

CHAPTER – 3

AN OVERVIEW OF INDIAN CHEMICAL INDUSTRY AND COMPANIES PROFILE

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3.1 A BROADER OUTLOOK ON INDIAN CHEMICAL INDUSTRY:

3.1.1 BACKGROUND :

To the industrial as well as economic development of the country, there is a noticeable contribution of the Indian Chemical Industry which is considered as the oldest industry of the country in which they are found. Some industries are full of energy and enthusiasm downstream industries. There is an extreme and urgent need to help these industries in producing world-class and highly qualitative products through intensification process. The object behind this is to establish a strong and healthy presence of the Indian Chemical Industry in the International market. To attract the qualitative human resources from inside and outside the country, there is a need to present India as a motivator at all parts of the world in Research and Development stage.

3.1.2 PRESENT SCENARIO :

In the coming years, the Chemical Industry of India is complete and ready for an extensive growth and development. The population of India and China are increasing almost at the same rate. In India, out of its total population, almost third part is of middle class group. The total income of India has increased. The consumption of chemical is also increasing very rapidly at a higher rate. The GDP of India increased by 9% in a particular year whereas the Indian Chemical Industry has growth of double-digit during the same period.

To motivate investment in the Petrochemical sector, the government of India has set a specific policies and special economic zones. Also, some domestic and powerful companies have introduced plans of ambitious expansion for the next few years.

To address a wide range of factors affecting the chemical industry, chemical conferences are organized in India. Such chemical conferences are included in the Indian Chemical Industry outlook. Such conference includes taking interest at various parts and segments of Indian Chemical Industry. It also includes finding out the opportunities of growth and challenges in each segment.

In production of chemicals, India has succeeded to achieve a progress in great amount. Beyond this, Indian chemical companies which have well organized systems and well planned functions are also going to be benefitted with a long and deep cut in tax that government collects on goods coming into country.

As Indian Chemical Industry is one of the oldest industries of the country, it is contributing a lot to the growth and development of the economy in a very unusual way. It is very difficult to believe that Indian Chemical Industry helps other industries also in providing the basic need vertices such as Natural Gas, Water, Oil, Metals, Minerals, and Air etc. By using all these vertices, a series of almost 70,000 products are produced and bring into marketplace for use.

In the present scenario, India has achieved a progress in very huge amount in the production of various products such as Organic and inorganic chemicals, Paints, Pesticides, Petrochemicals, Dyestuffs and intermediates, Fine and specialty chemicals, Toiletry product segments etc.

In addition, Indian chemical companies which have well organized systems and well planned functions are also going to be benefitted with a slash in tariffs. The companies can mark their presence not only in India but also in overseas markets by producing highly valued chemicals according to the needs of the standards of the industrial quality.

In India, with the increase in disposable income, the consumption of chemical has also increased. This has increased the GDP of India from 9% to 13%. To make the Indian Chemical Industry more progressive, successful and quickly developed, the Indian government has introduced various policies and special economic zones which focus on the petrochemical sector. Beyond this, in the coming years, some production companies are also focusing more on the expansion plans.

There is a significant impact of chemicals and chemical products on our lives. In this fast- changing world, chemicals have become a way of life in the different manners such as preparing synthetic clothes, producing consumable drugs, using thermoplastic furniture at homes and offices.

In addition to this, for agricultural and development sectors, the chemical industry plays an important role. The following other sectors are also dependent on the chemical sector for various products in a big way Engineering, Automotive, Consumer durables, Food processing etc.

The chemical industry is going on a path of high growth. It is expected that in the next few years, the Indian Chemical Industry is going to achieve a target of US\$ 100 billion by making number of efforts. The Indian Chemical Industry contributes almost 17.6% to the manufacturing sector of India. Indian chemicals have traded for the last few years. Today, Imports and Exports of Indian Chemical Industry are about US\$ 7.92 billion and US\$ 5.95 billion respectively. Due to the liberalization and globalization policy, Indian Chemical Industry is moving towards a major expansion. At present, the Indian Chemical Industry is producing wide range of products which include Fine and Specialty chemicals, Dyes and Pigments, Drugs and Pharmaceuticals, Pesticides, Agrochemicals and Fertilizers, Plastics, Petrochemicals etc.

In spite of all this, for giving the presence in International markets, Indian Chemical Industry has to make more efforts.

3.1.3 AIMS AND OBJECTIVES :

- To estimate about government policy and to react to it.
- To give better services to its members in the form of effective information distribution system, safety measures, issues relating to health, issues relating to environment etc.
- To monitor the trend of International Chemical Industry.
- To maintain and extend the International co-operation in the form of exchange of information.
- To motivate chemical export activities by using a lot of energy.
- To help in making sure that trained workers are available.
- To help Research and Development culture in development by adopting quality standard and absorption of technology.

- To work effectively and efficiently for representing all the sectors of chemical industry.
- To maintain and to increase healthy relationship between government authorities and members of association.
- To improve the prestige of the Indian Chemical Industry.
- To motivate the measures of energy saving and protecting the environment in the industry.

3.1.4 FAST-FACTS ON INDIAN CHEMICAL INDUSTRY :

- Divided in small pieces and parts.
- Working to a specific area, rather than general one.
- The industry is on the fast track due to increased level of per capita consumption.
- Due to the various factors such as high cost of capital, high power consumption, import duties etc., there is less competition in the International markets.
- Very little focus on the Research and Development.
- Existence of number of multinational companies.
- Presence of big players in bulk chemicals.
- In fine and specialty chemicals, small and big players are present.

