CONTENTS

	CHAPTER	Page No.
I	Introduction	2-3
II	An Overview of the Chemical and Petrochemical Industries	4-35
III	Bhopal Gas Leak Disaster	36-43
IV	Public Sector Undertakings	44-49
V	Autonomous Institutions	50-59
VI	General Administration	60-64

	ANNEXURES	Page No.
I	Results Framework Document 2011-12	65-87
II	Product-Wise Installed Capacity & Production of Major Chemicals	88-90
III	Product-Wise Installed Capacity & Production Of Major Petrochemicals	91-93
IV	Organisation Chart	94

Chapter- I

INTRODUCTION

1.0 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 two functional divisions viz. Chemicals, and Petrochemicals. There are two PSUs in the chemical sector namely Hindustan Organic Chemicals Ltd. (HOCL) and Hindustan Insecticides Ltd. (HIL) 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), which are sanctioned financial grants by this Department.

1.4 Shri M.K.Alagiri and Shri Srikant Kumar Jena are the Minister of Chemicals and Fertilizers and Minister of State for Chemicals and Fertilizers, respectively. Shri K. Jose Cyriac was Secretary of the Department till 31 October, 2012. Shri Indrajit Pal assumed charge as Secretary on 07 January, 2013.

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 2011-12 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. A copy of the RFD for the year 2011-12 is at Annexure – I. The significant objectives/ actions pursued and monitored through the RFD 2011-12 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 Technology (CIPET), operationalisation 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

1.6 The Department's performance was reviewed by the High Power Committee on Government Performance and a composite score of 89.56 was achieved.

Chapter- II

AN OVERVIEW OF THE CHEMICAL AND PETROCHEMICAL INDUSTRY

An Overview of the Chemical Industry

2.1 The chemical industry, which includes basic chemicals and its products, petrochemicals, fertilizers, paints & varnishes, gases, soaps, perfumes & toiletries and pharmaceuticals is one of the most diversified of all industrial sectors covering thousands of commercial products. It plays an important role in the overall development of the Indian economy.

2.2 The chemical and petrochemical sector in India presently constitutes 14% of the domestic industrial activity. The DCPC in its Working Group Report has projected the growth of petrochemicals and chemicals at 12.6% and 10% respectively in 12th Five Year Plan. According to the United Nations Industrial Development Organisation (UNIDO), in terms of value added at constant 2000 prices, the Indian chemical Industry was the 6th largest in the world and 3rd largest in Asia in the year 2008. As per the latest available information from industry associations, the size of the Indian Chemical Industry in the year 2010 was US$ 108.4 Billion.

Chemical Sector- Production Trends

2.3 Chemical Industry is one of the oldest industries in India and contributes significantly towards industrial and economic growth of the nation. It provides valuable chemicals for various end products such as textiles, paper, paints and varnishes, leather etc., which are required in almost all walks of life. The Indian Chemical Industry forms the backbone of the industrial and agricultural development of India and provides building blocks for downstream industries.

2.4 The Indian Chemical Industry comprises both small and large-scale units. The fiscal concessions granted to the small-scale sector in mid-eighties led to establishment of a large number of units in the Small Scale Industries (SSI) sector. Currently, the Indian Chemical Industry is in the midst of a phase of major restructuring and consolidation. With the shift in emphasis on product innovation, brand building and environmental friendliness, this industry is

increasingly moving towards greater customer orientation. Even though India enjoys an abundant supply of basic raw materials, it will have to build upon technical services and marketing capabilities to face global competition and increase its share of exports.

2.5 As the Indian economy was a protected economy till the early nineties, very limited large-scale R&D was undertaken by the chemical industry to create intellectual property. The product patent regime came into force w.e.f. January 2005. Accordingly, the units have to be more innovative with state of the art R&D Establishments. This will help in development of newer molecules. With a number of scientific institutions, the country's strength lies in its large pool of highly trained scientific personnel.

2.6 India also produces a large number of fine and specialty chemicals, which have very specific uses and find wide usage as food additives, pigments, polymer additives, anti-oxidants in the rubber industry, etc.

2.7 In the chemical sector, 100 percent FDI is permissible. Manufacture of most chemical products inter-alia covering organic/ inorganic, dyestuffs and pesticides is delicensed. The entrepreneurs need to only file IEM with the Department of Industrial Policy and Promotion, provided no locational angle is applicable. Only the following items are covered in the compulsory licensing list because of their hazardous nature:

- Hydrocyanic acid & its derivatives
- Phosgene and its derivatives
- Isocynates and di-isocynates of hydrocarbons.

2.8 The Dyestuff sector is one of the important segments of the chemical industry in India, having forward and backward linkages with a variety of sectors like textiles, leather, paper, plastics, printing inks and foodstuffs. The textile industry accounts for the largest consumption of dyestuffs at nearly 70 percent. From being importers and distributors in the 1950s, it has now emerged as a very strong industry and a major foreign exchange earner. India has emerged as a global supplier of dyestuffs and dye intermediates, particularly for reactive, acid, vat and direct dyes. India accounts for approximately 7 percent of the world production.

2.9 Apart from chemical fertilizers, pesticides played an important role in the "Green Revolution" during the 1960s and 1970s. Indian exports of agrochemicals have shown an impressive growth over the last five years. The key export destination markets are USA, U.K., France, Netherlands, Belgium, Spain, South Africa, Bangladesh, Malaysia and Singapore. India is one of the most dynamic generic pesticide manufacturers in the world with more than 60 technical grade pesticides being manufactured indigenously.

2.10 Department of Chemicals and Petrochemicals has formulated a draft National Chemical Policy which has been posted on the Website of the Department to solicit comments from the stakeholders. The Policy is expected to lay a road map for the growth of the chemical sector in the future.

2.11 As per National Industrial Classification (NIC) 2004, chemical & chemical products are covered under the industry group 24. The description of product groups under this group is given in Table I:

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.]

2.12 According to estimates of the Central Statistics Office (CSO), chemical and chemical products sector (code 24 of NIC 2004) accounted for 2.12% of the GDP (at 2004-05 prices) in 2010-11, compared to 2.27% in 2009-10. The share of this sector in the GDP for manufacturing sector at 2004-05 prices was 13.4 % during 2010-11. The annual growth rate of GDP in this sector at 2004-05 prices was 1.3% as against 7.6% in manufacturing and 8.4% in the Indian economy in 2010-11 The corresponding figures of annual growth rates in these sectors

were 18.3%, 9.7% and 8.4% respectively in 2009-10. As per the estimates of the CSO, the size of the Indian chemical industry in terms of value of output in the year 2010-11 was Rs. 4,80,618 crore.

2.13 The actual production of major chemicals during the years 2006-07 to 2011-12 and upto September 2012 is exhibited in Table-II.

Table II: Production of selected major chemicals

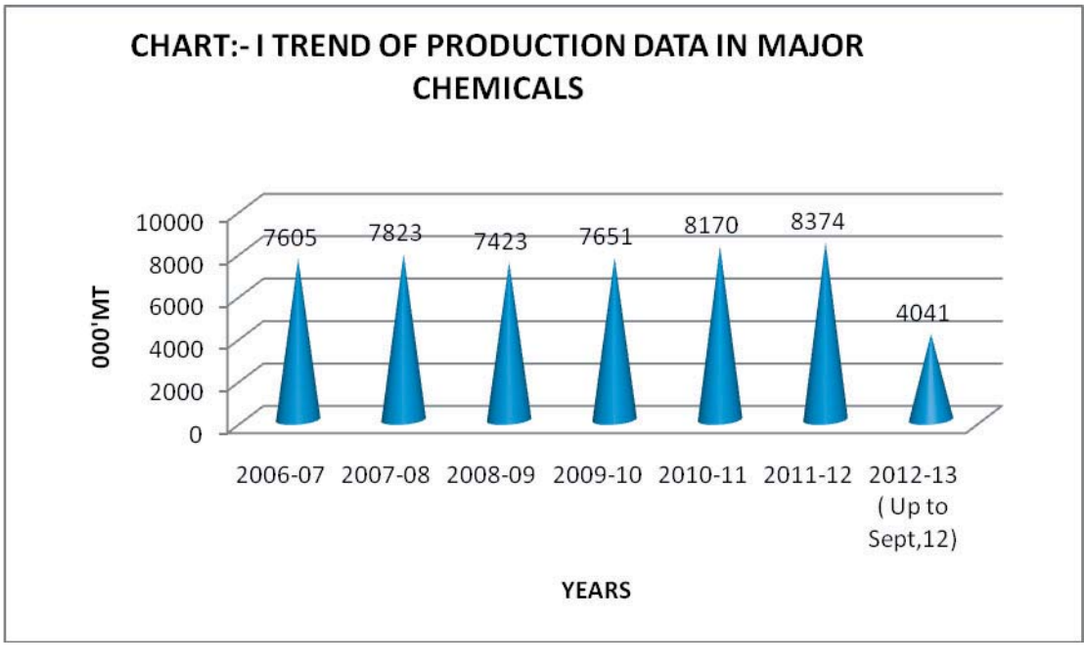
Figures in thousand Metric Tonne (MT)

Sector		PRODUCTION						
		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (Up to Sept,12)
Alkali Chemicals	Production	5269	5443	5442	5602	5981	6113	2973
	Growth Rate (%)	-3.8	3.3	0	2.9	6.8	2.2	
Inorganic Chemicals	Production	602	609	513	518	572	574	267
	Growth Rate (%)	10.7	1.1	-15.8	1	10.5	0.4	
Organic Chemicals	Production	1545	1552	1254	1280	1342	1396	656
	Growth Rate (%)	0	0.4	-19.2	2	4.9	4	
Pesticides (Tech.)	Production	98	102	105	104	111	120	60
	Growth Rate (%)	4.6	4.2	2.6	-1	6.7	8.4	
Dyes & Dyestuffs	Production	90	117	110	149	164	171	86
	Growth Rate (%)	29.5	30.5	-6.5	35.8	10.5	4	
Total Major Chemicals	Production	7605	7823	7423	7651	8170	8374	4041
	Growth Rate %)	-1.6	2.9	-5.1	3.1	6.8	2.5	

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 are given in Annexure-II.

2.14 From Table II it may be seen that the production of Alkali Chemicals account for more than 70% of the total production of major chemicals. The production of major chemicals in 2011-12 was 8374 thousand MT, compared to 8170 thousand MT in 2010-11 implying growth of 2.5%. The trend in production of major chemicals has been depicted in Chart-I.



Petrochemical Sector- Production Trends

2.15 The petrochemical industry mainly comprises synthetic fibres, polymers, elastomers, synthetic detergents intermediates and performance plastics. The main sources of feedstock and fuel for petrochemicals are natural gas and naphtha. Today, petrochemical products permeate the entire spectrum of items of daily use, ranging across clothing, housing, construction, furniture, automobiles, household items, toys, agriculture, horticulture, irrigation and packaging to medical appliances.

2.16 There are four naphtha based and three gas based cracker complexes in the country with a combined annual ethylene capacity of 3.75 million MT. Besides, there are four aromatic complexes also with a combined Xylene capacity of 2.8 million MT. The actual production of major petrochemicals during the years 2006-07 to 2011-12 and from April 2012 to September 2012 is exhibited in Table-III

Table-III: Production of Selected Major Petrochemicals

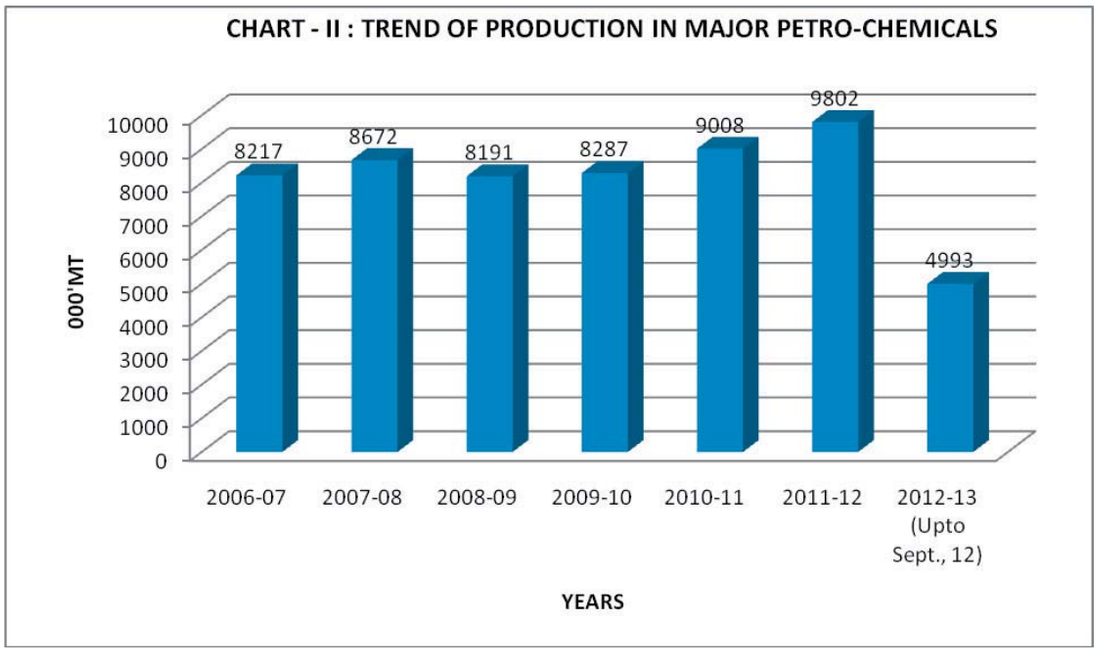
(Figures in thousand MT)

Group	Production / Growth Rate	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (Up to Sept., 12)
Synthetic Fibers	Production	2251	2524	2343	2600	2791	2697	1351
	Growth Rate (%)	18.1	12.1	-7.2	11	7.3	-3.4	
Polymers	Production	5183	5303	5061	4792	5292	6211	3198
	Growth Rate (%)	8.7	2.3	-4.6	-5.3	10.4	17.4	
Elastomers (S.Rubber)	Production	95	104	96	105	94	88	43
	Growth Rate (%)	4.4	9.5	-7.7	9.4	-10.5	-6.4	
Synth. Detergent Intermediates	Production	556	585	551	618	639	623	305
	Growth Rate (%)	0	5.2	-5.8	12.2	3.4	-2.5	
Performance Plastics	Production	132	156	140	172	192	183	96
	Growth Rate (%)	3.9	18.2	-10.3	22.9	11.6	-4.7	
Total Major Petrochemicals	Production	8217	8672	8191	8287	9008	9802	4993
	Growth Rate %)	10.3	5.5	-5.5	1.2	8.7	8.8	

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 are given in Annexure-III.

2.17 From Table II it may be seen that the production of polymers account for more than 60% of the total production of major petrochemicals. The production of major petrochemicals in 2011-12 was 9802 thousand MT, compared to 9008 thousand MT in 2010-11 implying growth of 8.8%. The trend in the production of major petrochemicals is exhibited in Chart - II:



Index of Industrial Production

2.18 The production performance of Chemicals & Chemical products is also used for performance in Indian industrial growth. The weight of chemical and chemical products (industry code 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 2012 stands at 163.6, which is 0.4% lower as compared to the level in the month of September 2011. The cumulative growth for the period April-September 2012-13 over the corresponding period of the previous year stands at 0.1%. The Index of Industrial Production for the Manufacturing sector for the month of September 2012 stands at 174.7, which is 1.5% lower as compared to the level in the month of September 2011 whereas the Index of Industrial Production for the Chemicals and Chemical products for the month of September 2012 stands at 127.3% which is 1.7% higher as compared to the level in the month of September 2011. The cumulative growth in General IIP during April-September 2012-13 over the corresponding period of 2011-12 has been 0.1%, as against the growth -0.3% in respect of Manufacturing and 2.3% in case of Chemical & Chemical products. The month wise Index of Industrial production during 20011-12 and 2012-13 is depicted in Table IV.

Table IV: Index of industrial production (Base : 2004-05=100)

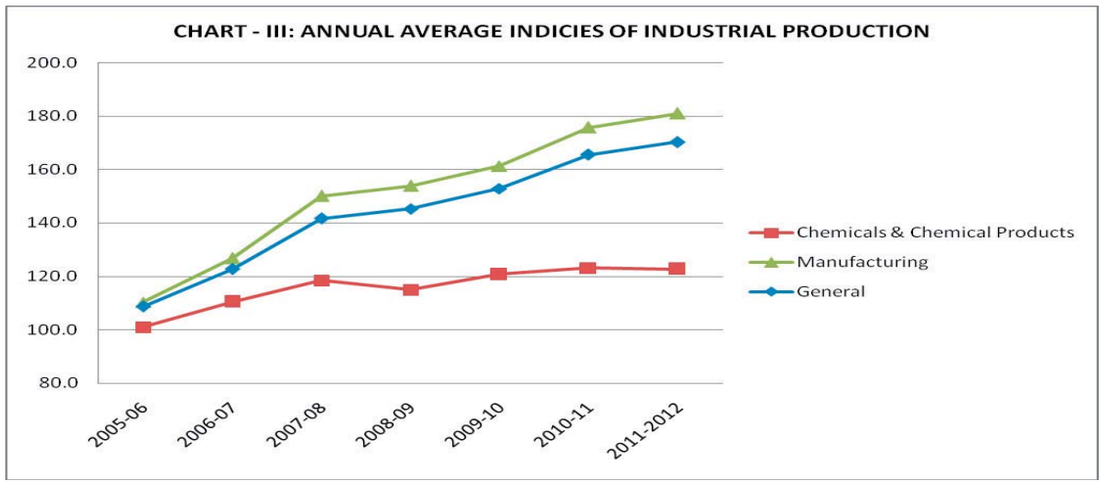
Period	Chemicals and chemical products	Manufacturing	General
Apr'11	123.5	176.1	166.2
May'11	126.0	174.5	166.2
Jun'11	122.8	184.0	171.4
Jul'11	121.6	177.4	167.2
Aug'11	122.5	171.7	161.4
Sep'11	125.2	177.4	164.3
Oct'11	118.1	165.9	158.3
Nov'11	118.4	177.8	167.5
Dec'11	129.6	192.6	180.3
Jan'12	118.6	188.6	177.6
Feb'12	117.9	186.8	175.2
Mar'12	127.6	198.7	187.6
Apr'12	122.0	173.0	164.1
May'12	124.6	179.0	170.3
Jun'12	121.3	178.1	168.0
Jul'12	127.9	176.7	166.9
Aug'12	135.4	175.9	165.1
Sep'12	127.3	174.7	163.6

Source: Ministry of Statistics and Programme Implementation

2.19 The behavior of IIP of chemicals and chemical products vis-à-vis General IIP and IIP in respect of manufacturing during 2005-06 to 2011-12 is depicted in Table V and Chart III.

TableV: Annual Average (April- March) Indices of Industrial Production (Base : 2004-05=100)

Particulars	Weight	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Chemicals & Chemical Products	100.59	101	110.4	118.4	115	120.7	123.1	122.7
Manufacturing	755.27	110.3	126.8	150.1	153.8	161.3	175.7	181
General	1000	108.6	122.6	141.7	145.2	152.9	165.5	170.3



Whole Sale Price Index

2.20 The annual rate of inflation based on monthly WPI released by the Office of the Economic Advisor, for 'all commodities' stood at 7.81% for the month of September, 2012 over September, 2011.The index for 'Food Articles' group rose by 7.86%, for 'Manufactured Products major group by 6.26% and for 'Chemicals and Chemical products' group by 7.47% during the same period. The weight of chemicals & chemical products in terms of movement in the WPI (Base Year: 2004-05) is 12.02 out of all commodities weight of 100. The month-wise Index of WPI during 20011-12 and 2012-13 is depicted in Table VI.

