2013	100.0	0.4	14/11/2013
			Taking up the matter with the concerned organisation/ Department for initiating action on the approved items	Date	0.45	31/01/2014	15/02/2014	28/02/2014	15/03/2014	31/03/2014	20/01/2014	100.0	0.45	20/01/2014
9 Improving Performance of Hindustan Insectides Limited (HIL)	1.00	Review of implementation of Action Plan and progress under MOU	Overseeing and monitoring of PSU's targets with respect to MOU targets	MOU comp score as per DPE(>)	1.00	1	1.5	2.5	3.5	4.5	1.38	92.4	0.92	1.38
10 Enhancing effectiveness of Institute of Pesticide Formulation Technology	1.00	Strengthening and Expansion of services	% Increase in Revenue as compared to previous year	%	1.00	20	18	15	10	5	20	100.0	1.0	20
11 Develop an innovation road map with incentives/disincentives	1.00	Identification of energy and material efficient technologies to reduce	Completion of study to identify energy and material efficient	Date	1.00	15/02/2014	01/03/2014	10/03/2014	20/03/2014	31/03/2014	14/02/2014	100.0	1.0	14/02/2014

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	As Approved by HPC
						100%	90%	80%	70%	60%				
for chemicals		effluents and emissions.	technologies to reduce effluents and emissions											
12 Improving performance of Hindustan Fluorocarbons Limited (HFL)	0.75	Review of implementation of Action Plan and progress under MOU	Overseeing and monitoring of PSU's targets with respect to MOU targets	MOU compo score as per DPE(>)	0.75	1	1.5	2.5	3.5	4.5	4.12	63.8	0.48	4.12
* Efficient Functioning of the RFD System	3.00	Timely submission of Draft RFD 2014-15 for Approval	On-time submission	Date	2.0	05/03/2014	06/03/2014	07/03/2014	08/03/2014	11/03/2014	05/03/2014	100.0	2.0	05/03/2014
		Timely submission of Results for 2012-13	On-time submission	Date	1.0	01/05/2013	02/05/2013	03/05/2013	06/05/2013	07/05/2013	01/05/2013	100.0	1.0	01/05/2013
* Transparency/Service delivery Ministry/Department	3.00	Independent Audit of implementation of Citizens'/Clients' Charter (CCC)	% of implementation	%	2.0	100	95	90	85	80		N/A	N/A	
		Independent Audit of implementation of Public Grievance Redressal System	% of implementation	%	1.0	100	95	90	85	80		N/A	N/A	
* Administrative Reforms	6.00	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	1.0	100	95	90	85	80	100	100.0	1.0	100
		Implement ISO 9001 as per the approved action plan	% of implementation	%	2.0	100	95	90	85	80	100	100.0	2.0	100
		Implement Innovation Action Plan (IAP)	% of milestones achieved	%	2.0	100	95	90	85	80	100	100.0	2.0	100
		Identification of core and non-core activities of the Ministry/Department as per 2nd ARC recommendations	Timely submission	Date	1.0	27/01/2014	28/01/2014	29/01/2014	30/01/2014	31/01/2014	27/01/2014	100.0	1.0	27/01/2014

* Mandatory Objective(s)

Performance Evaluation Report (2013-14)

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value					Achiev-ement	Performance		
						Excellent	Very Good	Good	Fair	Poor		Raw Score	Weigh-ted Score	As Approved by HPC
						100%	90%	80%	70%	60%				
* Improving Internal Efficiency/Responsiveness.	2.00	Update departmental strategy to align with 12th Plan priorities	Timely updation of the strategy	Date	2.0	10/09/2013	17/09/2013	24/09/2013	01/10/2013	08/10/2013	10/09/2013	100.0	2.0	10/09/2013
* Ensuring compliance to the Financial Accountability Framework	1.00	Timely submission of ATNs on Audit paras of C&AG	Percentage of ATNs submitted within due date (4 months) from date of presentation of Report to Parliament by CAG .during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25	100
		Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentage of ATRS submitted within due date (6 months) from date of presentation of Report to Parliament by PAC .during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25	100
		Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2012.	Percentage of outstanding ATNs disposed off during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25	100
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2012	Percentage of outstanding ATRS disposed off during the year.	%	0.25	100	90	80	70	60	100	100.0	0.25	100