3.1.5 MAJOR SEGMENTS OF CHEMICAL INDUSTRY :

Following major segments are included in the Indian Chemical Industry:

- Petrochemicals
- Inorganic Chemicals
- Organic Chemicals
- Fine and specialties
- Bulk Drugs
- Agrochemicals
- Paints and Dyes

❖ **Petrochemicals** :

Out of the various categories of the chemicals, Petrochemicals is the biggest one. A petrochemical is considered as one of the fastest growing sectors of the industry. It includes production of various products such as:

- Basic chemicals like Ethylene, Propylene, Xylene, Benzene etc.
- Intermediates like MEG, LAB, PAN etc.
- Synthetic fibers like Nylon, PFY, PSF etc.
- Polymers like LDPE/HDPE, PVC, PET, Polymers etc.
- Synthetic rubber like PBR, SBR etc.
- The key companies are Reliance, NOCIL, IPCL, GAIL, Haldia etc.

❖ **Inorganic Chemicals** :

The inorganic chemicals focus on the production of Chlorine, Sulphuric Acid, Caustic etc. In the production of glass, soap, detergents, fertilizer, alkalis etc., the inorganic chemicals are generally used. At present, inorganic chemical is doing a business of almost US\$2.5 billion. In spite of this, at the time of fulfilling the needs of the local markets, the inorganic chemical industry is facing a tough competition from International markets.

❖ **Organic Chemicals** :

Organic chemical industry includes a wide range of chemicals. In western India, number of companies which manufactures organic chemicals is found. At present, organic chemicals is doing a business of almost US\$ 1 billion.

❖ **Fine Specialties** :

The segment of fine specialties is highly separated into small pieces or parts. It includes large number of big players. These players work on the concept of “high price and low quantity”. This sector is considered as one of the fastest growing sectors in the market. At present, this sector is doing a business of around US\$ 80 million per year. Large numbers of big and small Indian companies are included in this sector. Fine specialties include Textile, paper, rubber, polyester, gas, leather, detergent, paints, oil etc.

❖ **Bulk Drugs :**

In India and outside India, Bulk Drugs have captured a large market. Production of Bulk Drug is focused in the areas of various cities like Bombay, Hyderabad, Chandigarh, Ankleshwar, Madras etc. There are total 475 drugs have been used. Out of this, 425 drugs are obtained from the local market. In the organized sector, there are about 350 units whereas in the unorganized sector there are many more units.

India has very healthy base not just on the products, but also on the reverse engineering, patents on processes and molecular chemistry. In Bulk Drugs category major Indian companies like Ranbaxy, Cheminor, Cipla, IPCA, Aurobindo, Cadila, Dr. Reddy's, Shasun, Lupin, Sun, Kopran, Wockhardt etc. are included. Most of the Bulk Drug companies are Indian companies. But, its formulations are done by the Multinational companies.

❖ **Agrochemicals:**

In India, much importance is given to the agriculture and so it is considered as an agricultural dominated country. Although India is a major user of Agrochemicals, it is consuming only 5% of the world average. The Agrochemical segment is increasing at 10% per year. Its revenue is worth US\$ 800 million. Use of Agrochemicals is dependent on the type of crop and region. More than 60% of pesticides is consumed in the various cash crops such as tobacco, sugarcane etc. Insecticides, Herbicides, Rodenticides, Fungicides, Weedicides, and Fumigants etc. are included in the exports of Agrochemicals.

❖ **Paint and Dyes :**

Due to the reservation policy related to pollution, developed countries have put ban on the production of dyes. So, demand of the Indian dyes is increasing in the world. In Paints, Textiles, Inks and Polymers, dyes are used. The demand of Paint and Dyes is increasing at the rate of 12%. At present, the demand of Paint and Dyes is almost US\$ 1 billion. Beyond this, the segment of Paint and Dyes is highly separated into small pieces or parts. 50% of the market share is covered by about 25 large and medium companies whereas another 50% market share is covered by other 2000 organized companies. The per capita consumption in developed countries is about 15 kgs. whereas it is only 400 gms. in India which is very low.

3.1.6 OVERSEAS TRADE AND ROAD AHEAD :

❖ Overseas Trade :

- India was importing chemicals in the early 1990s. But, due to the establishment of the Petrochemical Industries like Reliance etc., the exports of India have also increased. Exports of various products like bulk drugs, pesticides, intermediates, pharma, dyes etc have increased. In the Indian market, the overall performance of Indian Chemical Industry has been very good. But, it has to improve its performance in a significant way in the International markets. There is a negative effect of the recession and crises in the Middle East on the production and export sector of the chemical industry.
- The International Council of Chemical Associations (ICCA) is holding 80% of the chemical producers of the world. It has declared its support to the formal discussion of the more than two different groups of nations in the World Trade Organization.
- ICCA is worry about the various problems such as Management of anti-dumping practices, removal of chemical taxes, to destroy the TRIPs agreement, simplifying the process of custom etc.

India would get profit due to the management of anti-dumping practices but the tax-free world would lead to a tough competition.

❖ Road Ahead :

- Some factors are considered as very crucial and should be taken into consideration. These factors include Latest technology, connection between backward and forward areas, capacity of deep research, developing Indian capacity to reduce the dependency on imports etc.

Issues related to safety, health and protection of environment have become very important now-a-days in almost all the industries including Indian Chemical Industry also. The Indian Chemical Industry is focusing more on the war-footing.

3.1.7 CHEMICAL SECTOR PRODUCTION TRENDS :

- In India, chemical industry is one of the oldest industries. For industrial as well as economic growth of the country, chemical industry plays a significant role. The

Indian Chemical Industry stands at 6th rank in the world and 3rd rank in Asia. For the production of various products such as paper textile, leather, paints and varnishes etc., chemical industry provides enough chemical. These products are important in almost all the tasks of life. In India, for the industrial and agricultural development, the Indian Chemical Industry works with main strength.