Table VI: Whole Sale Price Index (Base Year: 2004-05 =100)

Month	All commodities	Food Articles	Manufactured Products	Chemicals & Chemical products
April,11	152.1	186.8	136.6	131
May,11	152.4	186.3	137.4	131.8
June,11	153.1	188.8	137.9	132.2
July,11	154.2	192.8	138	132.7
August,11	154.9	193.7	138.4	133
September,11	156.2	197.2	139	133.8
October,11	157	199.3	139.6	135.2
November,11	157.4	196.5	140.4	135.6
December,11	157.3	190.9	140.9	136.5
January,12	158.7	191.1	141.5	137.8
February,12	159.3	192.4	141.8	137.9
March,12	161	197.1	142.6	139.2
April,12	163.5	207.2	143.8	140.3

May,12	163.9	206.1	144.6	141.4
June,12	164.7	209.4	145.3	141.9
July,12	164.8	212.2	145.7	142.3
August,12	166.6	211.4	146.9	143.2
September,12	168.4	212.7	147.7	143.8

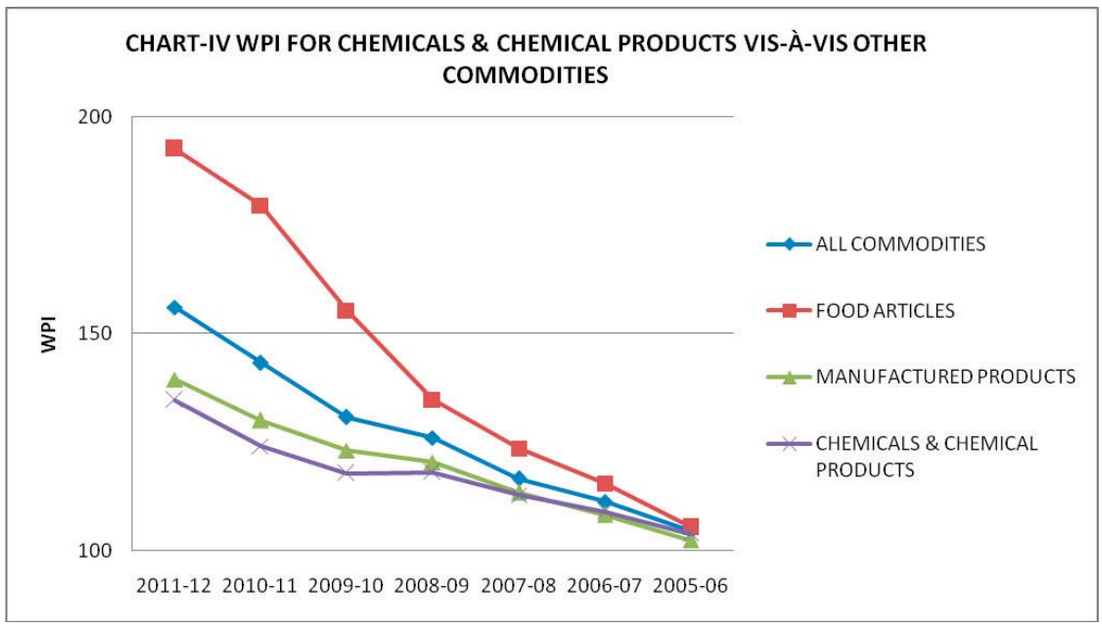
Source: Office of the Economic Advisor, Ministry of Commerce & Industry

2.21 Table-VII and Chart IV below show the WPI for chemicals & chemical products vis-à-vis all commodities, food articles and manufactured products during the years 2005-06 to 2011-12.

Table VII: Annual Average (April - March) Indices of Whole Sale Prices (Base : 2004-05=100)

Description	Weight	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06
ALL COMMODITIES	100	156.13	143.32	130.81	126.02	116.63	111.35	104.47
FOOD ARTICLES	14.34	192.74	179.63	155.39	134.8	123.57	115.52	105.38
MANUFACTURED PRODUCTS	64.97	139.51	130.07	123.05	120.38	113.39	108.22	102.42
CHEMICALS & CHEMICAL PRODUCTS	12.02	134.72	124.04	117.76	118.07	112.83	108.94	103.79

Source: Office of the Economic Advisor, Ministry of Commerce & Industry



2.22 Table VIII shows WPI of different commodity groups within Chemicals & Chemical products group during the years 2005-06 to 2011-12.

Table VIII: WPI of Chemicals & Chemical Products

DESCRIPTION	WEIGHT	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06
CHEMICALS & CHEMICAL PRODUCTS	12.02	134.7	124	117.8	118.1	112.8	108.9	103.8
BASIC INORGANIC CHEMICALS	1.19	138.2	126.3	125	126.2	117.1	109.5	106.4
BASIC ORGANIC CHEMICALS	1.95	135	124.4	115.7	118	112	111	103.6
FERTILIZERS	2.66	132.6	116.8	108.2	106.8	106.3	104.4	102.2
PESTICIDES	0.48	114.9	113.6	110.6	110.5	106.7	108.4	102.2
PAINTS, VARNISHES & LACQUERS	0.53	128.5	122.6	117.5	117.6	110.6	105.7	104.3
DYESTUFFS & INDIGO	0.56	122.5	116.3	111.9	115.5	115	110.6	102.3
DRUGS & MEDICINES	0.46	119.6	115.4	112.7	111.4	108.1	102.6	101.3
PERFUMES, COSMETICS, TOILETRIES ETC	1.13	145.3	138.5	134.8	129.2	119.1	111.1	104.5
TURPENTINE, PLASTIC CHEMICALS	0.59	136.1	123.4	117.4	116.9	115.3	115.2	109.6
POLYMERS INCLUDING SYNTHETIC RUBBER	0.97	130.4	123.4	116.3	119.6	115.5	108.8	103
PETROCHEMICAL INTERMEDIATEs	0.87	156.2	137.4	127.7	133.5	121	116.6	105.1
MATCHES, EXPLOSIVES & OTHER CHEMICALS	0.63	135.5	128.7	123.8	121.6	114.4	107.1	102.7

Source: Office of the Economic Advisor, Ministry of Commerce & Industry

International Trade

2.23 Trends in exports and imports of major chemicals and major petrochemicals during 2006-07 to 2011-12 are given in Table IX and Charts V and VI.

Table IX: Exports and Imports–Major Chemicals and Petrochemicals

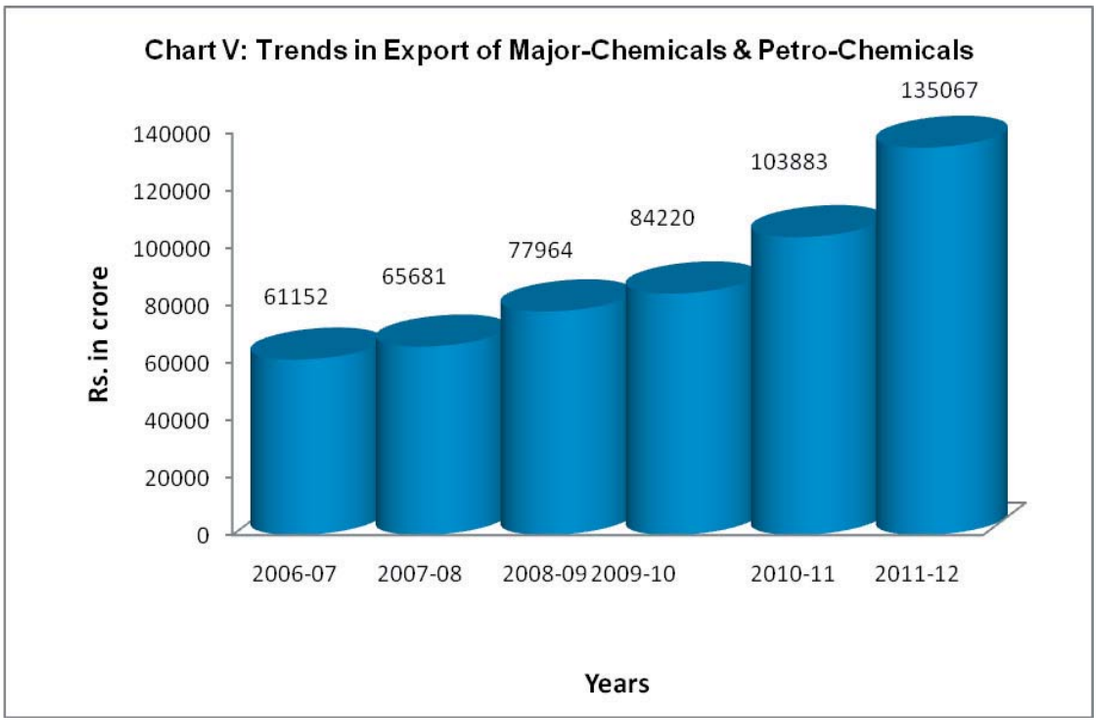
(Figures in Rs. crore)

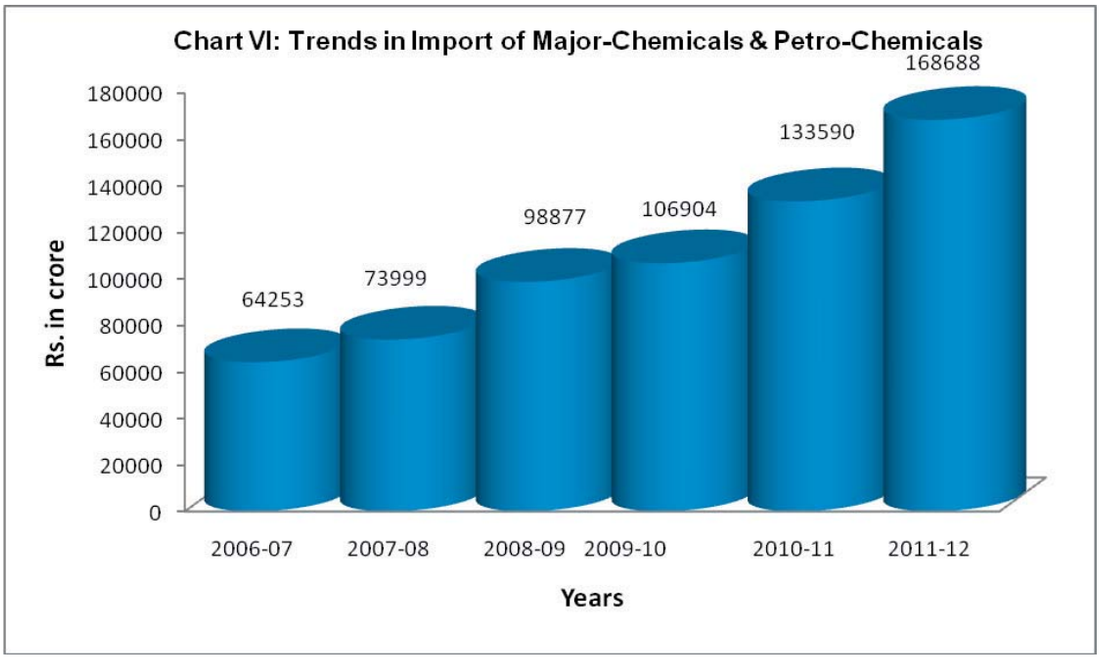
Items/Years	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
A: Total Exports	**571779**	**655864**	**840755**	**845534**	**1142922**	**1465959**
Of which:						
Chemicals @	39351	43482	53738	54948	67008	86690
Petrochemicals #	21801	22199	24226	29272	36875	48377
Total Chemicals & Petrochemicals	61152	65681	77964	84220	103883	135067
Share of Total Chem. & Petrochem in Total Exports (%)	**10.7**	**10**	**9.3**	**10**	**9.1**	**9.2**
B: Total Imports	**840506**	**1012312**	**1374436**	**1363736**	**1683467**	**2345463**
Of which:						
Chemicals@	47914	54422	74857	76682	94154	121887
Petrochemicals#	16339	19577	24020	30221	39436	46801
Total Chemicals & Petrochemicals	64253	73999	98877	106903	133590	168688
Share of Total Chem. & Petrochem in Total Imports (%)	**7.6**	**7.3**	**7.2**	**7.8**	**7.9**	**7.2**

@ Major Chemicals Include Inorganic Chemicals (Hs Code 28), Organic Chemicals (HS Code 29), Tanning or Dyeing (Hs Code 32) and Miscellaneous Chemical Products (Pesticides) (HS Code 38)

Major Petrochemicals include Plastic and Articles thereof (HS Code 39), Man-Made Filaments (HS Code 54) and Man-Made Staple Fibers (HS Code 55)

Source: Directorate General of Statistics & Commercial Intelligence (DGCIS), Kolkata





2.24 The import of major chemical and petrochemical products contributed 7.2% of total imports in 2010-11, compared to 7.8% in 2009-10 where as exports of major chemical and petrochemical products contributed 9.9% of total exports in 2010-11, compared to 10.0% in 2009-10 (Table IX).

Plan Schemes

2.25 Keeping in view the promotional, facilitatory and regulatory role of the Department in the development of chemical and petrochemical sectors, the public sector investment proposed through plan schemes is quite limited. A major plan scheme being implemented, besides the releases made to PSUs and autonomous institutions, is the Assam Gas Cracker Project, for which a Capital Subsidy of Rs. 4690 crore on fixed cost basis is to be provided by Department of Chemicals and Petrochemicals. When commissioned in December 2013, the project is expected to generate substantial employment; both direct as well as indirect, and will attract investments in setting up of downstream plastic processing industries. The Plan Schemes of the Department also support the Public Sector Undertakings and Autonomous Bodies attached to the Department.

2.26 Scheme-wise outlays of plan schemes of the Department of Chemicals and Petrochemicals for the 2012-13 (BE and RE) and the outlay for 2013-14 are given in Table X: -

Table X: Scheme-wise Plan Outlay of the Department

(Rs. crore)

Sr. No.	Name of the Scheme	AP (2012-13) (BE)	AP (2012-13) (RE)	AP (2013-14) (BE)
I	**Project Based Support to PSUs**	**40.00**	**28.73**	**10.00**
1.1	Hindustan Organic Chemicals Ltd. (HOCL)	24.00	24.63	10.00
1.2	Hindustan Insecticides Ltd. (HIL)	16.00	4.10	-
II	**Support to Autonomous Bodies**	**117.00**	**44.34**	**145.30**
2.1	Central Institute of Plastic Engineering & Technology (CIPET)	110.00	40.00	140.96
2.2	Institute of Pesticides Formulation Technology (IPFT)	7.00	4.34	4.34
III	**Other Ongoing Schemes**	**1600.00**	**1563.93**	**1044.70**
3.1	Assam Gas Cracker Project	1552.00	1552.00	1000.00
3.2	Chemical Promotion & Development Scheme (CPDS)	10.00	2.00	3.00
3.3	Chemical Weapons Convention (CWC)	1.50	1.00	1.50
3.4	IT/Sectt.	0.30	0.30	0.70
3.5	Other New Schemes of Petrochemicals	36.20	8.63	39.50
	Total	**1757.00**	**1637.00**	**1200.00**

2.27 During the period of Annual Report, there was increase in the allocation of funds for the effective implementation of the schemes of the Department from the previous year. During the current year, i. e. 2012-13, the first year of the XII Five Year Plan, the BE allocation of Rs.1757.00 crore was reduced to Rs. 1637.00 crore at RE stage. The following tables present Plan and Non-Plan Revised Estimates of Budget during 2012-13 and Actuals 2011-12.

Table XI: Actuals 2011-12 & RE 2012-13 (Plan)

(Rs. in crore)

S.No.	Name of the Schemes	Actuals 2011-12	RE 2012-13
1	Secretariat	0.35	0.30
2	New Schemes of Petrochemicals	4.61	8.63
3	Assam Gas Cracker Project	875.44	1376.30
4	CPDS	1.34	2.00
5	CWC	0.74	1.00
6	IPFT	0.89	4.34
7	CIPET	43.79	40.00
8	HIL	0	4.10
9	HOCL	0	24.63
10	NER	0	175.70
	Total	**927.16**	**1637.00**

Table XII: Actuals 2011-12, RE 2012-13 & BE 2013-14 (Non-Plan)

(Rs. in crore)

S.No.	Name of the Schemes	Actuals 2011-12	RE 2012-13	BE 2013-14
1	Secretariat	11.63	12.33	13.22
2	CIPET	0.53	0	0
3	Assam Gas Cracker Project	0	0	0.01
4	Bhopal Gas Leak Disaster	322.49	94.79	126.59
5	CWC	0	0	0.01
6	IPFT	3.29	3.1	3.15
7	PCL	1.1	0	0.01
8	HIL	0	0	0.01
9	HOCL	0	0	0.01
	Total	**339.04**	**110.22**	**143.01**

2.28 As on 01.04.2012, UCs for Rs. 4.19 crore are pending. Efforts are being made to liquidate these. Regarding Audit by C&AG, no PAC para is pending. In case of C&AG (Commercial) paras, 4 paras are pending for which efforts are being made to liquidate at the earliest.

Petroleum, Chemical Petrochemical Investment Regions (PCPIRs) Policy

The Policy

2.29 The PCPIR Policy aims to encourage the adoption of a holistic approach to promote the petroleum, chemical and petrochemical sectors in an integrated and environment friendly manner on a large scale. Such integrated PCPIRs would reap the benefits of co-siting, networking and greater efficiency through use of common infrastructure and support services.

2.30 The PCPIR is a specifically delineated investment region having an area of about 250 sq kms (with minimum 40% of the designated area earmarked for processing activities). This region will be a combination of production projects, public utilities, logistics, environmental protection, residential areas and administrative services.

2.31 The Cabinet Committee on Economic Affairs (CCEA), in its meeting held on 8th March, 2007 approved the Policy Resolution for setting up of PCPIRs. As per the PCPIR Policy, Government of India is to ensure availability of external physical infrastructure linkages to the PCPIR including Rail, Road (National Highways), Ports, Airports and Telecom in a time bound manner. This infrastructure will be created/ upgraded through Public Private Partnerships to the extent possible and the Central Government will provide necessary viability gap funding (VGF) through existing schemes. The Government of India notified the Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR) Policy on 4th April, 2007

Current Status

2.32 Since February 2009, Govt of India has approved the setting up of PCPIRs in Dahej in Gujarat, Paradeep in Orissa, Vishakhapatnam – Kakinada region in Andhra Pradesh and Cuddalore – Nagapattinam districts of Tamil Nadu. Memoranda of Agreement have been signed with all the State

Governments (except Tamil Nadu, which is presently under consideration of the State Government), duly outlining the respective commitments and milestones with timelines for implementation. These PCPIRs are in various stages of implementation and the progress is being monitored by a High Level Monitoring Committee chaired by Secretary (C&PC). The PCPIRs have been showcased and promoted both at the domestic and international levels along with the State Governments and committed investors through road shows, in exhibitions, seminars, conferences, etc.