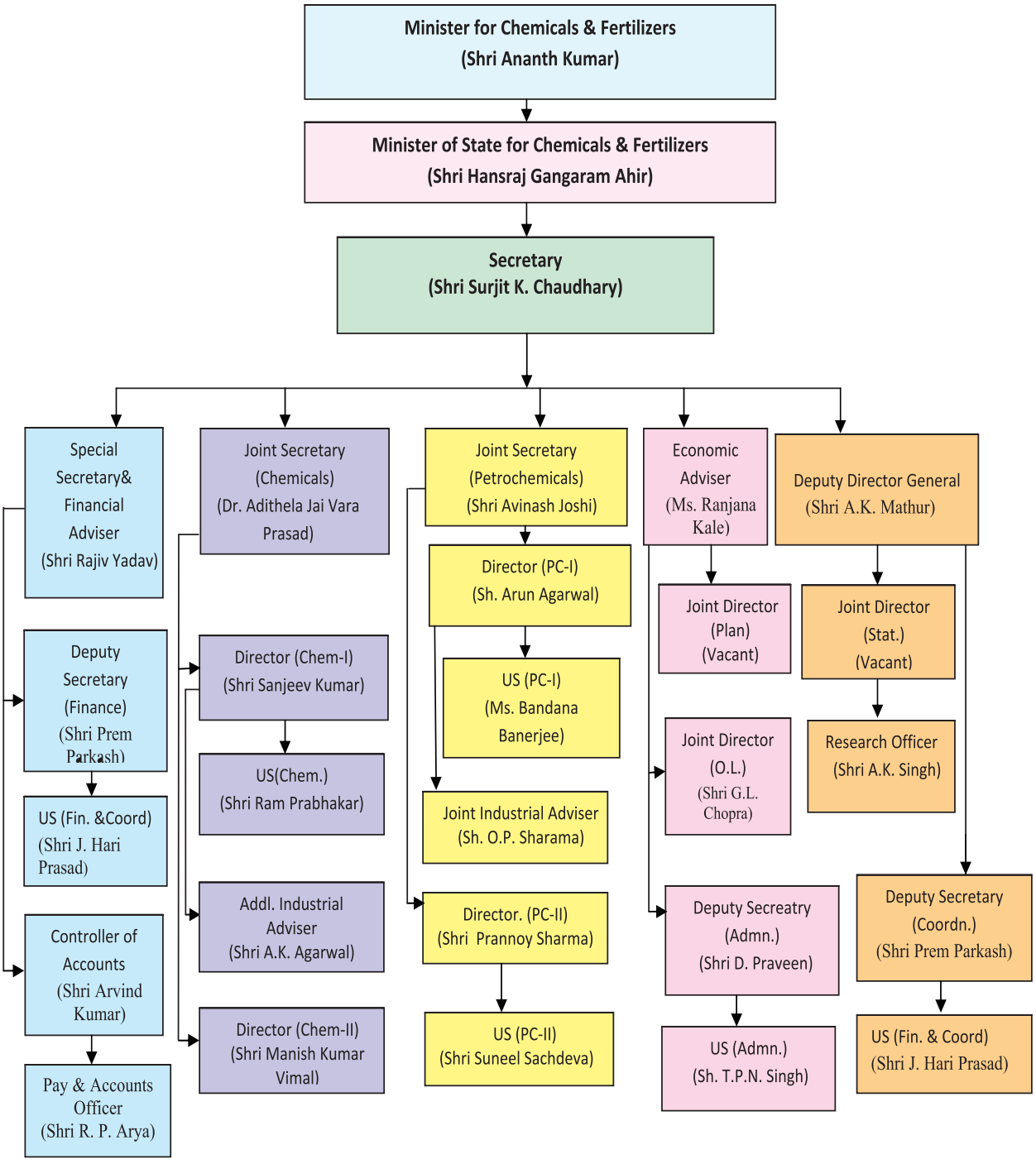
* Mandatory Objective(s)

Total Composite Score : 79.7

PMD Composite 81.3

Annexure IV

ORGANISATIONAL CHART OF DEPARTMENT OF CHEMICALS & PETROCHEMICALS
(as on 13.02.2015)



Chem: Chemicals ; PC: Petrochemicals; US: Under Secretary; O.L: Official Language; S&M : Statistics & Monitoring