- Small as well as large scale units are included in the Indian Chemical Industry. In the mid-eighties, some special benefits were allowed to the small-scale sector. This encouraged in establishing lots of units in the Small Scale Industries (SSI) sector. At present, Indian Chemical Industry is at the stage of major consolidation and restructuring. It is focusing on the product development, building a good brand and protection of environment. Besides this, it is also taking care of customer satisfaction. India is having supply of basic raw materials in large quantity. In spite of this, to face international competition and to increase its share in exports, India has to adopt latest technologies and also establish capabilities of marketing.
- Till the early nineties, the Indian Chemical Industry was underlying very few large scales Research and Development to create and to understand the ideas properly. So, the economy of India was considered as protected economy. In January 2005, an act called “The Product Patent Regime” came into effect. According to this act, the units should have facilities of Research and Development establishments. Beyond this, the units have to be capable for finding new ideas. Due to this, smallest and newer chemical unit can be easily existed and developed. With the increase in number of scientific organizations, highly trained scientific manpower also increases. As a result, the strength of the country would also increase.
- India is also producing large number of fine and specialty chemicals which are of specific use. It is used for various purposes such as Food additives, Polymer additives, Pigments, Rubber industry, Anti-oxidants etc.
- 100% Foreign Direct Investment (FDI) is granted in the Indian Chemical sector. Permission is not given for the production of various chemical products which includes organic chemicals, inorganic chemicals, dyestuffs, pesticides etc. The businessmen are required to submit only IEM with the Industrial Policy and

Promotion Department. Production of some items is dangerous to the people's health and safety. So, such items are included under the compulsory licensing. Such items include Hydrocyanic and its derivatives, Isocyanates and de-isocyanates of hydrocarbons, Phosgene and its derivatives.

- Another important segment for the Indian Chemical Industry is the Dyestuff sector. It is connected with the number of sectors like Textiles, Paper, Printing inks, Leather, Plastics, and Foodstuffs etc.

Almost 70% of the production of dyestuffs is consumed by the textile industry which is considered as largest consuming industry. From the 1950s, textile industry is working as importers and distributors. It is now growing as very healthy industry. It is earning a major part of the foreign exchange. India is growing as an exporter of intermediates and dyestuffs, especially for acid, reactive, direct dyes and vat. India is producing almost 7% of the total production of dyestuffs in the world.

- During the 1960s and 1970s, chemical fertilizers as well as pesticides played an important part in the "Green Revolutions". During the last five years, exports of agrochemicals are growing at an impressive rate in India. India is exporting pesticides in the markets of various countries such as USA, France, U.K., Spain, Malaysia, Netherlands, South Africa, Belgium, Singapore, Bangladesh etc.

India is considered as the producer of one of the most dynamic generic pesticide in the world. 125 producers (including 10 Multi National Companies) from large and medium scale industries produce more than 60 technical grade pesticides. Over 500 formulators of pesticide are spread over the country.

- Under the chairmanship of Shri Arun Maaira, DCPC established a Task Force on chemicals. It was set up for various objectives such as:
 - To study the different aspects of chemical industry.
 - To study the major policy issues.
 - To make recommendations for increasing investment.
 - To meet the overseas competition.
 - To maintain and to increase the growth of the chemical sector as well as Indian economy.

Persons from different Ministries, departments and industry associations were included as a member in the Task Force.

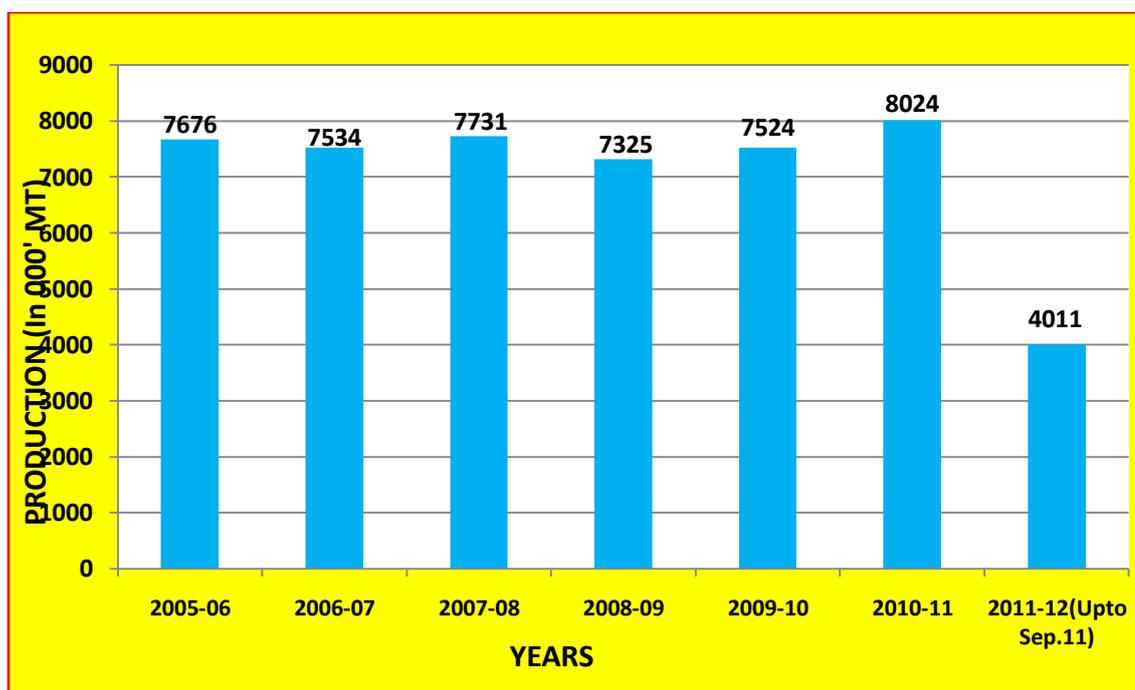
- Two meetings were arranged by the Task Force on 18-10-2010 and 8-2-2011. For the growth and development of the chemical sector during the 12th Five Year Plan, Planning Commission formed a Working Group on chemicals and petrochemicals to prepare the general plan and road map. There were many similarities in the terms and conditions of the Working Group and Task Force. So, the decision was taken that Task Force should be merged with the Working Group. With the help of Task Force and under the chairmanship of secretary, the Working Group has submitted a strategic plan for the growth of the chemical sector to the Planning Commission.
- The actual data relating to the production of major chemicals and its trend from the year 2005-06 to 2010-11 and up to September 2011-12 is shown in the following Table-3.1 and Chart 3.1 respectively.