2.33 Once fully established, these PCPIRs are expected to attract Rs. 7,62,894 crore of investment. Till date investments worth approximately Rs.1,80,000 crore have been made in these regions. Of the total infrastructure worth Rs. 53468.7 crore expected to be created in the PCPIRs, Government of India's contribution would be Rs. 4646.30 crore. The PCPIRs are projected to generate employment for approximately 33.96 lakh people. The PCPIR wise details in this regard are summarized in Table XIII while paragraph 2.34 summarises progress made in each of the PCPIRs:

Table XIII: Fact sheet on PCPIRs

State	Investment Expected (in Rs crore)	Actual as on 31.12.2012 (in Rs. crore)	Infrastructure Investment (in Rs crores)			Employment (in lakh persons)
			Total	GoI Share		
				VGF	Budgetary support	
Andhra Pradesh	3,43,000	9688.92	18,731	1206.8	-	11.98
Gujarat	50,000	1,29,379	7,749.70	80.5	-	8
Orissa	2,77,734	35,000	13,634	716	-	6.48
Tamil Nadu	92,160	6,090	13,354	1143 .0	1500	7.5
Total	**7,62,894**	**180157.92**	**53468.7**	**3146.3**	**1500**	**33.96**
				4646.3		

2.34.1 Gujarat PCPIR:

- The Gujarat Infrastructure Development Corporation (GIDC) has spent Rs. 1722 crore for provision of infrastructure in the PCPIR.
- Rs. 6,899 crore has been spent by all agencies on creation of infrastructure in the region.
- Additional expenditure of Rs. 1500 crore by GIDC is under way in water supply and development of roads.
- 20,000 people have found employment in the Gujarat PCPIR.
- The Anchor Tenant, viz. M/s OPaL has completed around 62% of the mechanical work of the Cracker at a cost of Rs. 8707 crore and the C2/C3 Extraction Unit is ready for commissioning.
- A PCPIR Regional Development Authority has been constituted under the Special Industrial Regions Act.
- Final Draft Development Plan for the region has been approved by the Apex Authority.
- Final EIA report has been submitted by the consultants, NEERI on 05.10.2012.
- The Energy and Resources Institute (TERI), New Delhi has conducted a socio-economic study for all 44 villages of the PCPIR.

2.34.2 Andhra Pradesh PCPIR:

- Master Planning has been completed by M/s LEA Associates and Draft Development Plan has been submitted.
- Final EIA report is expected to be submitted to MoEF by April, 2013.
- Ministry of Environment & Forests has approved the EIA and accorded Environmental Clearance and CRZ clearance for laying Marine Disposal Pipeline for the APSEZ (which is part of the PCPIR) at Vishakhapatnam.
- Employment for 90,000 persons has been generated so far.
- Govt. of A.P. has also sanctioned Rs. 40.00 crore towards part of land acquisition cost for widening of three roads for NH connectivity to PCPIR under CRF-EI scheme of Ministry of Road Transport & Highways.
- Govt of A.P. has entrusted the work of six laning of the Vishakhapatnam-Rajahmundry stretch to M/sTransstroy Consortium Pvt. Ltd. Agreement

was entered between NHAI and the Consortium in April 2012.

- Minister of Petroleum & Natural Gas announced in Hyderabad in January, 2013 that a 15 MMTPA Greenfield refinery cum Cracker complex would be set up by HPCL at a cost of Rs. 40,000 crore in the PCPIR.

2.34.3 Orissa PCPIR:

- Rs. 22,000 crore has been invested by the Anchor Tenant viz. Indian Oil Corporation Limited (IOCL). IOCL's refinery project is expected to be completed by 2014.
- Special Purpose Vehicle named the Paradeep Investment Region Development Ltd has been formed.
- A preliminary Master Plan has been prepared by IL&FS IDC & L&T Ramboll. Selection of consultant for preparation of Draft Development Plan is under way. A water availability study for the PCPIR is being conducted through WAPCOS.
- Bidding is underway for development of NH 5 A, and selection of consultant for development of the greenfield corridor between Dhamra and Astrang ports is being undertaken.
- A 1320 MW thermal power plant by SPI Ports (P) Ltd is being set up. Surat – Paradeep Gas Transmission Pipeline - an interstate Gas transmission pipeline is being implemented by GAIL.
- A JV agreement with Industrial Development Corporation of Orissa (IDCO) proposed by GAIL for development of gas based infrastructure in the State is under active consideration of the State Government. IOCL has also signed an MoU with Dhamra Port Company for a 5 MMTPA LNG Terminal.

2.34.4 Tamil Nadu PCPIR:

- The Anchor Tenant, Nagarjuna Oil Corporation Limited (NOCL) has already invested Rs. 6090 crore in its refinery expansion project.
- The date of commissioning of the first phase of the project is now fixed as July, 2014. The capacity of the project has been increased to 12 MMTPA with a corresponding increase in cost to Rs. 22,103 crore.
- A Memorandum of Understanding has been signed between Engineers

India Limited and Tamilnadu Industrial Development Corporation for the development of the PCPIR.

- 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.

2.35 In 2009, Government of India had also approved the setting up of a PCPIR in Haldia in West Bengal. Subsequently, the Government of West Bengal intimated its decision to opt out of the PCPIR project planned in Haldia as it has decided to develop an Industrial Park, Power Plant and an Eco Tourism Park on the Nayachar Island in Haldia, Purba Medinipur District. This intimation by the State Government has since been considered by the Union Cabinet, which has approved the decision of the State Govt.

2.36 In order to take measures to improve the pace of growth of the PCPIRs and improve their viability, based on an in depth examination of the policy and wide ranging consultations with industry, State Governments and other interested parties, the following specific recommendations have been made by the Department for consideration and recommendation by the High Powered Committee:

i) In future PCPIRs to be sanctioned, there must be clear and unconditional commitments from the anchor tenants in the form of MoUs with the State Government concerned duly outlining the type of investment, approximate amount and indicative timelines. There should also be tripartite MoUs among the DCPC, the State Government and the anchor tenant. In case of any subsequent deviation in the investment proposed by the anchor tenant, a revised approval of the authority sanctioning the PCPIR (CCEA) will be necessary.

ii) There should be Nil customs duty on hydrocarbon feedstock imported by anchor tenants in PCPIRs with a commitment for maintaining this duty structure over a ten year period.

iii) Reduction of customs tariff (consequent to India's commitment in Free Trade Agreements – FTAs), on some of the important petrochemical products that will be manufactured in PCPIRs acts as a deterrent to fresh investments in

PCPIRs. It is recommended that in the FTAs to be signed in future and in case of review of existing FTAs, the custom duty on such products should not be reduced any further.

iv) Provision of 50% GoI funding of items such as:

- Preparation of Master Plan;
- System for treatment, recycling and disposal of hazardous solid waste and liquid chemical waste in PCPIRs;
- Desalination and water recycling plants in PCPIRs;
- State of the Art Disaster Prevention and Management Centre;
- One Escape Route in each PCPIR to facilitate diversion of population/ traffic in the event of any contingency; and
- Infrastructure projects such as roads connecting PCPIRs in neighbouring States (Orissa, A.P. and Tamil Nadu) as national projects.

v) As envisaged in the National Manufacturing Policy (NMP), timelines will be defined in respect of all clearances required for setting up a PCPIR. In case the decision is not taken within the specified timeline, the clearance will be 'deemed' to have been given on expiry of the time line. Along the same lines as the National Investment and Manufacturing Zones (NIMZs) under the NMP, environmental clearances for PCPIRs under the EIA Notification, 2006 shall be considered on a high priority.

vi) There will be several components in new PCPIRs and existing PCPIRs, where central funding is possible through the Industrial Infrastructure Development Scheme of DIPP, JNNURM of M/o UD etc. When the State Government suggests components in PCPIRs to be funded through such schemes of GOI, the sanctioning Ministry in GOI should give appropriate priority to these.

2.37 The above recommendations are likely to be considered by the High Powered Committee chaired by Cabinet Secretary shortly.

National Policy on Petrochemicals

2.38 In pursuance of the National Policy of Petrochemicals, Government formulated three schemes viz. (a) National Awards for Technology Innovation in various fields of Petrochemicals and downstream Plastic Processing Industry;

(b) Setting up of the Centres of Excellence (CoE) in the field of Petrochemicals; and (c) Setting up of Plastic Parks

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

2.40 Based on the experience gained in the first year of its implementation the application and evaluation process was modified so as to increase the numbers of participants in the 2nd National Award for Technology Innovation for the year 2011-12 Department of C&PC received 429 nominations for the eight categories and three sub-categories of the scheme in the year 2011-12. After going through an intensive process of screening and evaluation, 15 nominations were selected for the National Awards for Technology Innovation 2011-12. Further, considering the large number of nominations received, 10 nominations were selected as 'Runners up' for the National Award for Technology Innovation 2011-12. The function to facilitate the awardees was held on 26th March, 2012 in New Delhi. The scheme has been approved for continuation in the 12th Five Year Plan (2012-17) with Plan support of Rs. 3.15 crore at the rate of Rs. 63 lakh per year during XII Plan.

2.41 Setting up of Centres of Excellence – The scheme aims at improving the existing petrochemical technology and research in the country and to promote development of new applications of polymers and plastics. In the year 2010-11, CIPET and National Chemical Laboratory, Pune were identified for setting up of Centres of Excellence. An amount of Rs. 2 crore each was released in the year 2010-11. Department constituted an Expert Panel in September, 2011 to review the performance of selected CoEs. The Expert Panel appreciated the efforts made by the team at NCL, Pune and CIPET, Chennai and felt that the progress of the project has been good and as per specified time frame. The Panel also recommended proceeding with the next phase of work. Based on the above recommendations of the Expert panel, the second installment amounting to Rs. 2 crore was released to CIPET, Chennai in Jan, 2012 and NCL Pune in Feb,

2012. The scheme has been approved for continuation in the 12th Five Year Plan (2012-17) with Plan support of Rs. 22.00 crore during XII Plan.

2.42 Setting up of Plastic Parks – The Scheme aims at setting up of need based Plastic Parks, and ecosystems with state of the art infrastructure and enabling common facilities to assists the sector to move up the value chain and contribute more to the economy. The Programme Manager for implementation of the Scheme was appointed. The operational guidelines for implementations of the scheme were firmed up. A meeting of the Scheme Steering Committee (SSC) was held under the Chairmanship of Secretary on 24th Feb, 2012 to consider the preliminary proposals from Assam, Madhya Pradesh, Tamil Nadu, Gujarat, Orissa, West Bengal and Punjab. It was decided to grant in-principle approval to the 4 proposals from Tamil Nadu, Madhya Pradesh, Assam and Orissa on the clear understanding that the first 2 projects that submit the DPR, complete in all respects, will be treated as those approved in the current Plan Period and the other 2 will be considered for approval only in the next Plan period, as per the prevailing terms and conditions. However taking into consideration the lack of preparedness and bottlenecks faced in the preparation of DPRs, the scheme Steering Committee in its meeting held on 19.10.2012 decided to extend the prescribed time limit for submission of DPR for final approval by six months.

Assam Gas Cracker Project

2.43 The Assam Gas Cracker Project was initiated in pursuance of the Memorandum of Settlement signed between Central Government and All Assam Students Union (AASU) and All Assam Gana Parishad (AAGP) on 15th August 1985. 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 Rs. 5460.61 Crores (fixed cost). A joint venture company, namely M/s Brahmaputra Cracker & Polymer Limited (BCPL) was incorporated on 8th January 2007 is implementing the project.

2.44 Owing to various reasons such as time escalation, sub optimal size of the plant, increase in infrastructural requirements and utilities and off sites resulting from detailed engineering and operational requirements, increase in construction cost, frequent bandhs, labour unrest, inadequate availability of

skilled manpower at the site, prolonged monsoon etc., the project has witnessed time and cost overruns.

2.45 The Government of India, Cabinet Committee on Economic Affairs, considered the revised cost proposal for the Assam Gas Cracker Project on 16.11.2011. The Cabinet Committee on Economic Affairs has approved the Revised cost estimates (RCE) of Rs. 8920 crore (on "as built basis") for setting up of Assam Gas Cracker Project by BCPL with the following funding pattern:

- Capital Subsidy – Rs. 4690.00 crore
- Debt - Rs. 2961.00 crore
- Equity - Rs. 1269.00 crore

2.46 The project schedule has been revised with mechanical completion by July, 2013 and commissioning by December, 2013. The overall physical progress, as on 15th January, 2013 is 87.8% as against the revised scheduled target of 94.2%. The cumulative capital expenditure incurred, as on 31.01.2013, is Rs. 6077.01 crore, including the expenditure of Rs.2334.62 crore in the year 2011-12. Further, as on 15th January, 2013, a total financial commitment to the tune of Rs.8345.16 crore has been made.

2.47 The Department of Chemicals and Petrochemicals has released the entire budget outlay of Rs.1552.00 crore to BCPL towards Capital Subsidy for the year 2012-13. Further, the Department proposed a realistic requirement of Rs.800 crore as the additional capital subsidy in the Supplementary Demand for Grant 2012-13 to the Ministry of Finance. However, no additional allocation would be made for AGCP in 2012-13. Consequently, the Department has requested Planning Commission to provide plan budgetary support of Rs.1000.00 crore in the Annual Plan 2013-14 in one tranche at the BE stage to meet the capital subsidy requirement for AGCP. The project activities at Lepetkata, Duliajan and Lakwa sites are in full swing. All major work contracts and purchase orders have been awarded. The major part of Civil and structural works are in advanced stage of completion at Process Plants.

2.48 Subsequent to resignation of Director (Finance), BCPL, the process for appointment of the new incumbent is underway.

2.49 The Assam Gas Cracker 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 considered to be of economic significance for the State of Assam and the North-Eastern region.

Chemical Weapons Convention (CWC)

2.50 CWC is a universal non-discriminatory, multilateral, Disarmament Treaty, which bans the development, production, acquisitions, transfer, use and stockpile of all chemical weapons. India is a party to this Treaty. It has 188 States as its Members as on 30.09.2011. India has a well-developed chemical industry relevant to the Convention. The Department is also the administrative Department for the CWC Act, 2000, which is in force in the country. In terms of the allocation of work in relation to the CWC related activity, the Department of C&PC is responsible for chemical industry matters and more specifically preparation of declarations, facilitation of inspections by OPCW teams and also for creating awareness in the industry about their obligations under the Convention.

2.51 Declarations and verification are the two important aspects for implementation of the convention. Each State Party is required to make annual declarations of the production, import and export of scheduled chemicals and their production facilities. Declarations in respect of a large number of plant sites producing other Organic Chemical Industries (also called OCPF) are also required to be made. India has been making declarations within the prescribed time frame.

2.52 Inspections are routinely conducted by the OPCW to ensure that the activities in scheduled chemicals are in accordance with the provisions of the Convention. India has so far received one thirty one (131) inspections (as on 31.12.12). These include 21 successfully hosted inspections received so far by India during 2011. DCPC deputes escort officers with the OPCW inspectors to the industrial units for facilitating the inspections. The Department has also set up Help Desks in PPP mode in association with the Indian Chemical Council (ICC) at various places with concentration of chemical industry of relevance to CWC, for facilitating compliance by the chemical industry in its obligations under CWC. These help desks have the following locations and coverage:

Location	States covered
Hyderabad	Andhra Pradesh, Orrisa and Chhattisgarh
Kolkata	Bihar, Jharkhand, West Bengal and North Eastern Regions
Delhi	Uttar Pradesh, Himachal Pradesh, Haryana, Punjab, Chandigarh, Uttarakhand & J&K
Mumbai	Maharashtra, Goa, Rajasthan, Madhya Pradesh etc.
Chennai	Tamilnadu, Karnataka and Kerala
Vadodara	Gujarat

2.53 The Help Desks have been set up for undertaking the following activities:-

i. Disseminate information on CWC to all stakeholders giving a clear over-view including details of obligations of the chemical industry under the CWC Act.

ii. Identification of units, which are potential declarants through industry surveys and facilitate their filing declarations.

iii. Assist the units in filling declarations in proformae stipulated under the CWC Act.

iv. Prepare training material for circulation in consultation with the Deptt. of C&PC.

v. Conduct awareness workshops in the vicinity. 15 Awareness Programmes have been conducted during the period.

vi. Give publicity to the Chemical Weapons Convention.

vii. Send a monthly report to the Department on the activities conducted by them.

viii. Assist the Department in verification of the correctness of the declarations filed by scheduled units through visits to plants and scrutiny of declaration materials.

ix. Any other work assigned to it relating to the CWC Act.

2.54 In the past, Annual Declarations of Anticipated Activities (ADAA) and Annual Declarations of Past Activities (ADPA) were submitted by the facilities manually. In view of the growing number of declarations and in order to improve the quality of declarations, Department of Chemicals & Petrochemicals, in association with NIC, took an initiative to devise a system by which the

declarants would file declarations on-line. The software prepared by NIC was launched on 30.09.2011 to enable declarants to submit their declarations on-line. ADAA 2012 has been forwarded to NACWC electronically.

INDIA CHEM 2012

2.55 To promote the Indian Chemical Industry, the Govt. 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, petrochemical and pharmaceutical sectors exposes the Indian industry to international developments.

2.56 The 7th Edition of India-Chem-International Exhibition and Conference was held on October-04 -06, 2012 at Mumbai. The theme of the India-Chem 2012 International Conference was "Emerging India: Sustainable Development of the Chemical Sector"

2.57 On 4th October, 2012, Shri Pranab Mukherjee, the President of India inaugurated the function which was presided over by Governor of Maharashtra Shri K.Sankaranaraynan in the presence of Shri M.K.Alagiri, Hon'ble Minister (Chemicals and Fertilizers), Shri Srikant Kumar Jina, Hon'ble Minister of State (Chemicals and Fertilizers. Captains of industry from the chemical and petrochemical sectors attended the Conference.

2.58 The President of India, in his inaugural address stressed the growth of the Indian chemical sector by adopting sustainable measures and green chemistry, taking into consideration the essentials for the protection of Safety Health and Environment. He advised the industry to focus on R&D for realizing its true potential. He also released a Handbook on Chemicals and Petrochemicals industry prepared by FICCI.

Inaguration of India Chem 2012 by President, Shri Pranab Mukherjee in the presence of Shri M.K.Alagiri, Hon'ble Minister (Chemicals and Fertilizers), Shri Srikant Kumar Jina, Hon'ble Minister of State (Chemicals and Fertilizers)

2.59 On the sidelines of India-Chem, following concurrent events were held:-

i) The second Indo-Japan Industry Chemical Policy Dialogue was held to facilitate mutual understanding and share information about the sustainable measures for the growth of chemical sectors in both the countries. The dialogue covered crucial issues relating to chemical management including environment issues such as impact of plastics on environment, conservation and recycling, technical barriers and possible areas for acceleration of trade of chemicals between the two countries. IPFT, Gurgaon offered technologies to Japan in the field of development of newer pesticides formulations.

ii) A Chemical conclave of Global Industry Associations was held to discuss in depth various issues that are affecting the chemical sector worldwide. 25 Organizations and Industry Associations participated in this conclave.

iii) Reverse Chemical Buyers Sellers Meet was arranged by Chemexcil with a view to promote export of chemicals, dyes, pesticides, essential oils,

etc. A total of 180 delegates including 38 international buyers from 16 countries such as Australia, Bangladesh, Egypt, Iran, Mexico and Saudi Arabia participated in this Meet.

iv) A CEO's Conclave was held in which about 50 captains of industry from chemicals and petrochemicals sector had an interactive meeting with the representatives of the Government to discuss various issues that affect the competitiveness of the Indian sector and also new measures for speedy clearances from the Government Offices.

v) With the aim of encouraging sustainability and innovation in the sector FICCI has instituted the "FICCI Chemicals and Petrochemicals Awards Scheme", and the same were distributed at the India-Chem 2012.

vi) 274 companies, including 140 from foreign countries, participated in the International Exhibition. It provided a platform to Indian companies to showcase their strengths and potential.

vii) 11 sessions were held in the Conference to discuss topics relevant for the growth and development of the sectors such as infrastructure, innovation & green chemistry, safety in chemical industry, PCPIRs, clean coal technologies, growth opportunities in the petrochemical sector, specially chemicals etc. were discussed.