**TABLE- 3.1: PRODUCTION OF SELECTED
MAJOR CHEMICALS**

Sector	Production							Growth (%)	
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (up to sept 11)	2010-11 /2009-10	Carg. 10-11/ 6 May
Alkali Chemicals	5475	5269	5443	5442	5602	5981	2970	6.77	1.78
Inorganic Chemicals	544	602	609	512	518	572	310	10.42	1.01
Organic Chemicals	1545	1545	1552	1254	1280	1342	672	4.84	-2.78
Pesticides (Tech.)	82	85	83	85	82	82	37	0	0
Dyes & Dyestuffs	30	33	44	32	42	47	22	11.9	9.39
Total Major Chemicals	7676	7534	7731	7325	7524	8024	4011	6.65	0.89

CARG: Compound Annual rate of Growth

CHART-3.1: TREND OF PRODUCTION IN MAJOR CHEMICALS



3.1.8 PETROCHEMICAL SECTOR PRODUCTION TRENDS :

- Synthetic fibers, elastomers, performance plastics, polymers, synthetic detergents intermediate etc. are included in the petrochemical industry. Natural gas is the main source of feedstock. In the same way, naphtha is the main fuel for petrochemicals. Petrochemical products affect even the small parts of the items of daily use. These items include Housing, Furniture, Household items, Agriculture, Irrigation, Clothing, Construction, Automobiles, Toys, Horticultures, Packing to medical appliances etc.
- There are complexes in the country because of three naphtha based and an equal number of gas based cracker. Their annual ethylene capacity is of 2.9 million MT. Naphtha cracker of Indian Oil Corporation started commercial manufacture with an annual ethylene capacity of 0.85 million MT at Panipat during the year 2011-12. Beyond this, there are four aromatic complexes also which are having a combined Xylene capacity of 2.9 million MT.
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Naphtha cracker of Indian Oil Corporation started commercial manufacture with an annual ethylene capacity of 0.85 million MT at Panipat during the year 2011-12. Beyond this, there are four aromatic complexes also which are having a combined Xylene capacity of 2.9 million MT.

- The actual data relating to the production of major petrochemicals and its trend from the year 2005-06 to 2010-11 and up to September 2011-12 is shown in the following Table-3.2 and Chart-3.2 respectively.

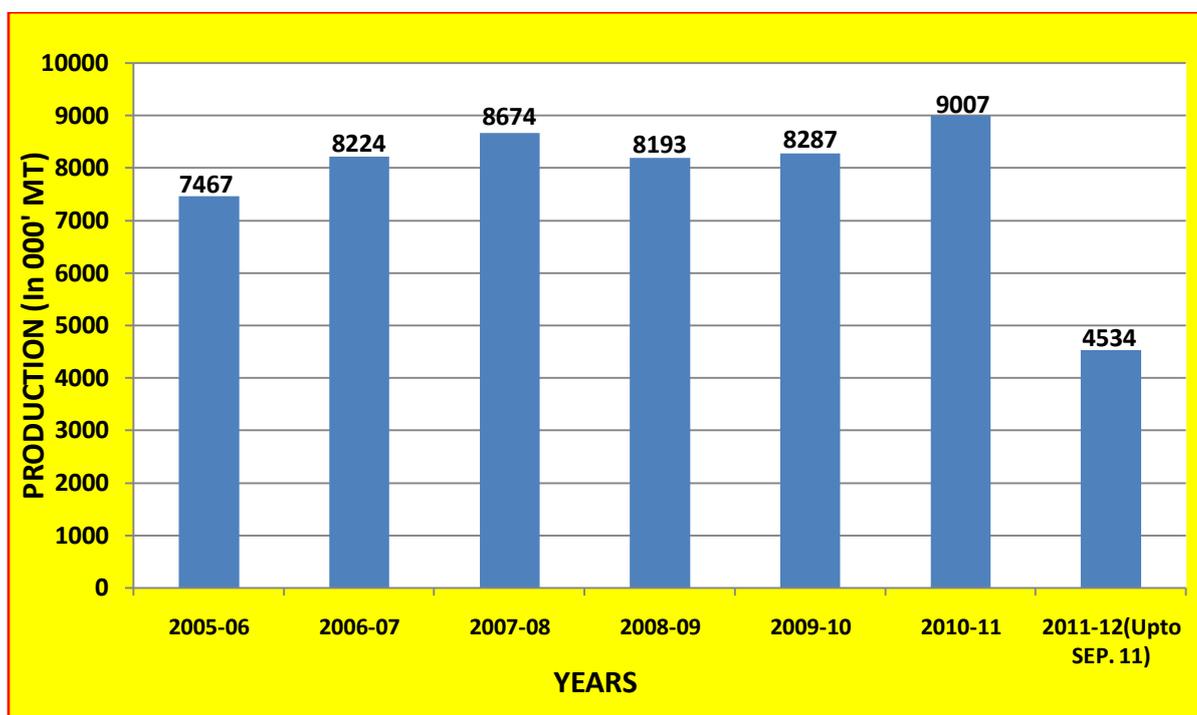
TABLE-3.2: PRODUCTION OF SELECTED MAJOR PETROCHEMICALS

(Figures in 000' MT)

Sub-group	Production							Growth (%)	
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (up to sept 11)	2010-11/2009-10	Carg/ 10-11/ 05 -06
Synthetic Fibers	1906	2250	2524	2343	2601	2791	1323	7.3	7.93
Polymers	4768	5183	5304	5060	4791	5292	2780	10.46	2.11
Elastomers (S. Rubber)	110	101	106	96	106	95	44	-10.38	-2.89
Synth. Detergent Intermediates	556	556	585	552	618	638	303	3.24	2.79
Performance Plastics	127	133	157	141	172	191	84	11.05	8.5
Total Major Petro-Chemicals	7467	8224	8674	8193	8287	9007	4534	8.69	3.82

CARG: Compound Annual rate of Growth

CHART-3.2: TREND OF PRODUCTION IN MAJOR PETRO-CHEMICALS



From Table-3.2, it is seen that out of the total production of major petrochemicals, Polymers consumes more than 60%. The production of petrochemicals increased at the rate of 3.82% per year over 2005-06 till 2010-11. The Indian Chemical Industry was also affected by the global recession and due to this, the growth rate declined to 3.82% since 2005-06 during the year 2011-12. It was expected that production of petrochemicals will increase at the end of 2011-12.

3.1.9 INTERNATIONAL TRADE :

Trends in Exports and Imports of Chemicals and Petrochemicals from the year 2005-06 to 2011-12 (up to December 2011) are indicated in Table 3.3 and Charts-3.3 and 3.4.

**TABLE -3.3: EXPORT AND IMPORT OF CHEMICALS
AND PETRO-CHEMICALS**

Items/Years	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (Up to Dec)
A: Total National Exports	456418	571779	655864	840755	845534	781178
Of Which:						
Chemicals	33462	39351	43482	53738	54948	51425
Petrochemicals	17268	21801	22199	24226	29272	25908
Total Chemicals & Petrochemicals	50730	61152	65681	77964	84220	77333
Share of Total Chem. & Petro Chemical in Total National Export (%)	11.11	10.7	10.01	9.27	9.96	6.58
B: Total National Imports	660409	840506	1012312	1374436	1363736	1128165
Of Which:						
Chemicals	40492	47914	54422	74857	100834	67458
Petrochemicals	14141	16339	19577	24020	30221	29787
Total Chemicals & Petrochemicals	54633	64253	73999	98877	131055	97245
Share of Total Chem. & Petro Chemical in Total National Export (%)	8.27	7.64	7.31	7.19	9.61	5.98

CHART-3.3: TREND IN EXPORT OF CHEMICALS & PETRO-CHEMICALS

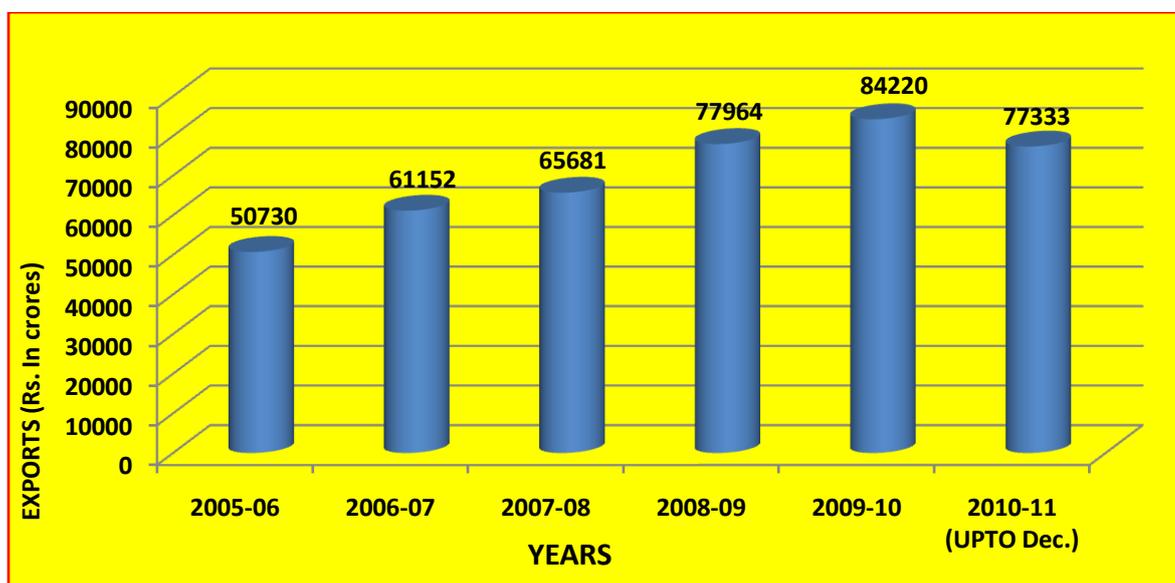
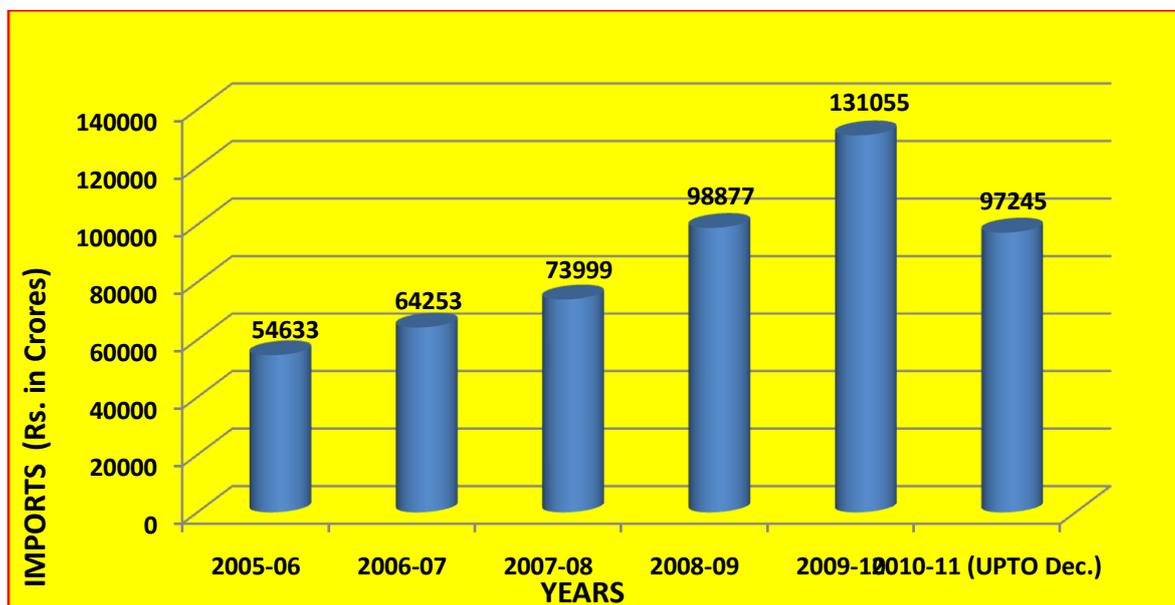