Rotterdam Convention on Prior Informed Consent for Trade in Hazardous Chemicals.

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

2.61 The objectives of this Convention are to promote shared responsibility and cooperative efforts among 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.

Major provisions

2.62 The Convention covers pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons by Parties and which have been notified for inclusion in the PIC procedure.

2.63 There are 43 chemicals listed in Annex III of the Convention and subject to the PIC procedure, which include 32 pesticides, of which 4 are severely hazardous pesticide formulations and 11 industrial chemicals. The Parties are required to communicate their import policy for these chemicals to the PIC Secretariat.

2.64 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.

2.65 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 acknowledgement/reply is sent to the DNA of the exporting country.

Stockholm Convention on Persistent Organic Pollutants (POPs)

2.66 The Stockholm Convention 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 lays down that in its implementation, Governments will take measures to eliminate or reduce the release of POPs into the environment. This Convention entered into force on 17th May 2004. India ratified this Convention on 13.01.2006.

2.67 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 the use of DDT is restricted in India. Use of DDT has been banned for agricultural purposes; it is produced in a restricted manner for use in vector control only. 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.

2.68 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.

Registration Evaluation Authorisation of Chemicals (REACH)

2.69 The European Union has enacted a legislation titled REACH under which the industry has been made responsible for the safety of products. The new legislation envisages:

Registration: to provide information on the safe use of chemicals manufactured or imported in quantities more than 1 tonne per annum.

Evalution: the information provided by industry will be assessed for completeness and

Authorisation: Substances of highest concern will require additional assessment of use and may be approved if the controls are adequate or alternatives are unviable. Alternatively, they may be restricted if the measure required to manage the risks are deemed inappropriate.

2.70 REACH legislation enacted by EU came into force w.e.f. 01.06.2007. The process of pre-registration of chemicals with European Chemical Agency (ECHA) closed on 1.12.2008. As of 1st December 2008, 650 companies from India have pre-registered 7500 substances through CHEMEXCIL. There are many other companies, which have pre-registered their products directly with ECHA.

2.71 With the closure of pre-registration phase, the deadline for registration with ECHA is as under:

Substances placed in market in quantities over 1000 MT or substances of very high concern	1/12/10
Substances placed in market in quantities of 100-1000 MT	1/6/13
Substances placed in market in quantities up to 100 MT	1/6/18

2.72 A Help Desk on REACH has been established in CHEMEXCIL for helping the chemical exporters to the EU. The Help Desk guides exporters about the procedures to be followed for meeting the requirements of REACH. It also facilitates the registration of chemicals exported. CHEMEXCIL has taken steps for forming local consortia in respect of substances due to be registered by December, 2010 with an aim to share and thereby reduce the costs involved. So far 56 such consortia in respect of 150 substances have been formed.

Chapter- III

BHOPAL GAS LEAK DISASTER

BHOPAL GAS LEAK DISASTER

3.1 An industrial disaster of unprecedented scale occurred In the night of 2nd/3rd December, 1984 when Methyl Iso-cyanate (MIC), a lethal gas stored in two tanks of Union Carbide India Limited (UCIL)'s pesticide unit at Bhopal, leaked into the atmosphere causing thousands of deaths and injuring a large number of people. The State Government of Madhya Pradesh as well as the Central Government undertook immediate relief and rehabilitation measures, for the victims of the gas leak disaster and their families. Various relief measures are still continuing.

3.2 A large number of civil and criminal cases were filed against UCIL and its management in various Courts by individuals and groups. To ensure proper legal representation of the victims and settlement of their claims, the Government of India enacted the Bhopal Gas Leak Disaster (Processing of Claims) Act, 1985 and a Scheme there under. The Office of the Welfare Commissioner, Bhopal Gas Victims, was set up for adjudication of all the claims and disbursement of compensation to the victims under the provisions of this Act.

3.3 The Hon'ble Supreme Court vide its orders and settlement dated 14th and 15th February, 1989 finally settled the litigation on the compensation amount payable to Bhopal Gas Victims. Under the settlement, the Union Carbide Corporation was directed to pay a compensation of US $ 470 million, which was deposited by the Company with the Registrar of the Supreme Court of India, in February 1989.

Adjudication of Compensation Claims

3.4 Under the provisions of the Bhopal Gas Leak Disaster (Processing of Claims) Act, 1985, the Office of the Welfare Commissioner, Bhopal Gas Victims, Bhopal was set up in 1985 for speedy disbursal of the compensation amount to the survivors and families of the victims of the gas leak disaster. The actual disbursement of the compensation started from November 1992 after the order

of the Supreme Court dated 16th October 1992 laid down the modalities for the payment of compensation. By 30.09.2012 approximately Rs. 1548.55 crores had been awarded to 5,74,376 claimants. The position of original compensation claims as on 30.09.2012 is as follows:

S. No.	Category	Number of cases awarded	Total Amount Awarded (Original) in Rs. crore
1	Death	5295	54.64
2	Permanent disability	4902*	25.18
3	Temporary disability	35,455**	137.66
4	Utmost severe cases	42	0.41
5	Minor injuries	5,27,894***	1,328.54
6	Loss of property/PSU	555	2.01
7	loss of livestock	233	0.11
TOTAL		**5,74,376**	**1548.55**

*, **, *** 10,047 cases claimed under Death category were, after adjudication, considered under the categories of Permanent disability (1,703 cases), Temporary disability (1,783 cases) and the rest as Minor injury (6,561 cases). Thus the total number of cases under various categories are: Permanent disability – 4,902 (3,199 + 1,703), Temporary disability: 35,455 (33,672 + 1,783) and Minor injuries – 5, 27,894 (5, 21,333 + 6,561).

3.5 The Supreme Court vide its order dated 19th July, 2004 had directed the Welfare Commissioner to disburse the balance amount of approximately Rs.1500 crore, which was lying unspent with the Reserve Bank of India, on pro-rata basis to the claimants(in the ratio of 1:1 of original compensation). The distribution of pro-rata compensation commenced from 15th November, 2004, as per the directions of the Supreme Court. Till 30.08.2012, a sum of Rs. 1510.60 crore has been disbursed to 5,62,792 claimants on pro-rata basis. The work of distribution of pro-rata compensation is continuing. 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. The Supreme Court is yet to issue any orders/directions in this regard.

3.6 The Government, on the recommendations of the GoM, has decided to pay ex-gratia to the following categories of gas victims:-

Category	Ex-gratia
Death	Rs.10 lakh (less amount already received)
Permanent disability	Rs. 5 lakh (less amount already received)
Injury of utmost severity	Rs. 5 lakh (less amount already received)
Cancer cases	Rs. 2 lakh (less amount already received)
Total Renal Failure Cases	Rs. 2 lakh (less amount already received)
Temporary disability	Rs. 1 lakh (less amount already received)

3.7 An amount of Rs. 740.28 crore has been approved by the Government for disbursement of ex-gratia amongst the above categories of victims and the same has been released to the Welfare Commissioner for disbursement of ex-gratia to the victims falling in above categories. The Office of the Welfare Commissioner has commenced disbursement of ex-gratia to the Gas victims on 19.12.2010. Upto 15.10.2012, 471,428 cases have been decided and a sum of Rs. 674.01 crore has been disbursed. Government of India, in March, 2012 has approved another Rs.134 crore for payment as ex-gratia among 9000 additional cases of Cancer and Total Renal Failure.

Action plan for the Rehabilitation Measures of Bhopal Gas Victims

3.8 As part of the initial relief and rehabilitation measures, the Central Government provided financial assistance to the extent of Rs. 102 crore over a period of 4 years starting from 1985, for carrying out the rehabilitation related work. Subsequently, the Central Government also approved an Action Plan with an outlay of Rs.163.10 crore for medical, economic, social and environmental rehabilitation of the gas victims, the outlay for which was later revised upwards to Rs. 258 crore. It was decided that the outlay was to be shared between the Central Government and the State Government of Madhya Pradesh in the ratio of 75:25, and accordingly the Central Government released Rs.193.50 crores as its 75% share. For subsequent maintenance and other recurring expenditure involved in respect of all the schemes covered under the Action Plan, the State Government of Madhya Pradesh was advised to make appropriate provisions in its Annual Plan.

3.9 The State Government of Madhya Pradesh had submitted to a Group of Ministers (GoM), in April 2008, a new Memorandum on Plan of Action with an

outlay of Rs. 982.75 crore for various rehabilitation measures to be taken for Bhopal Gas Victims. The Government, on the recommendations of the GoM, has approved sanction of Rs. 272.75 crore as Additional Central Assistance (ACA), on 75:25 basis to the State Government, in the first instance, for the various rehabilitation measures to be taken by the State Government of Madhya Pradesh.

Specialty Hospital at Bhopal

3.10 Under the directions of the Supreme Court, a Specialty Hospital named Bhopal Memorial Hospital and Research Centre (BMHRC) has been constructed at Bhopal with super specialty facilities, by the former Union Carbide Corporation. As per the directions of the Supreme Court, a Trust named the 'Bhopal Memorial Hospital Trust' was set up under the Chairmanship of retired Chief Justice of India Shri A.M. Ahmadi in August 1998, to oversee the construction and management of the Specialty Hospital. The Hospital started functioning in July 2000.

3.11 The hospital has 330 beds with facilities in 12 disciplines viz., 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. Free medical treatment to in-door gas patients and free medicines to gas victims visiting the mini units and the main BMHRC (OPD Center) are being provided since the commissioning of the Hospital and its mini units. The Hospital bears the expenditure incurred on surgical facilities provided to gas victims and also provides expensive treatment to cardiac patients and patients with other serious ailments.

3.12 The Central Government had, in June, 2010, on the recommendations of the GoM, decided to take over BMHRC through the Department of Atomic Energy and Department of Bio-technology. The Supreme Court endorsed the decision on 19.07.10. The Committee of Secretaries in September, 2011, has approved a proposal moved by Department of Atomic Energy that BMHRC be appropriately taken over and administered by Department of Health Research and the same has been approved by the Cabinet in its meeting held on 04.01.2012.

Environmental Remediation of the UCIL plant site

3.13 The High Court of M.P. while hearing a Public Interest Litigation 2802/2004 filed on environmental remediation of the UCIL plant site, had constituted a Task Force in 2005 under the Chairmanship of the Secretary, Department of Chemicals and Petrochemicals for co-coordinating the overall environmental remediation of the plant site at Bhopal. The Government of M.P. in consultation with the M.P. Pollution Control Board prepared a three-phase road map for removal/disposal of the toxic wastes lying in and around the plant site at Bhopal, which was approved by the High Court. The Task Force set up by the High Court co-coordinated upto 21.07.2010, the tasks under the road-map, which include removal/disposal of stored toxic wastes lying at the plant site, complete remediation of the contaminated soil, ground-water of the area in and around the plant site and dismantling and de-commissioning of the plant. The High Court vide its Order dated 21.07.2010 renamed the Oversight Committee (set up by Government of India in Ministry of Environment & Forests under the chairmanship of MoS (I/C) MoEF & Co-chairmanship of Minister, BGTR&R Dept, Govt of Madhya Pradesh as Task Force Committee winding up the earlier Task Force.

3.14 Out of the 390 MT of stored toxic wastes lying at UCIL plant, 40 MT of lime sludge has been disposed of in the Treatment, Storage, Disposal Facility (TSDF) at Pithampur in June, 2008. The directions of the High Court that the remaining 350 MT of toxic wastes be incinerated in the BEIL incinerator at Ankleshwar, Gujarat was contested by the Government of Gujarat in the Supreme Court. The Supreme Court, after a series of hearings, disposed off the SLP vide order dated 28th January, 2010 and endorsed the decision of the Task Force that the new incinerator at Pithampur, M.P. will be operationalized at the earliest after which the wastes can be incinerated in that incinerator. Accordingly after the necessary permissions were accorded by State Government of M.P., the trial run of the incinerator at Pithampur started in May, 2010. After the trial run with non-UCIL waste is completed successfully and the incinerator is stabilized, trial run with UCIL waste was to be taken up.

3.15 As per the decision of the Government, on the basis of recommendations of the GoM, an Oversight Committee has been constituted under the Chairmanship of Minister of State (I/c) Ministry of Environment and Forests, Co-chairmanship of Minister in charge of BGTR&R Department, Govt. of M.P. to provide oversight and support to remediation actions to be taken by Govt. of M.P. The Government has also decided to bear the cost of remediation, presently estimated at Rs. 310 crore, pending restitution claim from the polluter. The matter with regard to fixing of the liability on the polluter is pending in the High Court of M.P.

Group of Ministers on Bhopal Gas Leak Disaster

3.16 The present Group of Ministers (GoM) was reconstituted on 26th May, 2010 to examine all the issues relating to Bhopal remediation measures and to make appropriate recommendations regarding relief and rehabilitation of Bhopal Gas Victims and their families. The GoM met continuously for four days from 18.06.2010 to 21.06.2010 and considered all issues concerning the tragedy including compensation, extradition of Warren Anderson, legal matters, Bhopal Memorial Hospital and Research Centre, health related issues, environment related issues and the new Plan of Action submitted by the Govt. of M.P. The recommendations of the GoM were considered by the Cabinet and certain decisions taken with strict time lines for implementation. In keeping with the decisions of Cabinet, a sum of Rs. 272.75 crore has been provided on 75:25 sharing basis to State Government of M.P. for various rehabilitation measures for the victims; Rs. 740.28 crore has been provided for disbursement of ex-gratia to specified categories of victims; CBI filed the revision application and appeal in the sessions court against order dated 07.06.2010 of CJM, Bhopal. CBI has filed Curative Petition against order dated 13.09.1996 of Supreme Court, which was dismissed by the Court in May, 2011; Ministry of External Affairs is pursuing the matter of extradition of Warren Anderson in consultation with the CBI and the Ministry of Law. A fresh request for extradition of Warren Anderson was sent to the authorities concerned of the US Government by Ministry of External Affairs in April,2011. Supreme Court has endorsed taking over of BMHT by the Central Government; ICMR has set up its 31st research centre at Bhopal; the Department of Chemicals & Petrochemicals has filed a Curative Petition in the

Supreme Court on 03.12.2010 against its judgements of 1989 and 1991 settling the compensation amount at US $ 470 million and asking for its enhancement; a transfer petition has also been filed for transferring the W.P. No. 2802/2004 from Madhya Pradesh High Court to the Supreme Court.

3.17 The GoM has also recommended that the issue relating to incineration of 350 MT of toxic waste in the TSDF at Pithampur will be examined further by the Oversight Committee based on the final recommendations of the Peer Review Committee about the process/technology to be used and the site for its disposal. The Peer Review Committee was constituted to review the Reports of NEERI, NGRI and IICT for environmental remediation of plant site and surrounding areas. The final report of the Peer Review Committee has been submitted to the Oversight Committee by the Ministry of Science and Technology. The issue of disposal of 350 MT of toxic waste was considered by the Oversight Committee in its meetings held on 24th March, 2011 and 25th May, 2011 in view of Government of Madhya Pradesh expressing their inability to incinerate the said waste at Pithampur. The Oversight Committee considered the option of disposal of the toxic waste by the Defence Research and Development Organization (DRDO) in their incinerator facility at Nagpur, Maharashtra. A PIL filed by private parties against entry and disposal of this toxic waste at Nagpur, was disposed off on 21st July, 2011 by Bombay High Court directing Government of Maharashtra and Maharashtra Pollution Control Board (MPCB) to approach High Court of Madhya Pradesh at Jabalpur as the case was pending with that Court. The High Court of Madhya Pradesh vide orders dated 28.07.11 and 11.08.11 suspended the transfer of waste to Nagpur and directed the MPCB to analyse the samples and inspect the DRDO facility at Nagpur to ensure incineration at DRDO facility will not cause any hazards to nearby people. MPCB expressed its inability to analyse the likelihood of hazard from disposal of toxic waste and submitted to Court on 09.12.11 that statutory permission to DRDO could not be granted because of non-compliance with statutory provisions by DRDO. Therefore, Ministry of Environment & Forests decided on 22.02.12 to implement the earlier decision of disposal of the waste in the Transportation, Storage and Disposal Facility (TSDF) at Pithampur as already intimated/approved by Supreme Court

in 2010 and also endorsed by Cabinet in June, 2010. On reporting this decision to High Court of MP, the Court on 05.03.2012 directed the personal appearance of Secretary, MoEF.

3.18 The MoEF then moved the Supreme Court against the said direction of the Madhya Pradesh High Court. The Hon'ble Supreme Court in its order dated 04.12.2012, while exempting Secretary, MoEF from personally appearing before the M.P. High Court, also directed the GoM.P. MPPCB, CPCB, etc. to cooperate fully to implement the decision taken by MoEF on 22.02.2012 for incinerating the waste (350 MTs) at Pithampur, M.P. and also to carry out such incineration in Pithampur. On an application filed by Govt of Madhya Pradesh, Hon'ble Supreme Court in its order dated 11.05.2012 deferred the implementation of their earlier order dated 04.04.2012 to incinerate the waste at Pithampur, while directing that an early decision may be taken by the GoI on the GIZ proposal. The GoI approved the proposal of GIZ for incineration of the waste by transporting it to Germany, on the recommendations of GoI and Govt of MP. While discussions were being held with GIZ for finalization of the contract to be entered into between them and GoMP, GIZ on 17.09.2012 withdrew the proposal citing negative publicity in Germany. The GoM in its meeting on 22.10.2012 approved the decision as suggested by Secretary, Environment & Forests and Member Secretary, CPCB to continue the incineration of other similar waste in TSDF Pithampur, stabilizing the incineration process at the same time, and making it ready for test incineration of the actual Bhopal waste, within a period of 2 months and thereafter transporting a sample of the Bhopal waste to the Pithampur facility and incinerating it there. The matter is still pending in Supreme Court.

Chapter- IV

PUBLIC SECTOR UNDERTAKINGS

Hindustan Organic Chemicals Limited

4.1 Hindustan Organic Chemicals Limited (HOCL) was incorporated on 12th December 1960, for setting up manufacturing capacities for chemicals/ intermediates which are required for production of dyes, dye-intermediates, rubber chemicals, pesticides, drugs and pharmaceuticals, laminates, etc. It was expected that indigenous manufacture of these chemicals and intermediates would give impetus to downstream industry resulting in setting up of chemical units and achieving self-sufficiency for the country in this area. The objective behind setting up of HOCL has been achieved to a large extent as over the years, more than 500 units based on HOCL's products have been set up all over the country. These have not only helped in achieving self sufficiency but have also entered the international market by exporting chemicals, dyes and drugs for over the last many years.

4.2 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 sulphu and most of these come from petroleum refineries. HOCL is the only manufacturer of liquid rocket propellant N_2O_4 in the country.

4.3 HOCL has two units at Rasayani (Maharashtra) and Kochi (Kerala). It also has a subsidiary company, M/s Hindustan Fluorocarbons Limited located at Rudraram (Andhra Pradesh) for manufacture of poly-tetra-fluoro-ethylene (PTFE), a high- technology engineering plastic.

4.4 The company was referred to BIFR in February, 2005 and based on the recommendations of BRPSE, Government approved a Revival Package on 09.03.2006 envisaging cash infusion of Rs. 250 crore in the form of 8% Redeemable Non-Cumulative Preference Shares for repayment of high cost overdue Bonds, for payment of VRS and waiver of penal interest and interest

on interest upto 31.03.2005 and continuation of GoI Guarantee of Rs.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 SICA 1985.

4.5 The Kochi Unit has been achieving almost full capacity utilization over the years, 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 totally eliminated the handling losses, thus improving the efficiency of operations and safety of the unit.

4.6 HOCL has been making efforts to reduce the cost of production. At Rasayani, for producing Aniline, feedstock Naphtha has been replaced by CNG. Similarly, at Kochi, fuel LSFO will be replaced by RLNG by mid 2013, which will bring down the cost of production of Phenol and Acetone. The company is also debottlenecking the production capacity of Hydrogen Peroxide and N2O4. 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 options like merger and/ or JV with RCF, BPCL, JNPT etc.

New Proposals and Projects

4.7 The physical and financial performance of the Company during the last five years has been as follows:

Year	Production (MT)	Turnover (Rs. in crore)	Net Profit/ Loss (Rs. in crore)
2007-08	242013	666.59	(+) 13.61
2008-09	245192	620.9	(-) 25.27
2009-10	221249	520.71	(-) 83.07
2010-11	238684	738.03	(+)25.71
2011-12	178792	606.37	(-) 78.07

4.8 HOCL has planned to undertake the following new projects:

i) NOX Blower for Nitric Acid plant refurbishment at Rasayani;

ii) Air Compressor and Refrigeration compressor of nitric acid plant replacement at Rasayani;

iii) Methanol Vaporizer at Formaldehyde plant Rasayani ;

iv) Raw Material storage tanks at Rasayani unit ;

v) Conversion from Low Sulphur Furnace Oil (LSFO) to RLNG in hot oil unit, steam boiler plant and Captive Power Plant (CPP) at Kochi unit.

M/S Hindustan Fluorocarbons Limited

4.9 M/s Hindustan Fluorocarbons Ltd. (HFL) is a subsidiary company of Hindustan Organic Chemicals Limited. HFL was incorporated on 14.07.1983. The Registered office of the company is located at No. 1402, Babukhan Estate, Basheerbagh, Hyderabad. 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 the defence and aeronautical sectors. The factory is located at Rudraram, district Medak, Andhra Pradesh.

4.10 The company is under BIFR. The rehabilitation package under the operating agency M/s IDBI is approved by BIFR on 03/12/2007 and implementation is completed. Necessary statutory approval for CDM process is obtained. The rehabilitation proposal largely consists of thermal oxidation of CFM-23, produced during production of CFM-22, which qualifies for Clean Development Mechanism (CDM) benefits. The company, after obtaining the host country approval from the Ministry of Environment & Forest (MoEF), had obtained project registration by United Nations Framework Convention on Climate Change (UNFCCC) on 14th November 2008. The company has diversified into profitable business of fluoro speciality chemicals and also developed Fluoro specialty chemicals like TFE-Ether first time in India and successfully selling for the last three years. HFL posted a net profit of Rs.252.25 lakh in 2011-12 as compared to net profit of Rs.223.47 lakh in the previous year.

4.11 The physical and financial performance of the Company during the last five years has been as follows:

Year	Turn Over (Rs. in lakh)	Net Profit (Rs. in lakh)
2007-08	1181.67	3996.4
2008-09	1599	55.51
2009-10	2023.13	306.27
2010-11	3352.42	223.47
2011-12	5032.53	252.25

4.12 HFL has plans to undertake the following new projects:

i) Debottlenecking of Monomer plant

ii) Manufacturing of FEP Resin for Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram.

iii) Joint venture with M/s AFTPL to manufacture Fluoro speciality chemicals.

Hindustan Insecticides Limited

4.13 Hindustan Insecticides Limited (HIL) was incorporated in March 1954 for manufacturing and supplying DDT for the malaria eradication programme (NMEP), presently known as National Vector Borne Disease Control Programme (NVBDCP). In 1957, the company set up their second factory at Udyogamandal, near Cochin, for manufacture of DDT. The company set up a plant at Rasayani, Maharashtra in 1977 for manufacture of Malathion, an insecticide used in agriculture and public health. Today HIL has three manufacturing units located at Udyogamandal in Kerala, Rasayani in Maharashtra and at Bathinda in Punjab. All the manufacturing units of the company are ISO certified and comply with the requirements of International Standards of ISO 9001:2000, ISO 14001:2004 and ISO 18001:2007. The Corporate Office is ISO 9001 certified.

4.14 HIL has played a pivotal role on the public health front by keeping the dreaded disease like Malaria, Kala Azar, Dengue, Japanese Encephalitis etc at bay with the manufacture and supply of DDT. DDT is even today the most effective tool to control the mosquito vector that spreads these diseases. DDT which accounts for almost 48% of turnover is supplied only to the National Vector Borne Disease Control Programme of the Government of India. The Company has now emerged as a leading supplier of DDT to the Globe. UNIDO is buying

DDT from HIL for supplying to Zimbabwe. HIL has also supplied DDT to South Africa, Namibia during 2011-12.

4.15 HIL diversified into agro-chemicals in the late seventies to ensure supply of quality pesticides at reasonable prices to the farming community. The agro chemicals are sold through a network of 7 Regional Sales Offices located at Delhi, Ahmedabad, Coimbatore, Hyderabad, Kolkata, Nagpur and Bangalore. The Company operates in public health and crop protection segments to improve the rural health and agricultural productivity that is helpful in bringing in prosperity to rural India.

4.16 The company faced a major challenge with a ban on Endosulfan by the Hon'ble Supreme Court of India on 14th May, 2011, that accounted for approximately 20% of annual sales turnover. Despite the ban on Endosulfan, the Company increased the turnover to Rs. 279.82 crore, against Rs. 271.04 crore during last year and the turnover achieved is highest since its inception.

4.17 Performance of the company for last 5 years is as follows-

(Rs. in crore)

Year	Production (MT)	Sales Turnover	Net Profit/Loss
2007-08	19845	210.19	(+)06.52
2008-09	16415	215.35	(+)02.71
2009-10	18253	243.88	(+)03.06
2010-11	17473	271.04	(+)01.58
2011-12	16363	279.82	(+)01.60

4.18 New projects and proposals

i) The Company has drawn up a growth strategy to further consolidate its position by growing aggressively in new as well as existing markets. One new thrust area 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 pesticides.

ii) The Company also has taken initiatives to develop new products to be used as Indoor Residual Spray. The new molecule is expected to be a major

breakthrough in vector control. Work is being carried out at a renowned University which is regularly being monitored by its team of scientists and engineers.

iii) The company also has a well- equipped research team at Central Research & Development Complex of HIL, Gurgaon, to conduct continuous development of safe, economical and environment friendly pesticides formulations. Research is on to develop rectifiers to amend soil reaction and chemicals properties so as to regain the fertility of soil, for which soil samples have been collected from various locations. This is expected to be a boon to the farmers as well as for HIL.

iv) To expand the reach of its products, HIL has also tied up for distribution of its products through the dealer network of KRIHBCO, BVFCL, Rashtriya Chemicals & Fertilizers Limited, National Fertilizers Limited, RAJFED etc.

Brahmaputra Cracker & Polymer Limited (BCPL)

4.19 BCPL was incorporated on 8th January 2007. It is implementing the Assam Gas Project, the details of which are outlined in Paras 2.43 to 2.49 of this Report.

Chapter- V

AUTONOMOUS INSTITUTIONS

Central Institute of Plastics Engineering and Technology (CIPET)

5.1 CIPET is a premier national Institution devoted to Academic, Technology Support & Research (ATR) activities for the growth of plastics & allied industries in the country. CIPET operates on a hub and spoke model with its Head Office at Chennai and 23 operational locations spread across the length and breadth of the country. These include:

- 5 High Learning Centres at Chennai, Ahmedabad, Bhubaneswar, Lucknow & Kochi.
- 11 conventional centres at Amritsar, Aurangabad, Bhopal, Guwahati, Hyderabad, Hajipur, Haldia, Jaipur, Imphal, Mysore and Panipat.
- 02 R&D wings - Advanced Research School for Technology and Product Simulation (ARSTPS) at Madurai and Laboratory for Advanced Research in Polymeric Materials (LARPM) at Bhubaneswar.
- 02 specialized units - Advanced Tooling and Plastics Product Development Centre (ATPDC), Madurai and Advanced Plastics Processing Technology Centre (APPTC), Balasore.
- 02 vocational training centres & 01 Plastics Waste Management Centre at Guwahati.
- All the CIPET centres have state-of-the-art infrastructural facilities in the areas of Design, CAD/CAM/CAE, tooling & mould manufacturing, plastics processing, testing and quality control to cater to the needs of plastics and allied industries.

Academic programmes

Long term programmes

5.2 CIPET is conducting 11 different long-term training programs viz. Diploma, Post Diploma, Post Graduate Diploma, Undergraduate, Post Graduate and Ph.D. programs with varying levels of entry qualification.

The long-term programs offered by the institute are as follows:

- Three Years full time Diploma in Plastics Technology (DPT)
- Three Years full time Diploma in Plastics Mould Technology (DPMT)
- One and a half years full time Post Diploma in Plastics Mould Design with CAD/CAM
- One and a half years full time Post Graduate Diploma in Plastics Processing & Testing (PGD-PPT)
- Four Year Full Time B.Tech. (Plastics Engineering/Technology)
- Four Year Full Time B.E./B.Tech. (Manufacturing Engineering/ Technology)
- Two Year Full Time M.Tech. (Plastics Engineering/Technology)
- Two Year Full Time M.Tech. (Polymer Nanotechnology)
- Two Year Full Time M.E. (CAD/CAM)
- Two Year Full Time M.Sc.(Bio Polymer Science)
- Five Year Full Time M.Sc. (Tech.) in Material Science Engineering

5.3 The Undergraduate, Postgraduate & Doctoral programs are offered at the High Learning Centres in affiliation/collaboration with respective reputed State Universities.

5.4 In the year 2011 - 12, 9523 students enrolled for long term programs whereas in the year 2012 - 13, 10542 students have been admitted, which is around 11% more than the previous year.

Short-term programmes

5.5 Apart from the regular courses, the institute also offers highly specialized and customized Short - Term Programs in the field of Plastics Engineering & Technology to update and improve the skills and competence of technical manpower in the plastics and allied industries. While 22508 participants attended various Short term courses in 2011-12 during the year 2012-13, 9379 participants have attended similar programs till September'12.

Conference/Seminar/Exhibition

5.6 Laboratory for Advanced Research in Polymeric Materials (LARPM)- R&D wing of CIPET organized an International Conference titled "Advancements in

Polymeric Materials (APM-2012): Exploring the Hidden Potential of Polymeric Materials" during 10th - 12th Feb. 2012 at CIPET-Ahmedabad. Around 260 Research papers on different themes were deliberated during the Conference. The participants included eminent scientists, researchers and students from 8 foreign universities.

5.7 On the sidelines of APM 2012, for the first time in the history of CIPET, an exclusive UG Student event TECH FEAST - 2012 encompassing sub-events such as elocution competitions, poster presentations, Quiz programmes etc., was organized. More than 300 students participated in this event.

5.8 CIPET has been contributing to the issue of Plastic Waste Management by organizing Conferences/Workshops/Seminars for Government officials, NGOs and various other stake holders. A workshop on "Plastics Waste Management: Recycling Technologies" was organized at New Delhi on 21st March, 2012.

5.9 CIPET has also taken initiatives for plastics recycling at the grass roots level by launching "recycle wall" project in association with Paperman (an NGO) in 5 selected schools at Chennai.

Faculty Development Programme

5.10 The faculty of CIPET has been deputed to countries like USA, UK, Taiwan and Japan for equipment training during the reporting period.

5.11 CIPET also took part in International Exhibitions like, ChinaPlas 2012, IPF 2012, NPE 2012, Plastivision Arabia, Srilanka Plast 2012 and other industry events like PlastIndia 2012 and Die & Mould India Exhibition, Sakal Gurukul Exhibition at national level. Around 150 Faculty and Technical supporting staff who had been deputed for these events benefitted substantially from these opportunities.

5.12 Apart from equipment training and exhibitions, CIPET staff and faculty also participated in various in house faculty development programs. Around 25 staff members have been trained as Pre Delivery Inspection (PDI) Inspectors as per ISO/IEC 17020.

5.13 Research Scholars have been deputed to University of Toronto, Canada under GREET Project to pursue their collaborative Ph.D programs.

5.14 In the year 2012-13, 148 faculty/staff of CIPET have been deputed to

upgrade their skill and competency levels through participation in Seminar/ Conferences/FDP programs etc., upto September, 2012.

Technology Support/Services

5.15 CIPET has been entrusted with prestigious assignments to provide Technology support services. During the reporting period, the major Technology Support Services undertaken are: -

i) Testing & Consultancy assignments pertaining to Quality assessment of Mixie, Fan & Grinder for TNCSC, Govt. of Tamilnadu.

ii) Manufacturing of Mould for Twin Container Project for M/s Ordnance Factory, Dum Dum.

iii) Manufacturing of Mould For Multimode Hand Grenade Project for M/s Ordnance Factory, Dum Dum.

iv) Manufacturing and Supply of Precision Components For Space Application for ISRO, Bangalore.

v) Testing & Evaluation of Contraceptive Devices for Ministry of Health & Family Welfare, Govt. of India.

vi) CIPET's expertise as third party inspection agency for plastics and allied products is recognized by a various Central and State Governments organizations.

vii) During the year 2011-12, CIPET undertook 35169 assignments from reputed industries / institutions / government agencies across the country. It is anticipated that about 38000 assignments would be undertaken during 2012-13.

Research and Development Activities

5.16 During the reporting period, the following R&D activities have been carried out through the R&D wings (LARPM & ARSTPS) of CIPET:

i) Sponsored R & D projects from various funding agencies like DST, CSIR, OIDB, DCPC, etc. have been carried out

ii) 16 research papers have been published in various International Journal of High Impact Factor and presented in various national and international conferences

iii) 12 students have registered for Ph.D. Program in the field of Polymer Science & Technology

iv) 100 M.Tech. Theses work has been carried out.

Global Interaction

5.17 A delegation led by Secretary (C&PC), Govt. of India visited USA & Canada during April 01-06, 2012 for (i) Visit to NPE 2012 - International Plastics Showcase and Exhibition held at Orlando, USA and (ii) Review of progress of MoUs signed by CIPET with Michigan State University, USA and University of Toronto, Canada for Student/Faculty exchange programs, Collaborative Research & Exchange of academic materials etc.

5.18 Another delegation comprising a Senior CIPET official led by Joint Secretary (Petrochemicals), Deptt. of Chemicals & Petrochemicals, Govt. of India visited Houston & San Fransisco, USA from 26th March to 2nd April 2012. During the visit, they participated in the World Petrochemical Conference 2012 and interacted with industry and Government officials in the area of Plastics Recycling & Waste Management system.

5.19 DG, CIPET accompanied the Indian Delegation and visited Chinaplas 2012 from April 18-21, 2012 at Shanghai, China. During the visit, a MoU was signed between CIPET and Shanghai University, PR China for Faculty/Students exchange programs and Co-operative Research in the field of Polymer Science & Technology.

Signing of MoU with Shanghai University, Shanghai by Smt. Neelkamal Darbari, I.A.S., Joint Secretary (PC), Deptt. of Chemicals and Petrochemicals

5.20 A two week training program on "Processing & Testing of PVC, HDPE Pipes & fittings including fusion welding of HDPE pipes" was organized for a candidate from M/s Topaz Multi Industries, SARL, Guinea, West Africa during May 21- June 01, 2012.

Important Events

5.21 The High Learning Centre at CIPET Chennai was inaugurated by Shri M.K. Alagiri, Hon'ble Minister for Chemicals & Fertilizers, Govt. of India on 26th March, 2012.

Shri M.K.Alagiri, Hon'ble Minister for Chemicals & Fertilizers, Govt. of India inaugurating the High Learning Centre, Chennai on 26th March, 2012

5.22 A new Centre for Bio-Polymer Science & Technology (CBPST) has been set up at Kochi to provide academic Programmes in Bio - Polymer Science & Technology and to promote bio plastics and allied industries. This centre will extend technical guidance and advisory services to the existing industries and serve as an impetus for entrepreneurs for venturing into establishment of Bio-plastics based manufacturing industries. The main objectives of CBPST are:

- To create a knowledge pool of Qualified Professionals through specialized Academic Programmes in Bio-Polymers Science and Technology.
- To bridge the gap between Academic and Applied Research in Development of commercial scale of Bio-Polymers.
- To undertake R&D projects in the niche areas of Bio-Plastics/Bio-Polymers, Biomaterials, Natural Fibres, Compostable Materials, development of Nanotechnology based Biomaterials, etc.
- The Centre was formally inaugurated jointly by Shri M.K. Alagiri, Hon'ble Minister for Chemicals & Fertilizers, Govt. of India, and Shri Oommen Chandy, Hon'ble Chief Minister, Kerala on 25th Aug. 2012.

Inauguration of Centre for Bio-Polymer Science & Technology (CBPST), Kochi by Shri M.K.Alagiri, Hon'ble Minister for Chemicals & Fertilizers, Govt. of India jointly with Shri Oommen Chandy, Hon'ble Chief Minister, Kerala on 25th August, 2012

Institute Of Pesticide Formulation Technology (IPFT)

5.23 Institute of Pesticide Formulation Technology (IPFT) was established in May, 1991 under the Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers as an autonomous institution. IPFT has established a healthy rapport with the pesticides industries and has been able to successfully transfer technology for safer, efficient and environment friendly formulations. IPFT consists of three major Divisions and a pilot plant. The Institute carries out both in-house and external projects.

Objectives of the Institute

5.24 The main objectives of IPFT as given in the Memorandum of Association of the Society are:

i) Development and production of state-of-the-art user and environment friendly pesticide formulation technology.

ii) Promotion of efficient application technologies suiting the existing requirements of the newer formulations.

iii) Information dissemination of safe manufacturing practices, quality assurances, raw material specification and sources.

iv) Analytical and consultancy services.

v) Fostering the improvement in the qualification and usefulness of pesticide scientists working in the agrochemical area.

vi) Continuing education through specialized training for pesticide personnel.

Achievements during the year 2012 -13

5.25 In 2011 – 12, the lab participated in the 29th Proficiency Test held by OPCW in April, 2011 and performed well (Grade 'A'), and obtained the "Designation" by the OPCW for the year 2011 - 12. IPFT also participated in 31st OPCW Proficiency Test held in April 2012, and its "Designation" Status has been continued for 2012 – 13 also. This is an international recognition and IPFT continues to be a member of the elite club of the few "OPCW Designated Labs" world over.

5.26 IPFT continues to be an accredited laboratory by National Accreditation Board for Testing & Calibration Laboratories (NABL) as per ISO – 17025 (2005) for the analysis of Pesticides and CWC related chemicals. The Desktop Audit of the Lab was held in October, 2011.

5.27 IPFT was successful in getting BIS Recognition/Certification in June, 2011, which has continued during the year 2012 – 13 also. This will result in increased revenue generation as IPFT has qualified to receive samples for testing from BIS.

5.28 IPFT established a Library in the year 2011 – 12 and has become a member of NISCAIR in 2012 – 13. Under the CAPS scheme of NISCAIR, IPFT is subscribing to 30 Journals related to the R&D mandate of IPFT.