CHART-3.4: TREND IN IMPORT OF CHEMICALS & PETRO-CHEMICALS



From Table-3.3, it can be seen that during the period from 2005-06 to 2009-10, the share of Imports of the chemicals and petrochemicals in the total National Imports increased slightly from 8.27% to 9.61%. But, on the other hand, share of Exports reduced from 11.115% to 9.9% during the same period.

3.1.10 NATIONAL POLICY ON PETROCHEMICALS :

On 12-04-2007, the government of India sanctioned the National Policy on Petrochemicals. The main objectives of this National Policy on Petrochemicals are as under:

- (i) To increase investments in upstream and downstream sectors and also to capture a demand of polymers and downstream processing which is becoming stronger and more popular in Asia. This is to be done by various ways such as:
 - By increasing the capacity and production by making sure that raw material is available at globally competitive prices and in proper quantity.
 - By establishing qualitative infrastructure.
 - By increasing the facilities to provide value addition.
 - By increasing exports.
- (ii) To increase the demand of plastics and synthetic fibers from the present level of 4 kgs. and to increase the per capita consumption of plastics and synthetic fibers from the present level of 1.6 kgs.
- (iii) To increase the capacity of absorbing polymer and addition in the value of local downstream plastic processing industry. This is to be done by functions of research and development, modernization and by making it free from organizational limits.
- (iv) To make investment easier in the growing sectors of petrochemicals.
- (v) To achieve the growth rate in the petrochemical sector without damaging the environment. This is to be done by adopting new methods of managing plastic waste, recycling and growth of photodegradable polymers and plastics.
- (vi) To motivate Research and Development in Petrochemicals and also to motivate development in the Human Resource.

In the year 2011-12, in the 11th Five Year Plan, following three schemes are implemented by the Department of Chemicals and Petrochemicals as a part of National Policy on Petrochemicals.

(a) National Award for Technology Innovation –

The main objective of this scheme is to motivate and to approve the good qualities of innovations and researches in the petrochemical sector by giving National Awards. For this, an organization named Central Institute of Plastic Engineering Technology (CIPET) was established. The main function of it was to find out the nominations for this scheme and also to short listing these nominees.

For the year 2010-11, an amount of 60 lacs rupees was given to this organization. For the year 2010-11, seven (07) institutions or individuals were selected for the awards in seven (07) categories. This selection was done after undertaking a long and detailed process. On 28th November, 2011, the award function was held. In this function, Minister of States for Chemicals and Fertilizers, Shri Srikant Kumar Jena remained present. He gave the awards to the selected organizations and individuals for their innovations and researches in the petrochemical and polymer sectors.

During the second year of its implementation, the selection process has been changed so that maximum organizations and individuals can participate in it. For the second year i.e. 2011-12, the applications have been invited and the selection process would be completed at the end March-2012.

(b) Setting up of Centre of Excellence -

The main object of this scheme is to improve the present petrochemical technology and research in India. It also focuses on the development of new applications of polymers and plastics. For setting up the Excellence Centers, CIPET and National Chemical Laboratory, Pune were gathered in the year 2010-11. In the same year an amount of Rs, 2 crore has been given to each organization.

A panel of the experts was set up to monitor the progress under this scheme. This panel has taken the review and guidance of NCL, Pune and CIEPT, Chennai in connection with the progress of MoU signed between Department and the Institution. For the year 2011-12, the second installment of Rs. 2 crore for each organization shall be released after reviewing the progress of the scheme.

(c) **Setting up of Plastic Parks –**

The main object of this scheme is to set up the Plastic Parks and ecosystems based on the demand with best available infrastructure. It also focuses on giving the opportunity to the common facilities to help the chemical sector so that it can contribute more to the development of the economy. In the year 2010-11, before approving and finalizing the guidelines of the scheme, it was carefully observed twice by the Standing Finance Committee under the head of Secretary (C&PC).

After a detailed and careful procedure, the appointment of Programmer Manager was finalized. The Programmer Manager was appointed for implementing the scheme Ms. Grant Thornton India. For setting the primary proposals, all the state governments were requested. For setting up of Plastic Parks, some state governments have taken interest. The guidelines for the implementation of the scheme are being formulated. The approval of setting up of 2 Plastic Parks and releasing the grants in this respect were implemented during the year 2011-12.

3.2 AN OVERVIEW OF SELECTED COMPANIES :

3.2.1 TATA CHEMICALS LTD :

➤ **History :**

Tata Chemicals Ltd. (TCL) is an International company. It is interested in chemical, crop nutrition and consumer oriented products. For production of soda ash, it stands at number two in the world. As far as the available manufacturing facilities in India, US, UK, Kenya, and Netherlands, TCL is the highest geographically diversified soda ash company in the world. For getting better services to the customers all over the world, it is having effective chain supply.

➤ **Establishment :**

TCL is a part of TATA group. It was established in 1939 at Mithapur of Gujarat, India. In the production of branded iodized salt segment in India, TCL is the first one to be involved in it and also a market leader. It is leading in the production of nitrogenous and phosphatic fertilizers in India.