5.29 MoU has been signed between IPFT and IIT Kanpur for undertaking a collaborative research programme on "measurement of pesticide residues in Air after pesticide application". A MoU has been signed between IPFT and National Research Centre on Camel (NRCC) for undertaking a collaborative project titled "Phero-Chemical Analysis of Pesticides in the urine of Dromedary Camels".

5.30 A cream formulations using Citronella oil with eco-friendly and skin-friendly surfactants, stabilizers & preservatives has been developed as mosquito repellent. The physico-chemical, repellent and toxicological (skin irritation) studies of the formulation have been completed. The effectiveness of cream is equivalent to the commercially available cream (patent filed).

5.31 The Department of Chemicals and Petrochemicals has sanctioned following three projects for the XII Five Year plan subject to 'in principle' approval of the Planning Commission:

(i) 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.

(ii) Development of Mass Production Technique and Formulation for Baculoviruses.

(iii) Management of Termite by Integrated Approach and Indigenous Technologies.

Academic, Research and Training Outputs

5.32 While 4 papers were presented by IPFT in various conferences, 4 others papers were published in National / International journals. 3 patents, based on research & other activities in IPFT have been filed / granted. 5 IPFT Scientists were invited for talks / lectures and training courses.

Revenue Generated

5.33 IPFT has undertaken 26 new projects and generated record revenue from the industry sponsored projects and testing of pesticide samples during the current financial year. The revenue generated during April – October, 2012 is Rs. 28,66,100.00 as against Rs. 11,78,425.00 during the same period in the previous year.

Chapter- VI

GENERAL ADMINISTRATION

Organisation Set Up of the Department

6.1 The main activities of the Department are policy making, sectoral planning and promotion and development of chemical, 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, is a major function of the Department.

6.2. The Department is headed by a Secretary to the Government of India who is assisted by a Financial Adviser (Additional Secretary level), two Joint Secretaries, one Economic Adviser and two Deputy Directors General. The Organisation Chart is at Annexure IV.

Employment of Scheduled Castes/Scheduled Tribes/Physically Handicapped in the Main Secretariat of the Department of Chemicals and Petrochemicals

6.3. The status of the employment of Scheduled Castes/Scheduled Tribes/ Physically handicapped in the main Secretariat of the Department of Chemicals & Petrochemicals, as on 30.09.2012 is as under:

Group	Total No. of posts	Scheduled Castes	Scheduled Tribes	Physically Handicapped
A	40	3	-	-
B	63	7	-	1
C	84	19	3	1
TOTAL	**187**	**29**	**3**	**2**

6.4 Officers in Group A include officers belonging to Central Secretariat Service besides officers on deputation from All India Services, Central Services and other Departments/ Undertakings. Appointment to posts in Group B and C is mostly done on the basis of nominations made by the Department of Personnel & Training.

RECORD MANAGEMENT

6.5 The Parliament has enacted "The Public Records Act 1993" to regulate the management, administration and preservation of Public Records of the Central Government, Union Territory Administrations, Public Sector Undertakings, statutory bodies, corporations etc. The Central Government has also made rules to carry out the provisions of the Act. In terms of the provisions and terms contained in Section 5(1) of the Act, the Under Secretary in-charge of General Administration has been nominated as the Records Officer in the Department. A modernized Record Room has been set up in the Department under the Plan Scheme run by Department of AR&PG. Requisite reports and returns are being sent to National Archives of India (NAI) regularly.

USE OF HINDI IN OFFICIAL WORK

6.6 In order to ensure compliance of the statutory provisions and Presidential Orders on the Official Language Policy of the Government, there is a Hindi Section in the Department and also in its Attached and Subordinate Offices. Assistant Director (OL) and Joint Director (OL) supervise the work of the Hindi Section under the overall guidance of a Joint Secretary.

6.7 All documents like Annual Report, Performance Budget, Demand for Grants, Parliament Questions and Assurances, Material for Standing committee, C& AG Reports, Cabinet Notes, Updation of Departmental website, the 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 formulated by the Department of Official Language.

6.8 Hindi fortnight was organized in the Department from 15th to 30th September 2012. During this period, five competitions in Hindi Typing, Hindi Shorthand, Hindi Essay, Noting and Drafting and Translation were held. A competition on Hindi Essay exclusively for Group 'D' employees was also held. Separate prizes were earmarked for non-Hindi speaking officers and staff. Meritorious participants were given cash prizes.

6.9 The Department has an Official Language Implementation Committee under the Chairpersonship of Joint Secretary and its meetings were held regularly. The progress made in the use of Hindi was reviewed and suggestions for further improvement were adopted for compliance. Quarterly meetings of OLIC were held to monitor the implementation of Official Language Policy in the Department. Two workshops were organized on 27th April, 2012 and 5th December, 2012, in which officers and staff of the Department had participated.

6.10 Quarterly Progress Reports for each quarter during the year were compiled on the basis of inputs received from different Sections of the Department and sent to the Department of Official language for inclusion in the data base. Reports received from Attached and Subordinate Offices were reviewed and deficiencies found therein were suggested for rectification. Follow up action on the observations of the Department of Official Language on the Annual Assessment Report was taken in the Department and necessary instructions were issued.

6.11 In order to impart working knowledge of Hindi, officers and employees not possessing such knowledge, are sent for in-service training as per the programme formulated by the Hindi Teaching Scheme, Department of Official Language. Staff members are also sent for Hindi stenography and typing training under the same scheme. On successful completion of such training, they are given advance annual increments and cash awards depending on their performance ratings.

6.12 There is an annual cash award scheme under which officers/employees doing their official work in Hindi are required to maintain their daily work sheet for the entire year and submit it for evaluation by the screening committee constituted in the Department.

ACTIVITIES AND ACHIEVEMENTS OF THE VIGILANCE SET UP

6.13 The Department has a Chief Vigilance Officer (CVO) of the rank of Joint Secretary to look into complaints against the employees of the Department as well as Board Level Officers of the Public Sector Undertakings and Organizations under its administrative control. A Director/Deputy Secretary and an Under

Secretary along with a Vigilance Section assist the CVO. Complaints received during the year 2012-13 were investigated and appropriate action was taken thereon.

6.14 Vigilance Awareness Week" was organized during the period 29th October to 3rd November, 2012. All the PSUs and Autonomous Bodies under the administrative control of the Department of Chemicals and Petrochemicals were also advised to organize 'Vigilance Awareness Week' as per guidelines of CVC. A pledge was administered to the staff and officers of the Department.

GRIEVANCE CELL

6.15 A Grievance Cell was established in the Office of Minister Chemicals and Fertilizers, Department of Chemicals and Petrochemicals in the month of July 2004. This Cell is monitoring grievances related to all chemicals and petrochemicals viz. their availability, quality, pricing, policy matters etc.

6.16 Publicity about the setting up of this Grievance Cell was given through the national daily newspapers of Hindi and English. The online Grievance Redressal Mechanism, Public Grievance Redressal and Monitoring System (PGRAMS) has been brought into operation w.e.f. 1st August 2005. For giving wide publicity to the Grievance Cell, information has been uploaded on the website of Department of Chemicals & Petrochemicals and also on the websites of the Institutions/Organizations falling under the purview of Department of Chemicals & Petrochemicals. A link has been provided on the home page of Department of Chemicals and Petrochemicals to access PGRAMS with the websites of the Institutions/Organizations under Department of Chemicals & Petrochemicals. The Grievance Cell plays a vital role in the redressal of grievances of the common citizen.

GENDER EQUALITY

6.17 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 a Complaint Committee. The Committee is functional since June 2002.

RIGHTS OF PERSONS WITH DISABILITIES

6.18 Department of Chemicals & Petrochemicals follows the guidelines issued by Government of India from time to time regarding rights of the persons with disabilities.

6.19 Department of Chemicals & Petrochemicals is the cadre controlling authority in respect of 12 technical posts in Group 'A', 5 posts of Staff Car Drivers, 2 posts of Sr. Gestetnor Operator and 1 post of Dispatch Rider and 48 Multi Tasking Staff (MTS) in Group 'C. The Department has identified two posts for physically handicapped persons [one for Hearing Handicapped (HH) and one for Orthopedically Handicapped (OH)] in Group 'C' posts. Point No.1 in the reservation roster has been earmarked for an orthopedically handicapped person. The next point will arise only at the time of filling up of 34th vacancy. An orthopedically handicapped person has filled up the post identified for OH. The identified post for hearing handicapped will be filled up on availability of vacancy.

6.20 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

6.21 The Right to Information Act, 2005 was published in the Gazette of India on 21st June 2005 with the mandate to promote transparency and accountability in the working of every public authority. As per the provisions of the Act, all relevant information relating to the Department have been made available on the Web site and it is being updated regularly in a manner which is easily accessible and comprehensible to the public. Seven (7) Central Public Information Officers (CPIO) have been nominated in the Department to provide information to the public and information seekers. In addition, four (4) senior officers of the rank of Joint Secretary and above have been designated as Appellate Authority for the particular subjects they are concerned with.

Annexure - I

R F D

(Results-Framework Document)

for

(Department Of Chemicals and Petro-Chemicals)
(2011-2012)

Section 1:
Vision, Mission, Objectives and Functions

Vision

To facilitate the growth and development of the Chemical and Petrochemical industry and to enable it to become a major global player as well as environmentally friendly

Mission

To promote investment through public/private/public-private partnership in the chemical and petrochemical sector and thereby maintain impressive rates of growth in the production and exports from the sector. To encourage R&D and Human Resource Planning and Development to cater to the needs of the industry. To improve productivity in the sector and support adoption of environment friendly and sustainable technologies and practices which will stimulate the long-term development of the sector.

Objective

1 Facilitate the growth and development of the chemical sector

2 Promoting investment and growth in the petrochemical sector

3 Implementation of the Assam Gas Cracker Project

4 Facilitate human resource development in downstream industries through CIPET

5 Effective Coordination for implementation of rehabilitation measures for Bhopal Gas Leak Disaster Victimes

6 Comp-liance of Chemical Weapons Convention (CWC)

7 Operationalising the National Policy on Petrochemicals

8 Improving Performance of Hindustan Insectides Limited (HIL)

9 Improving Performance of Hindustan Organic Chemicals Ltd. (HOCL)

10 Addressing environmental concerns in plastics

11 Enhancing effectiveness of Institute of Pesticide Formulation Technology

Functions

1 Insecticides excluding the administration of The Insecticides Act, 1968 (46 of 1968)

2 Molasses

3 Alcohol – Industrial and Potable from the molasses route

4 Dyestuffs and Dye Intermediates

5 All organic and inorganic chemicals, not specifically allotted to any other Ministry or Department

6 Planning, Development and control of, and assistance to, all industries dealt with by the Department

Section 1:
Vision, Mission, Objectives and Functions

7 Bhopal Gas Leak Disaster-Special Laws relating thereto

8 Petrochemicals

9 Industries relating to production of non-Cellulosic Synthetic Fibres (Nylons, Polyesters, Acrylic etc)

10 Synthetic Rubber

11 Plastics including fabrications of plastic and moulded goods

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
[1] Facilitate the growth and development of the chemical sector	15.00	[1.1] Formulation of a National Policy on Chemicals	[1.1.1] Finalization of the report of the Task Force	Date	1.50	30/06/2011	31/07/2011	31/08/2011	30/09/2011	31/10/2011
			[1.1.2] Getting comments from concerned Deptts./Ministries on the report of Task Force	Date	0.99	31/08/2011	30/09/2011	31/10/2011	30/11/2011	31/12/2011
			[1.1.3] Follow up meeting with the concerned Ministries for finalizing the action plan for implementation of the recommendation of the Task Force	Date	0.99	31/10/2011	30/11/2011	31/12/2011	10/01/2012	31/01/2012
			[1.1.4] Preparation of the draft of the National Policy on Chemicals for Cabinet approval	Date	1.50	15/12/2011	31/12/2011	15/01/2012	31/01/2012	15/02/2012
		[1.2] Setting up of the National Institute of Chemical Safety and Management (NISCM)	[1.2.1] Formulation of the Charter	Date	1.50	30/06/2011	31/07/2011	31/08/2011	30/09/2011	31/10/2011
			[1.2.2] Commencement of the functioning of the Institute	Date	1.50	31/10/2011	30/11/2011	31/12/2011	31/01/2012	29/02/2012
		[1.3] Organization of India Chem Gujarat	[1.3.1] Constitution of a Task Force-	Date	0.18	10/04/2011	30/04/2011	15/05/2011	31/05/2011	10/06/2011
			[1.3.2] Participation by Companies.	Number	0.19	115	112	110	106	105
			[1.3.3] Meetings of Task Force	Number	0.18	2	1	--	--	0

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
			[1.3.4] Preparation of media plan	Date	0.18	30/04/2011	15/05/2011	30/05/2011	30/06/2011	01/07/2011
			[1.3.5] Promotional road shows at domestic and international level	Number	0.18	2	1	--	--	0
			[1.3.6] Obtain feedback from the participants	Date	0.18	01/12/2011	10/12/2011	20/12/2011	25/12/2011	31/12/2011
		[1.4] Arrangements for India Chem 2012	[1.4.1] Constitution of Steering Committee	Date	0.24	10/04/2011	30/04/2011	15/05/2011	30/05/2011	01/07/2011
			[1.4.2] Meetings of Steering Committee	Number	0.24	3	2	1	--	0
			[1.4.3] Preparation of Media Plan.	Date	0.24	30/04/2011	15/05/2011	31/05/2011	30/06/2011	01/07/2011
			[1.4.4] Promotional road shows - domestic and -international level	Number	0.24	3	2	1	--	0
		[1.5] International Year of Chemistry 2011	[1.5.1] Launch of Media campaign.	Date	0.33	31/08/2011	15/09/2011	30/09/2011	31/10/2011	01/11/2011
			[1.5.2] Holding of two Workshops on cleaner technologies/sustainable development.	Number	0.33	2	1	--	--	0
			[1.5.3] Assessment of the media campaign	Date	0.33	15/02/2012	29/02/2012	10/03/2012	20/03/2012	28/03/2012
		[1.6] Study on alternatives to DDT	[1.6.1] -Commencement of study.	Date	0.50	30/06/2011	15/07/2011	31/07/2011	16/08/2011	31/08/2011
			[1.6.2] Reviews	Number	0.50	2	1	--	--	0

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		[1.7] Holding International Conferences	[1.7.1] Holding International Conferences	Number	2.00	4	3	2	1	0
		[1.8] Taking up of the matters of commercial importance such as imposition of anti-dumping and safeguard duties with other related Ministries	[1.8.1] Prompt handling and follow up	Number of days	0.99	7	10	14	21	22
[2] Promoting investment and growth in the petrochemical sector	12.00	[2.1] Monitoring of the PCPIRs	[2.1.1] Notification of Orissa PCPIR by Govt of Orissa in terms of the MoA	Date	2.00	01/03/2012	05/03/2012	15/03/2012	22/03/2012	31/03/2012
			[2.1.2] Constitution of a Management Board by Govt of Orissa in terms of the MoA	Date	2.00	30/09/2011	05/10/2011	17/10/2011	24/10/2011	31/10/2011
		[2.2] Processing of the PCPIR proposal of Govt of Tamil Nadu	[2.2.1] Submission of note to CCEA within forty five days after clearance by HPC	Number of days	3.00	30	40	45	50	55
		[2.3] Promotion of PCPIRs	[2.3.1] Road shows to promote PCPIRs	Number	2.00	4	3	2	1	0
		[2.4] Enhancing the effectiveness of the PCPIR policy	[2.4.1] Preparation of a note to HPC/CoS on review of the PCPIR policy	Date	1.00	30/06/2011	15/07/2011	31/07/2011	15/08/2011	31/08/2011
			[2.4.2] Preparation of a scheme under the PCPIR policy for targeted financial assistance to PCPIRs	Date	1.00	30/09/2011	15/10/2011	31/10/2011	15/11/2011	30/11/2011
		[2.5] Taking up matters such as imposition of anti-dumping and	[2.5.1] Prompt handling and follow up	Number of days	1.00	7	10	14	21	22

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		safeguard duties with other related Ministries.								
[3] Implementation of the Assam Gas Cracker Project	10.00	[3.1] Achievement against business plan of the year	[3.1.1] Financial progress against the business plan of the year	%	3.00	100	90	85	80	75
		[3.2] Ensuring timely financial releases	[3.2.1] Release of capital subsidy under BE	Date	2.00	30/09/2011	15/10/2011	20/10/2011	27/10/2011	31/03/2011
			[3.2.2] Release of capital subsidy under RE	Date	2.00	28/02/2012	10/03/2012	15/03/2012	20/03/2012	26/03/2012
		[3.3] Effective Project Monitoring as per schedule	[3.3.1] Physical progress	Number	1.50	9	7	6	4	3
			[3.3.2] Placement of orders fo machinery against the committed number of orders	%	1.50	100	90	80	60	50
[4] Facilitate human resource development in downstream industries through CIPET	10.00	[4.1] Expansion of Services of CIPET over corresponding period of the last year	[4.1.1] % Increase in number of students over previous year	%	2.50	10	8	6	4	2
			[4.1.2] % Increase in revenue from technology support services over previous year.	%	2.50	20	15	12	10	5
			[4.1.3] % Increase in output of ARSTP and LARPM over previous year.	%	2.50	20	15	12	10	5
		[4.2] Human Resource Development in CIPET	[4.2.1] % Increase in Faculty training	%	2.50	20	15	12	10	5
[5] Effective Coordination for implementation of rehabilitation measures for Bhopal Gas Leak Disaster Victimes	10.00	[5.1] Disbursal of ex-gratia	[5.1.1] Issuance of notice to all eligible for ex-gratia	Date	5.00	31/07/2011	15/08/2011	31/08/2011	15/09/2011	30/09/2011

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
			[5.1.2] Adjudication and disbursal of ex-gratia to eligible victims by31.10.2011	% of cases disbursed	5.00	90	85	80	76	75
[6] Comp-liance of Chemical Weapons Convention (CWC)	8.00	[6.1] Timely submission of Declaration to National Authority-CWC	[6.1.1] Submission of Annual Declaration of Anticipated Activities	Date	1.50	15/10/2011	18/10/2011	25/10/2011	29/10/2011	01/11/2011
			[6.1.2] Submission of Annual Declaration of Past Activities (ADPA)	Date	1.50	15/03/2012	20/03/2012	25/03/2012	31/03/2012	01/04/2012
		[6.2] Spreading awareness on CWC	[6.2.1] Holding awareness programs on CWC for industry	Number	1.00	12	10	08	07	06
		[6.3] Assist industry in compliance of CWC	[6.3.1] Review of CWC Help Desks	Number	0.50	6	5	4	3	2
		[6.4] Amendment to the CWC Act	[6.4.1] Submission of the proposal to the Cabinet.	Date	1.50	31/08/2011	15/09/2011	30/09/2011	15/10/2011	31/10/2011
		[6.5] Commissioning of system of On-line submission of declarations	[6.5.1] Commissioning of the system	Date	1.00	30/09/2011	14/10/2011	30/11/2011	15/12/2011	31/12/2011
		[6.6] Training of industry personnel concerned with submission of declarations	[6.6.1] Workshops on on-line submissions of declarations	Number	0.50	2	1	–	--	0
		[6.7] Workshop on chemical safety and sustainable development with OPCW/Indian Chemical Council	[6.7.1] Holding of such workshops	Number	0.50	2	1	–	--	0
[7] Operationalising the National Policy on Petrochemicals	8.00	[7.1] Undertaking initiatives under the National Policy on	[7.1.1] Selection of receipients of National Awards	Date	1.50	15/02/2012	01/03/2012	15/03/2012	20/03/2012	31/03/2012