The company has expanded its functions in the service sector also. It remains in touch to the public by contributing to the various sectors such as Animal nutrition,

Consumer products, Metals, Soaps and detergents, Agriculture, Construction, Glass, Pharmaceuticals, Textiles Industries etc.

➤ **Major Events :**

YEAR	EVENTS
2005	<ul style="list-style-type: none"> • Tata Chemicals Ltd. has started the policy of Globalization. • It purchased a 50:50 partnership in Indo Maroc Phosphore SA, including Chambal Fertilizers and global phosphate major OCP of Morocco.
2006	<ul style="list-style-type: none"> • It purchased the UK based Brunner Mond Group and its subsidiary, the Magadi Soda company in Kenya.
2007	<ul style="list-style-type: none"> • It started the business of fruits and vegetables distribution. For this, it came into joint venture of 50:50 with total produce of Ireland by establishing Khet-se Agri produce in India.
2008	<ul style="list-style-type: none"> • TCL purchased US-based General Chemical Industrial products, which was one of the largest soda ash producers in the US. By purchasing this, the soda ash production capacity of the TCL stands at around 5.5 million metric tones per annum in the world.

➤ **Innovation :**

To develop the strength in the new businesses and maintainable technologies, TCL is planning to expand its specialties in chemicals and agro-businesses including its research capacities. For the development of world-class Research and Development capacity in nanotechnology and biotechnology, it established the TCL Innovation Centre in the year 2004. TCL is also working for giving significant presence in the bio-fuels sector. The TCL Innovation Centre is also functioning on the technologies that can reduce the effects of climate change through “green chemistry” and offering various products. It will make a difference like absorption of carbon, treatment of fuel gas and nano glass-coatings for keeping it warm.

➤ **Sustainable Chemistry :**

TCL is also fulfilling the standards of business practices and corporate governance. All the activities of TCL follow the principle of not damaging the environment. For clear support to the various issues of safety, health and environment, the TCL is considered as the responsibility taking and an international unit of the chemical industry. The highest British safety council 5-star ratings have been won by its plants of Mithapur and Babrala.

To solve the problems of crops and to increase the yields, Tata Chemicals Ltd. is working directly with the farmers of India. It has established a network of Tata Kisan Sansars (Farmer Centers) in the various states like Punjab, Jharkhand, Bihar, Uttar Pradesh, Uttaranchal, Haryana, West Bengal etc. in India. This network works in 22,000 villages covering more than 3.5 million farmers in India.

Tata Chemicals is also trying to maintain the existence of wide variety of plant and animal species living in their natural environment especially for the coastline and nesting sites of migratory birds. To save the endangered species of whale shark in Gujarat, an MoU have been signed between TCL and Wild Life Trust of India (WTI) for a project that will increase awareness and conduct a research on it.

3.2.2 PIDILITE CHEMICAL INDUSTRIES LTD :

➤ **History :**

In Indian and International markets, consumer and specialties chemical products are being supplied by the Pidilite Industries Ltd. It produces a wide range of consumer and craftsmen such as Materials and stationery, Chemicals, Fabric care products, Adhesive and sealants, Construction, Automotive chemicals etc.

It is also producing the various decorative paints which are used by painters, mechanics, students, carpenters, plumbers, households, offices etc. The company is also providing products of industrial specialty which includes industrial adhesives, organic pigment powders, leather chemicals, textile chemicals, industrial resins etc. It sells its products under the different brand names such as Fevicol, Dr. Fixit, Sargent Art, M-Seal, Cyclo, Hobby ideas etc. The company was established in 1959 with it's headquarter in Mumbai, India.

In India, Pidilite Industries Ltd. is enjoying the position of market leader in the production of adhesives and sealants, hobby colors, construction chemicals, polymer emulsions etc. Its brand name Fevicol has become very popular and is ranked among the highest trusted brands in India.

Pidilite is also purchasing and establishing various production facilities and sales offices in important cities all around the world. By this way, it is increasing its presence in the International market. In Asia, Fevicol has become the largest selling brand.

➤ **Major Events :**

YEAR	EVENTS
2005	<ul style="list-style-type: none"> • With the product ‘Chickers’, Pidilite entered into market of snack. • Pidilite Industries purchased a UCC company (Dubai based) which was producing the construction chemical brand “Probuild”. The amount for this agreement was not disclosed. • Company has converted its face value of share of Rs. 10 into share of Re.1.
2006	<ul style="list-style-type: none"> • A meeting of the pidilite was held on October 17, 2006. In this meeting, the board of directors of the company approved the resignation of Director and also a Whole Time Director, Shri Amit Roy with effect from 31st December, 2006. • Another meeting of the company was held on 2nd December, 2006. In this meeting, the board of directors of the company has appointed Shri V.S. Vasan as an Additional Director and also as Whole Time Director of the company with effect from 2nd December, 2006.
2007	<ul style="list-style-type: none"> • Under the Clause 47(a) of the Listing Agreement and under the SEBI Regulations, 1992, Pidilite Industries Ltd. appointed Mr. Maandar M. Tambe as the Company Secretary and Compliance Officer of the company in place of Mr. P.C. Patel.
2008	<ul style="list-style-type: none"> • With effect from 28th May, 2008, Shri Bharat Puri was appointed as an Additional Director of the company.

2009	<ul style="list-style-type: none"> • With effect from 26th February, 2009, Shri Debu Bhattacharya was appointed as an Additional Director of the company.
2010	<ul style="list-style-type: none"> • The company has given bonus share in the ratio of 1:1. • As the Company Secretary and Compliance Officer of the company, Ms. Savitri Parekh was appointed.
2011	<ul style="list-style-type: none"> • The company established Pidilite Inds – appointment of Foreign Currency Convertible Bonds. • Company appointed Shri Sanjeev Aga as the Additional Director of the company.
2012	<ul style="list-style-type: none"> • For the production of construction chemicals and for establishing a company in India, the Pidilite Industries Ltd. undertook a Joint Venture agreement with Hybrid Coatings. • The company has changed the name of the Registrar and Share Transfer Agent from “TSR Darashaw Limited to TSR Darashaw Private Limited”.