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
		Petrochemicals								
			[7.1.2] Release of 2nd instalment for Centres of Excellence	Date	1.50	15/12/2011	31/01/2012	15/02/2012	28/02/2012	01/03/2012
			[7.1.3] Final approval of two Plastic Parks	Date	1.50	01/02/2012	15/02/2012	01/03/2012	15/03/2012	31/03/2012
			[7.1.4] Holding of meetings of the Plastic Development council	Number	0.50	2	1	–	--	0
			[7.1.5] Holding of Meetings of the Inter-Ministerial Committee on Thrust Areas	Number	0.50	2	1	–	--	0
			[7.1.6] Creation of testing facilities as a follow up to Report on Augmentation of testing facilities	Date	1.50	01/12/2011	01/01/2012	20/01/2012	15/02/2012	01/03/2012
			[7.1.7] Deliberations with stakeholders as a follow up to the Report on alternate feedstocks for petrochemicals	Number	1.00	3	2	–	--	1
[8] Improving Performance of Hindustan Insectides Limited (HIL)	3.00	[8.1] Review of progress under MOU.	[8.1.1] Number of reviews	Number	1.50	4	3	2	1	0
		[8.2] Evaluation of Plan proposals and their sanction	[8.2.1] Release of the budgeted amount of plan loan	Date	0.75	10/03/2012	15/03/2012	20/03/2012	25/03/2012	26/03/2012
		[8.3] Oversee implementation of Project of Multi Product Plant	[8.3.1] Date of completion of the project	Date	0.75	31/12/2011	31/01/2012	29/02/2012	15/02/2012	31/03/2012

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
[9] Improving Performance of Hindustan Organic Chemicals Ltd. (HOCL)	3.00	[9.1] Review of Implementation of Action Plan and progress undue MOU.	[9.1.1] Number of reviews	Number	1.50	4	3	2	1	0
		[9.2] Overseeing completion of implementation of ERP in HOCL	[9.2.1] Date of ERP going on-line	Date	1.50	01/12/2011	01/01/2012	15/01/2012	31/01/2012	15/02/2012
[10] Addressing environmental concerns in plastics	4.00	[10.1] Promotion of plastic waste management	[10.1.1] Deliberations with Industry for Way Forward	number	1.00	4	3	2	1	0
			[10.1.2] Projects on recycling technologies with Ministry of Urban Development/urban local bodies for funding under JNNURM	number	2.00	3	2	1	--	0
			[10.1.3] Awareness Building programmers with Industry	number	1.00	3	2	1	--	0
[11] Enhancing effectiveness of Institute of Pesticide Formulation Technology	2.00	[11.1] Strengthening and Expansion of services	[11.1.1] % Increase in Revenue as compared to 2010-11	%	2.00	25	20	15	10	5
* Efficient Functioning of the RFD System	3.00	Timely submission of Draft for Approval	On-time submission	Date	2.0	07/03/2011	08/03/2011	09/03/2011	10/03/2011	11/03/2011
		Timely submission of Results	On- time submission	Date	1.0	01/05/2012	03/05/2012	04/05/2012	05/05/2012	06/05/2012
* Improving Internal Efficiency / Responsiveness / Service delivery of Ministry / Department	10.00	Implementation of Sevottam	Resubmission of revised draft of Citizens' / Clients' Charter	Date	2.0	15/12/2011	20/12/2011	25/12/2011	28/12/2011	31/12/2011

* Mandatory Objective(s)

Section 2:
Inter se Priorities among Key Objectives, Success indicators and Targets

Objective	Weight	Action	Success Indicator	Unit	Weight	Target / Criteria Value				
						Excellent	Very Good	Good	Fair	Poor
						100%	90%	80%	70%	60%
			Independent Audit of Implementation of Grievance Redress Mechanism	%	2.0	100	95	90	85	80
		Ensure compliance with Section 4(1) (b) of the RTI Act, 2005	No. of items on which information is uploaded by February 10, 2012	No	2.0	16	15	14	13	12
		Identify potential areas of corruption related to departmental activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption.	Date	2.0	10/02/2012	15/02/2012	20/02/2012	24/02/2012	29/02/2012
		Develop an action plan to implement ISO 9001 certification	Finalize an action plan to implement ISO 9001 certification	Date	2.0	10/02/2012	15/02/2012	20/02/2012	24/02/2012	29/02/2012
* Ensuring compliance to the Financial Accountability Framework	2.00	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.	%	0.5	100	90	80	70	60
		Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentge of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year.	%	0.5	100	90	80	70	60
		Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2011.	Percentage of outstanding ATNs disposed off during the year.	%	0.5	100	90	80	70	60
		Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2011	Percentage of outstanding ATRs disposed off during the year.	%	0.5	100	90	80	70	60

* Mandatory Objective(s)

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
[1] Facilitate the growth and development of the chemical sector	[1.1] Formulation of a National Policy on Chemicals	[1.1.1] Finalization of the report of the Task Force	Date	--	--	31/07/2011	–	--
		[1.1.2] Getting comments from concerned Deptts./Ministries on the report of Task Force	Date	--	--	30/09/2011	–	--
		[1.1.3] Follow up meeting with the concerned Ministries for finalizing the action plan for implementation of the recommendation of the Task Force	Date	--	--	30/11/2011	–	--
		[1.1.4] Preparation of the draft of the National Policy on Chemicals for Cabinet approval	Date	--	--	31/12/2011	–	--
	[1.2] Setting up of the National Institute of Chemical Safety and Management (NISCM)	[1.2.1] Formulation of the Charter	Date	--	--	31/07/2011	–	--
		[1.2.2] Commencement of the functioning of the Institute	Date	--	--	30/11/2011	–	--
	[1.3] Organization of India Chem Gujarat	[1.3.1] Constitution of a Task Force-	Date	--	--	30/04/2011	–	--
		[1.3.2] Participation by Companies.	Number	--	--	112	–	--
		[1.3.3] Meetings of Task Force	Number	--	--	1	–	--
		[1.3.4] Preparation of media plan	Date	--	--	15/05/2011	–	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
		[1.3.5] Promotional road shows at domestic and international level	Number	--	--	1	--	--
		[1.3.6] Obtain feedback from the participants	Date	--	--	10/12/2011	--	--
	[1.4] Arrangements for India Chem 2012	[1.4.1] Constitution of Steering Committee	Date	--	--	30/04/2011	--	--
		[1.4.2] Meetings of Steering Committee	Number	--	--	2	--	--
		[1.4.3] Preparation of Media Plan.	Date	--	--	15/05/2011	--	--
		[1.4.4] Promotional road shows - domestic and - international level	Number	--	--	2	--	--
	[1.5] International Year of Chemistry 2011	[1.5.1] Launch of Media campaign.	Date	--	--	15/09/2011	--	--
		[1.5.2] Holding of two Workshops on cleaner technologies/sustainable development.	Number	--	--	1	--	--
		[1.5.3] Assessment of the media campaign	Date	--	--	29/02/2012	--	--
	[1.6] Study on alternatives to DDT	[1.6.1] -Commencement of study.	Date	--	--	15/07/2011	--	--
		[1.6.2] Reviews	Number	--	--	1	--	--
	[1.7] Holding International Conferences	[1.7.1] Holding International Conferences	Number	--	--	3	3	3

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
	[1.8] Taking up of the matters of commercial importance such as imposition of anti-dumping and safeguard duties with other related Ministries	[1.8.1] Prompt handling and follow up	Number of days	--	--	10	--	--
[2] Promoting investment and growth in the petrochemical sector	[2.1] Monitoring of the PCPIRs	[2.1.1] Notification of Orissa PCPIR by Govt of Orissa in terms of the MoA	Date	--	--	05/03/2012	--	--
		[2.1.2] Constitution of a Management Board by Govt of Orissa in terms of the MoA	Date	--	--	05/10/2011	--	--
	[2.2] Processing of the PCPIR proposal of Govt of Tamil Nadu	[2.2.1] Submission of note to CCEA within forty five days after clearance by HPC	Number of days	--	--	40	--	--
	[2.3] Promotion of PCPIRs	[2.3.1] Road shows to promote PCPIRs	Number	--	--	3	--	--
	[2.4] Enhancing the effectiveness of the PCPIR policy	[2.4.1] Preparation of a note to HPC/CoS on review of the PCPIR policy	Date	--	--	15/07/2011	--	--
		[2.4.2] Preparation of a scheme under the PCPIR policy for targeted financial assistance to PCPIRs	Date	--	--	15/10/2011	--	--
	[2.5] Taking up matters such as imposition of anti-dumping and safeguard duties with other related Ministries.	[2.5.1] Prompt handling and follow up	Number of days	--	--	10	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
[3] Implementation of the Assam Gas Cracker Project	[3.1] Achievement against business plan of the year	[3.1.1] Financial progress against the business plan of the year	%	54	100	90	100	--
	[3.2] Ensuring timely financial releases	[3.2.1] Release of capital subsidy under BE	Date	13/06/2008	31/03/2010	15/10/2011	–	--
		[3.2.2] Release of capital subsidy under RE	Date	--	--	10/03/2012	–	--
	[3.3] Effective Project Monitoring as per schedule	[3.3.1] Physical progress	Number	3	3	7	10	--
		[3.3.2] Placement of orders fo machinery against the committed number of orders	%	--	--	90	–	--
[4] Facilitate human resource development in downstream industries through CIPET	[4.1] Expansion of Services of CIPET over corresponding period of the last year	[4.1.1] % Increase in number of students over previous year	%	54	20	8	8	8
		[4.1.2] % Increase in revenue from technology support services over previous year.	%	46	20	15	15	15
		[4.1.3] % Increase in output of ARSTP and LARPM over previous year.	%	--	20	15	15	--
	[4.2] Human Resource Development in CIPET	[4.2.1] % Increase in Faculty training	%	26.3	20	15	15	15
[5] Effective Coordination for implementation of rehabilitation measures for	[5.1] Disbursal of ex-gratia	[5.1.1] Issuance of notice to all eligible for ex-gratia	Date	--	--	15/08/2011	–	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
Bhopal Gas Leak Disaster Victimes								
		[5.1.2] Adjudication and disbursal of ex-gratia to eligible victims by31.10.2011	% of cases disbursed	--	--	85	--	--
[6] Comp-liance of Chemical Weapons Convention (CWC)	[6.1] Timely submission of Declaration to National Authority-CWC	[6.1.1] Submission of Annual Declaration of Anticipated Activities	Date	--	--	18/10/2011	18/10/2012	18/10/2013
		[6.1.2] Submission of Annual Declaration of Past Activities (ADPA)	Date	--	--	20/03/2012	20/03/2013	--
	[6.2] Spreading awareness on CWC	[6.2.1] Holding awareness programs on CWC for industry	Number	--	--	10	10	10
	[6.3] Assist industry in compliance of CWC	[6.3.1] Review of CWC Help Desks	Number	--	--	5	5	3
	[6.4] Amendment to the CWC Act	[6.4.1] Submission of the proposal to the Cabinet.	Date	--	--	15/09/2011	--	--
	[6.5] Commissioning of system of On-line submission of declarations	[6.5.1] Commissioning of the system	Date	--	--	14/10/2011	--	--
	[6.6] Training of industry personnel concerned with submission of declarations	[6.6.1] Workshops on on-line submissions of declarations	Number	--	--	1	1	1
	[6.7] Workshop on chemical safety and sustainable development with OPCW/Indian Chemical Council	[6.7.1] Holding of such workshops	Number	--	--	1	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
[7] Operationalising the National Policy on Petrochemicals	[7.1] Undertaking initiatives under the National Policy on Petrochemicals	[7.1.1] Selection of receipients of National Awards	Date	--	15/02/2010	01/03/2012	--	--
		[7.1.2] Release of 2nd instalment for Centres of Excellence	Date	--	15/02/2010	31/01/2012	--	--
		[7.1.3] Final approval of two Plastic Parks	Date	--	28/02/2010	15/02/2012	--	--
		[7.1.4] Holding of meetings of the Plastic Development council	Number	--	--	1	--	--
		[7.1.5] Holding of Meetings of the Inter-Ministerial Committee on Thrust Areas	Number	--	--	1	--	--
		[7.1.6] Creation of testing facilities as a follow up to Report on Augmentation of testing facilities	Date	--	--	01/01/2012	--	--
		[7.1.7] Deliberations with stakeholders as a follow up to the Report on alternate feedstocks for petrochemicals	Number	--	--	2	--	--
[8] Improving Performance of Hindustan Insectides Limited (HIL)	[8.1] Review of progress under MOU.	[8.1.1] Number of reviews	Number	--	--	3	3	3
	[8.2] Evaluation of Plan proposals and their sanction	[8.2.1] Release of the budgeted amount of plan loan	Date	--	--	15/03/2012	15/03/2013	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
	[8.3] Oversee implementation of Project of Multi Product Plant	[8.3.1] Date of completion of the project	Date	--	--	31/01/2012	--	--
[9] Improving Performance of Hindustan Organic Chemicals Ltd. (HOCL)	[9.1] Review of Implementation of Action Plan and progress undue MOU.	[9.1.1] Number of reviews	Number	--	--	3	3	3
	[9.2] Overseeing completion of implementation of ERP in HOCL	[9.2.1] Date of ERP going on-line	Date	--	--	01/01/2012	--	--
[10] Addressing environmental concerns in plastics	[10.1] Promotion of plastic waste management	[10.1.1] Deliberations with Industry for Way Forward	number	--	--	3	--	--
		[10.1.2] Projects on recycling technologies with Ministry of Urban Development/urban local bodies for funding under JNNURM	number	--	--	2	--	--
		[10.1.3] Awareness Building programmers with Industry	number	--	--	2	--	--
[11] Enhancing effectiveness of Institute of Pesticide Formulation Technology	[11.1] Strengthening and Expansion of services	[11.1.1] % Increase in Revenue as compared to 2010-11	%	150.12	25	20	20	20
* Efficient Functioning of the RFD System	Timely submission of Draft for Approval	On-time submission	Date	30/11/2009	05/03/2010	07/03/2011	--	--
	Timely submission of Results	On- time submission	Date	29/04/2010	02/05/2011	03/05/2012	--	--

* Mandatory Objective(s)

* Mandatory Objective(s)

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
* Improving Internal Efficiency / Responsiveness / Service delivery of Ministry / Department	Implementation of Sevottam	Resubmission of revised draft of Citizens' / Clients' Charter	Date	--	--	20/12/2011	--	--
		Independent Audit of Implementation of Grievance Redress Mechanism	%	--	--	95	--	--
	Ensure compliance with Section 4(1) (b) of the RTI Act, 2005	No. of items on which information is uploaded by February 10, 2012	No	--	--	15	--	--
	Identify potential areas of corruption related to departmental activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption.	Date	--	--	15/02/2012	--	--
	Develop an action plan to implement ISO 9001 certification	Finalize an action plan to implement ISO 9001 certification	Date	--	--	15/02/2012	--	--
* Ensuring compliance to the Financial Accountability Framework	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.	%	--	100	90	--	--
	Timely submission of ATRs to the PAC Sectt. on PAC Reports.	Percentge of ATRs submitted within due date (6 months) from date of presentation of Report to Parliament by PAC during the year.	%	--	100	90	--	--
	Early disposal of pending ATNs on Audit Paras of C&AG Reports presented to Parliament before 31.3.2011.	Percentage of outstanding ATNs disposed off during the year.	%	--		90	--	--

Section 3:
Trend Values of the Success Indicators

Objective	Action	Success Indicator	Unit	Actual Value FY 09/10	Actual Value FY 10/11	Target Value FY 11/12	Projected Value for FY 12/13	Projected Value for FY 13/14
	Early disposal of pending ATRs on PAC Reports presented to Parliament before 31.3.2011	Percentage of outstanding ATRs disposed off during the year.	%	--	100	90	--	--

* Mandatory Objective(s)

Section 4:
Description and Definition of Success Indicators

1. HPC - High Powered Committee
2. CCEA - Cabinet Committee on Economic Affairs
3. ADPA - Annual Declaration on Past Activities
4. PCPIR - Petroleum Chemicals and Petrochemical Investment Region
5. MoA - Memorandum of Agreement
6. CIPET - Central Institute of Plastic Engineering and Technology
7. ARSTP- Advance Research School for Technology & Product Simulation
8. LARPM - Laboratory for Advanced Research in Polymeric Materials
9. MoU - Memorandum of Understanding

Section 5:
Specific Performance Requirements

In respect of the Objective : Facilitate the Growth and Development of the Chemical Sector, the success indicator of assessing the impat of media campaign in respect of International Year of Chemistry is subject to the industry organisations, who are responsible for the campaign being able to hire a private media agency for the purpose.

In respect of the Objective : Promoting Investment and Growth in the Petrochemical Sector, relating to PCPIRs,notification of the Orissa PCPIR areas and the constitution of Management Board, though actively monitored and reviewed from time to time by this Department, will have to be actually undertaken by Government of Orissa.

In respect of the Objective : Implementation of Assam Gas Cracker Project, achievement of success indicators willdepend on sanction/release of funds by Planning Commission/Department of Expenditure. Further, the project hassome acknowledged slippages and efforts are on to bridge the gaps. As such, realistically speaking 80% achievementof financial target for the year should be treated as ‘excellent’. However, to keep the pressure on for the project to meetthe business plan targets, achievement of 100% target has been indicated as ‘excellent’. In this context, it may be noted that an MoU has already been signed by the Department with the PSU, Brahmaputra Cracker and Polymer Ltd.(BCPL). Release of capital subsidy by the Department will depend on physical progress as well as utilization of thefunds by BCPL. Also, given the geographical location of the project, rainfall and other factors also have an impact on the progress in the project.

In respect of the Objective : Effective co-ordination for implementation of rehabilitation measures for Bhopal Gas Leak Disaster Victims, the adjudication and disbursal of ex-gratia will depend on the victims appearing before the Office of the Welfare Commissioner for getting their case adjudicated.

Section 6:
OutCome/Impact of Department/Ministry

OutCome/Impact of Department/Minist	Jointly responsible for influencing this outcome / impact with the following department (s) / ministry(ies)	Success Indicator	Unit	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
1 Growth of the Chemical Sector	State Governments, Ministry of Commerce, Ministry of Finance	Growth over previous year	%					
2 Growth of the petrochemical sector	State Governments, Ministry of Commerce, Ministry of Finance	Growth over previous year	%					
3 Improved safety in the Chemical, Petrochemical and the Plastic Sector	Ministry of Labour, Ministry of Environment & Forests, State Directorate of Factories	TBD	TBD					
4 Improved Pollution Control in the Chemical, Petrochemical and Plastic Sector	Ministry of Environment and Forests, Central and State Pollution Control Boards	TBD	TBD					

Annexure - II

PRODUCT-WISE INSTALLED CAPACITY & PRODUCTION OF MAJOR CHEMICALS

(In thousand MT)

1	2	3	4	5	6	7	8	9	0	1	2	3		
SODA ASH	2951.00	2951.00	2951.00	2298.24	2078.06	2005.51	1989.05	2058.34	2298.75	2410.82	11.68	4.88
CAUSTIC SODA	2689.97	2712.07	2712.07	1882.57	1914.22	2050.69	2050.03	2103.75	2178.45	2215.66	3.55	1.71
LIQUID CHLORINE	2035.68	2034.68	2034.68	1293.80	1276.71	1387.13	1402.84	1439.92	1503.99	1486.10	4.45	-1.19
ALUMINIUM FLUORIDE	18.16	18.16	18.16	20.08	20.30	19.43	15.07	11.55	9.80	7.30	-15.16	-25.51
CALCIUM CARBIDE	112.00	112.00	112.00	64.64	91.95	97.41	66.55	22.02	44.70	66.39	102.98	48.52
CARBON BLACK	463.00	603.00	607.00	395.10	422.47	426.96	371.40	419.43	452.44	447.67	7.87	-1.05
POTASSIUM CHLORATE	3.00	3.00	3.00	3.39	4.13	5.36	5.79	2.60	0.61	0.34	-76.55	-44.26
TITANIUM DIOXIDE	76.05	76.05	76.05	60.29	62.92	59.15	53.24	61.32	64.01	52.14	4.38	-18.54
RED PHOSPHORUS	1.68	1.68	1.68	0.46	0.54	0.54	0.46	0.58	0.48	0.56	-17.24	16.67
ACETIC ACID	300.95	300.95	300.95	305.91	287.85	316.01	203.34	146.09	156.48	160.73	7.11	2.72
ACETIC ANHYDRIDE	55.32	55.32	55.32	28.63	30.60	29.32	36.14	43.42	43.90	43.84	1.10	-0.14
ACETONE	43.94	47.82	47.82	36.79	44.22	47.19	46.83	44.25	50.50	42.80	14.12	-15.25
PHENOL	70.95	77.13	77.13	58.21	71.27	74.94	75.75	71.59	79.81	65.92	11.48	-17.40
METHANOL	473.31	496.41	496.41	386.76	396.23	351.73	237.66	330.83	370.02	359.93	11.85	-2.73
FORMALDEHYDE	389.04	389.04	390.29	249.39	234.82	242.76	231.84	259.67	266.60	263.80	2.67	-1.05
NITROBENZENE	36.00	36.00	48.00	23.59	14.73	13.11	13.93	12.34	9.94	13.98	-19.45	40.64
MALEIC ANHYDRIDE	23.15	23.15	23.15	12.75	12.95	4.25	2.97	2.55	2.80	2.63	9.67	-6.07
PENTA-ERYTHRITOL	18.60	18.60	21.70	15.18	13.73	14.95	13.82	11.21	11.72	11.40	4.59	-2.73
ANILINE	39.10	39.10	60.10	48.11	47.37	44.98	29.67	39.38	30.76	40.09	-21.90	30.33
CHLORO METHANES	83.76	83.76	94.70	93.80	92.19	85.86	96.22	91.12	110.78	98.57	21.58	-11.02
ISOBUTYLENE	3.50	3.50	3.50	2.31	2.52	3.33	3.34	4.07	2.26	1.94	-44.44	-14.16
ONCB	30.00	30.00	30.00	14.75	12.82	13.81	15.71	15.44	16.69	13.74	8.11	-17.68
PNCB	30.00	30.00	30.00	22.23	18.46	20.92	25.25	23.57	24.86	22.14	5.49	-10.94
MEK	5.00	5.00	5.00	1.36	0.10	0.00	0.00	0.00	0.00	2.19		
ACETALDEHYDE	238.40	238.40	175.23	159.11	163.87	182.48	108.07	59.25	32.25	65.39	-45.57	102.76
ETHANOLAMINES	10.00	10.00	10.00	8.65	7.27	9.86	12.31	7.00	3.45	8.73	-50.72	153.04
ETHYL ACETATE	118.12	118.12	139.92	70.29	87.67	90.84	93.22	103.96	114.74	167.01	10.37	45.56
ORTHO NITRO TOLUENE	8.80	8.80	16.40	7.45	6.80	5.72	8.10	13.80	14.20	11.14	2.91	-21.55
D.D.T.	6.34	6.34	6.34	4.43	4.50	3.44	3.31	3.61	3.09	3.62	-14.38	17.15
MALATHION	5.60	5.60	4.00	2.74	4.30	6.30	3.38	1.67	3.05	2.54	82.63	-16.72
PARATHION (METHYL)	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00		

DIMETHOATE	5.40	5.40	5.40	0.89	1.00	0.89	0.57	0.98	1.17	0.73	19.39	-37.61
D.D.V.P.	3.68	3.68	3.68	3.84	3.89	3.48	3.00	3.87	3.48	4.64	-10.11	33.55
QUINALPHOS	2.80	2.80	2.80	0.86	0.82	0.52	0.84	0.99	1.01	0.99	2.12	-1.98
MONOCROTOPHOS	10.44	12.84	12.84	4.90	4.91	5.12	4.57	5.74	9.93	9.58	73.09	-3.58
PHOSPHAMIDON	3.20	3.40	3.20	0.54	0.37	0.71	0.85	1.00	0.29	0.06	-71.53	-79.65
PHORATE	7.10	7.10	7.10	8.53	8.45	6.08	4.67	4.73	5.36	4.61	13.32	-13.99
ETHION	4.02	4.02	4.02	2.03	2.60	2.20	1.41	1.50	1.92	1.33	28.00	-30.73
ENDOSULPHAN	14.20	14.20	14.20	8.30	9.31	10.54	11.35	9.90	11.49	1.35	16.06	-88.25
FENVALERATE	2.44	2.44	2.44	0.57	0.52	0.72	0.49	0.53	0.80	0.55	50.09	-31.25
CYPERMETHRIN	7.13	7.13	10.59	6.48	5.06	4.66	4.03	6.23	4.95	8.79	-20.48	77.62
ANILOPHOS	0.00	0.00	0.00	0.20	0.02	0.00	0.00	0.00	0.00	0.00		
ACEPHATE	9.82	10.96	10.96	9.46	9.27	10.73	10.25	11.55	14.28	15.97	23.64	11.83
CHLORPYRIPHOS	11.70	11.70	12.30	6.06	6.17	6.55	6.55	6.12	6.41	5.11	4.77	-20.28
PHOSALONE	0.00	0.00	0.00	0.27	0.25	0.50	0.00	0.00	0.00	0.00		
METASYSTOX	0.00	0.00	0.00	0.32	0.63	0.00	0.00	0.00	0.00	0.00		
FENTHION	0.00	0.00	0.00	0.33	0.12	0.00	0.00	0.00	0.00	0.00		
TRIAZOPHOS	1.50	1.50	1.50	2.85	1.84	1.84	2.06	0.88	1.58	0.72	79.14	-54.43
LINDANE	0.33	0.33	0.33	0.18	0.25	0.08	0.00	0.00	0.00	0.00		
TEMEPHOS	0.50	0.50	0.50	0.03	0.10	0.23	0.27	0.08	0.12	0.13	38.10	12.93
DELTAMETHRIN	0.30	0.30	0.28	0.31	0.34	0.26	0.03	0.02	0.52	0.33	2958.82	-36.54
ALPHAMETHRIN	1.42	1.42	1.42	0.25	0.17	0.21	0.02	0.00	0.31	0.32		4.26
CAPTAN & CAPTAFOL	1.80	1.80	1.80	0.01	0.19	0.00	0.00	0.00	0.72	0.92		27.78
ZIRAM(THIO BARBAMATE)	0.45	0.45	0.45	0.11	0.24	0.19	0.07	0.00	0.49	0.53		8.16
CARBENDZIM(BAVISTIN)	1.20	1.20	1.20	0.53	0.14	0.07	0.20	0.38	0.59	0.43	54.19	-26.66
CALIXIN	0.00	0.00	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00		
MANCOZAB	42.76	42.76	42.76	18.86	22.88	27.12	35.34	31.49	26.05	43.71	-17.27	67.79
COPPER-OXYCHLORIDE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2, 4-D	0.00	0.00	0.00	0.33	0.00	0.27	0.21	0.00	0.00	0.00		
BUTACHLOR	0.50	0.50	0.50	0.32	0.18	0.03	0.12	0.24	0.29	0.11	21.34	-62.07
ISOPROTURON	6.25	6.25	6.25	4.30	3.15	2.96	2.98	2.91	3.68	2.53	26.46	-31.30
GLYPHOSATE	7.60	7.60	11.02	1.52	2.89	2.58	4.34	4.66	4.86	5.24	4.29	7.82
DIURON	0.00	0.00	0.00	0.00	0.00	0.08	0.01	0.13	0.20	0.30	58.73	50.00
ATRAZIN	0.50	0.50	0.50	0.00	0.09	0.22	0.26	0.26	0.24	0.66	-8.75	175.00
FLUCHLORALIN	0.00	0.00	0.00	0.12	0.10	0.00	0.00	0.00	0.00	0.00		
ZINC PHOSPHIDE	1.10	1.10	1.10	0.70	1.11	0.95	0.91	0.92	0.86	0.89	-7.07	4.21
ALUMINIUM PHOSPHIDE	3.90	3.90	3.90	1.98	2.08	2.53	2.58	3.25	2.82	3.14	-13.23	11.35
DICOFOL	0.15	0.15	0.15	0.04	0.05	0.09	0.09	0.02	0.04	0.08	100.00	100.00
[redacted]												
[redacted]												
AZO DYES	9.90	9.90	9.90	5.20	4.70	6.40	3.90	3.80	4.10	3.50	7.89	-14.63
ACID DIRECT DYES	24.40	25.60	25.60	0.11	3.00	7.70	8.10	11.90	15.70	13.30	31.93	-15.29
DISPERSE DYES	36.60	36.60	54.60	16.70	20.80	21.80	23.30	25.10	28.60	29.30	13.94	2.45
FAST COLOUR BASES	0.50	0.50	0.50	0.00	0.01	0.04	0.04	0.05	0.09	0.04	75.51	-56.98
INGRAIN DYES	1.96	1.96	1.61	0.42	0.57	1.20	1.09	0.93	0.70	0.98	-24.41	40.00
OIL SOLUBLE (SOLVENT DYES)	3.60	3.60	3.60	0.70	0.75	1.20	2.20	2.25	2.02	2.60	-10.31	28.84

OPTICAL WHITENING AGENTS	15.10	15.10	15.10	2.70	2.99	4.70	5.50	8.40	10.40	10.20	23.81	-1.92
ORGANIC PIGMENT COLOURS	12.76	12.76	22.59	13.57	16.45	25.66	13.97	18.24	21.83	20.24	19.70	-7.28
PIGMENT EMULSION	4.81	4.81	4.81	2.22	1.82	1.90	3.39	4.79	5.63	4.96	17.56	-11.90
REACTIVE DYES	74.30	102.50	102.50	22.60	31.10	40.50	40.58	62.53	64.66	76.71	3.41	18.64
SULPHUR DYES (SULPHUR BLACK)	3.00	3.00	3.00	3.00	5.72	4.24	5.64	8.69	8.60	7.02	-1.05	-18.37
VAT DYES	2.98	2.98	2.98	1.60	1.49	1.60	1.46	1.70	1.94	1.69	14.12	-12.89
SOLUBILISED VAT DYES	0.13	0.13	0.13	0.02	0.02	0.02	0.20	0.29	0.04	0.36	-87.63	902.82
NAPTHOLS	0.90	0.90	0.90	0.44	0.32	0.14	0.15	0.08	0.07	0.04	-9.09	-38.57
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]							[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]						[illegible]	[illegible]	[illegible]	

@ Coverage of enterprises has been enlarged and production has been revised accordingly since 2005-06

Annexure - III

PRODUCT-WISE INSTALLED CAPACITY & PRODUCTION OF MAJOR PETROCHEMICALS

(In thousand MT)

1	2	3	4	5	6	7	8	9	0	1	2	3
1. Polyester Filament Yarn (PFY) ($)	1548	1592	1791	1015	1194	1350	1262	1345	1496	1490	11.23	-0.40
2. Nylon Filament Yarn (NFY) ($$)	20	20	20	40	32	28	28	30	33	30	10.00	-9.09
3. Nylon Industrial Yarn (NIY) ($$)	48	48	48	55	72	84	69	88	86	88	-2.27	2.33
4. Polypropylene Filament Yarn (PPFY)($$)	11	8	8	9	10	10	9	9	6	7	-33.33	16.67
Sub Total Yarn (1+2+3+4)	1627	1668	1867	1119	1308	1472	1368	1472	1621	1615	10.12	-0.37
5. Acrylic Fibre (Inc. Dry Spun) (AF)	93	95	95	114	107	85	78	91	76	76	-16.48	0.00
6. Polyester Staple Fibre (PSF)	1174	1174	1174	623	785	919	843	980	1037	953	5.82	-8.10
7. Polypropylene Staple Fibre (PPSF)	4	4	5	3	4	3	3	3	4	4	33.33	0.00
8. Polyester Staple Fibrefil (PSFF)	72	72	72	47	47	45	51	54	53	49	-1.85	-7.55
1. Linear Low Density Polyethylene (LLDPE)	No separate Capacity			689	772	837	817	683	897	1033	31.33	15.16
2. High Density Polyethylene (HDPE)	No separate Capacity			1035	958	974	942	856	887	1119	3.62	26.16
LLDPE/HDPE (Combined) ($$$)	2085	2735	2735	1724	1730	1811	1759	1539	1784	2152	15.92	20.63
3. Low Density Polyethylene (LDPE)	160	160	160	201	195	198	191	193	179	194	-7.25	8.38
4. Polystyrene (PS)	462	462	462	311	285	274	240	270	296	288	9.63	-2.70
5. Polypropylene (PP)	2076	2676	2676	1541	2001	1978	1771	1617	1684	2209	4.14	31.18
6. Poly Vinyl Chloride (PVC)	1279	1279	1279	953	926	998	1051	1110	1278	1296	15.14	1.41
7. Expandable Polystyrene (EX-PS)	68	94	138	39	46	44	49	63	71	72	12.70	1.41
												7
1. Styrene Butadiene Rubber (SBR)	14	14	14	15	13	17	13	19	12	9	-36.84	-25.00
2. Poly Butadiene Rubber (PBR)	74	74	74	67	72	74	72	73	76	79	4.11	3.95

3. Nitrile Butadiene Rubber (NBR)	25	25	25	9	10	13	11	13	6	0	-53.85	-100.00
Total Synthetic Rubber	**113**	**113**	**113**	**91**	**95**	**104**	**96**	**105**	**94**	**88**	**-10.48**	**-6.38**
IV : SYNTHETIC DETERGENT INTERMEDIATES												
1. Linear Alkyl Benzene (LAB)	497	497	532	468	460	471	434	464	475	454	2.37	-4.42
2. Ethylene Oxide (EO)	124	124	124	88	96	114	117	154	164	169	6.49	3.05
Total Synth. Detergent Intermediates	**621**	**621**	**656**	**556**	**556**	**585**	**551**	**618**	**639**	**623**	**3.40**	**-2.50**
V : PERFORMANCE PLASTICS												
1. ABS Resin	86	107	128	76	74	78	68	84	90	89	7.14	-1.11
2. Nylon-6 & Nylon 66	16	16	16	13	14	14	12	13	17	14	30.77	-17.65
3. Polymethyl Methacrylate (PMMA)	4	4	4	2	3	3	2	3	3	3	0.00	0.00
4. Styrene Acrylonitrile (SAN)	96	96	96	36	41	61	58	72	82	77	13.89	-6.10
Total Performance Plastics	202	223	244	127	132	156	140	172	192	183	11.63	-4.69
TOTAL BASIC MAJOR PETROCHEMICALS												
(I+II+III+IV+V)	**10036**	**11376**	**11676**	**7449**	**8217**	**8672**	**8191**	**8287**	**9008**	**9802**	**721.00**	**794.00**
B : INTERMEDIATES												
I : FIBRE INTERMEDIATES												
1. Acrylonitrile (ACN)	41	41	41	33	37	39	30	39	38	38	-2.56	0.00
2. Caprolactum	120	120	120	117	121	86	84	123	123	118	0.00	-4.07
3. Mono Ethylene Glycol (MEG)	740	1040	1040	881	872	923	783	738	746	997	1.08	33.65
4. Purified Terephthalic Acid (PTA)	3873	3753	3753	1734	2379	2059	2154	2985	3191	3308	6.90	3.67
Total Fibre Intermediates	**4774**	**4954**	**4954**	**2765**	**3409**	**3107**	**3051**	**3885**	**4098**	**4461**	**5.48**	**8.86**
II : BUILDING BLOCKS												
OLEFINS												
1. Ethylene	2983	3783	3783	2719	2683	2810	2639	2515	2665	3320	5.96	24.58
2. Propylene	2381	2886	2886	1745	2089	2157	1887	1859	1930	2528	3.82	30.98
3. Butadiene	295	295	295	207	223	244	214	205	242	250	18.05	3.31
Total Ole®ns	**5659**	**6964**	**6964**	**4671**	**4995**	**5211**	**4740**	**4579**	**4837**	**6098**	**5.63**	**26.07**
AROMATICS												
1. Benzene	1149	1279	1282	686	886	867	880	823	945	1002	14.82	6.03
2. Toluene	261	258	258	159	147	142	139	137	128	132	-6.57	3.13
3. Mixed Xylene	165	165	165	56	58	74	78	55	44	51	-20.00	15.91
4. Ortho-xylene	420	420	420	242	431	269	224	358	400	390	11.73	-2.50
5. Paraxylene	2218	2218	2218	1394	1925	2137	2155	2223	2137	2394	-3.87	12.03
Total Aromatics	**4213**	**4340**	**4343**	**2537**	**3447**	**3489**	**3476**	**3596**	**3654**	**3969**	**1.61**	**8.62**

C : Other Petro-based Chemicals												
1. Butanol	**	**	**	15	14	14	11	8	18	22	125.00	22.22
2. C4-Raf!nate	225	262	262	105	76	77	55	65	71	209	9.23	194.37
3. Di-Ethylene Glycol	50	71	72	58	60	68	58	69	73	99	5.80	35.62
4. Diacetone Alcohol	9	9	9	9	9	9	8	9	4	5	-55.56	25.00
5. Ethylene Dichloride (By Product)	593	593	593	263	220	267	277	445	454	435	2.02	-4.19
6. 2-Ethyl Hexanol**	25	25	25	24	24	27	23	16	29	49	81.25	68.97
7. Epichlorohydrine	10	10	10	11	10	9	8	7	8	9	14.29	12.50
8. Iso-Butanol	**	**	**	4	4	3	3	3	3	2	0.00	-33.33
9. Isopropanol (IPA)	70	70	70	28	21	49	51	62	67	71	8.06	5.97
10. Methyl Methacrylate (MMA)	4	4	4	4	4	4	3	5	5	4	0.00	-20.00
11. Phthalic Anhydride (PAN)	284	284	309	192	223	244	207	232	253	250	9.05	-1.19
12. Propylene Oxide (PO)	27	27	27	27	28	28	29	32	32	35	0.00	9.38
13. Propylene Glycol (PG)	15	15	15	16	16	17	16	19	17	19	-10.53	11.76
14. Polyvinyl Acetate Resin	0	0	0	12	10	11	10	4	2	0	-50.00	-100.00
15. Vinyl Acetate Monomer (VAM)	0	0	0	26	24	23	24	0	0	0	0.00	0.00
16. Vinyl Chloride Monomer (VCM) (By Product)	541	541	541	308	280	289	303	674	672	689	-0.30	2.53

($) : Includes capacity of all the units producing PFY, NFY, NIY and PPFY under broadbanding 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 utilisation can not be worked out.

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

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

Annexure - IV

ORGANISATIONAL CHART OF DEPARTMENT OF CHEMICALS & PETROCHEMICALS