3.2.3 HINDUSTAN ORGANICS CHEMICALS LTD :

➤ History :

Hindustan Organic Chemicals Ltd. is an undertaking of Indian Government. The company is producing and selling chemicals. It provides the important organic chemicals which are essential for various industries that touch the everyday life of a human being. These industries include Dyes and dyes intermediates, rubber chemicals, pesticides, resins and laminates, drugs and pharmaceuticals, paints etc. Through their subsidiary, they are also producing the versatile engineering plastic polytetrafluoro-ethylene (PTFE). Hindustan Fluorocarbons Ltd. is its subsidiary company.

Phenol, Nitrobenzene, Nitrotoluenes, Nitrochlorobenzenes, Acetone, Aniline, Chlorobenzenes etc. are the main products which are manufactured by the company. Benzene, LPG, Naphtha, Toluene, Methanol, Sulfur etc. are the raw-materials which are used by the company. Most of these raw-materials come from petroleum refineries. The company is having two production units. One is at Kochi in Kerala and the other is at Rasayani, Dist. Raigad in Maharashtra. The subsidiary company of the company is situated at Hyderabad in Andhra Pradesh.

➤ **Establishment :**

Hindustan Organic Chemicals Ltd. was established by the Government of India in the year 1960. The main object of this establishment was to fulfill the needs of the basic organic chemicals without the help of other people. In the initial stage, it was started as a small unit of chemical. It has now purchased a multinational company which is having one subsidiary company and two fast growing units.

➤ **Major Events :**

YEAR	EVENTS
1971	<ul style="list-style-type: none"> • The company set up their Research and Development unit at Rasayani in Raigad District, Maharashtra state. The unit had the recognition of DSIR, Department of Science and Technology, Government of India. This unit was established for the growth by using by-products.
1994	<ul style="list-style-type: none"> • To finance the project of manufacturing Caustic Soda, Chlorosulphonic acid and hydrogen peroxide, the company made public issue. For their Caustic Soda and Chlorine project, they make the collaborations with the Aashi Chemicals of Japan. They also had the collaborations with Baxenden Chemicals, UK for their Polyurethane project.
1997	<ul style="list-style-type: none"> • The company finished their Kochi project of Hydrogen Peroxide. • To increase the existing Phenol plant capacity to 65,000 TPA and for the expansion, the company took an agreement with UOP, US. • In order to improve the capacity from 56,000 TPA to 90,000 TPA, the cumene unit of the company was also modified. • The company started production of Polyurethane system house project.
1999	<ul style="list-style-type: none"> • An ISO 9002 certificate was given by the Bureau Veritas Quality International (BVQI) to the Rasayani and Cochin units. • An ISO 14001 certificate was also issued to the Cochin unit by the BVQI.
2006-07	<ul style="list-style-type: none"> • At a cost of Rs. 65.02 lakhs; the company established Hydrogen

	<p>bottling facility plant at Rasayani unit. This was done because company was having surplus Hydrogen available from their plant and company wanted to sell it in the neighboring companies at the current market rates.</p>
2008-09	<ul style="list-style-type: none"> • Company recertified its Quality Management System of Rasayani unit in January, 2008. • A sick unit of the company was come out from the company. • Company arranged facilities for the Caustic Soda and Chlorine plant.
2009-10	<ul style="list-style-type: none"> • The company undertook an agreement with M/S GAIL. This agreement was done to obtain the natural gas from GAIL. It was fixed in the agreement that the company would convert the feed stock of Hydrogen from Naphtha to Natural Gas. It was also fixed that in place of furnace oil, natural gas would be used for boiler operation. • GMS of Kochi unit was improved to ISO 9001:2008 standards. • To economize on the operation, the company planned to start captive power plant based on natural gas.

3.2.4 MEGHMANI ORGANICS LTD :

➤ History :

By obeying the regulations of the Part-IX of the Indian Companies Act, Meghmani Organics Limited was incorporated as a joint stock company on 2nd January, 1995 with limited liability. Under section 566 of the Indian Companies Act, “Joint Stock Company” is defined as the company which is having a fixed nominal or paid-up share capital of a particular amount which is divided into shares. On incorporation of the Meghmani Organics Ltd., the company purchased the business and all present assets and liabilities of its partnership M/S Gujarat Industries. The founders of the company became shareholders of the company.

➤ **Major Events :**

YEAR	EVENTS
1996	<ul style="list-style-type: none"> • Company purchased a land at GIDC, Panoli, near Ankleshwar and expanded its pigment business.
1998	<ul style="list-style-type: none"> • At the Panoli plant, company started commercial production of pigment blue.
1999	<ul style="list-style-type: none"> • In its Vatva, Panoli and Chharodi plants, company achieved a quality assurance in purchasing, production, marketing and distribution system. The company was given award of the ISO 9001-2000 certificate.
2003	<ul style="list-style-type: none"> • For the expansion of the Agrochemical production, company purchased assets of Unit-II from Rallis India Limited. • At the Ankleshwar plant, it started commercial production of Agrochemicals.
2004	<ul style="list-style-type: none"> • Company made an offer of SDSs in Singapore and listed SDSs on the SGX-ST Main Board.
2006	<ul style="list-style-type: none"> • With an investment of Rs. 180 millions, company expanded its Cyper Methric Acid Chloride plant at the Ankleshwar unit. • Company started its commercial production at this plant.

3.2.5 CLARIANT CHEMICALS LTD :

➤ **History :**

Clariant with its affiliates is present in India for more than five decades. In 1947, it was established with the founding of Sandoz Products Limited. In 1997, it purchased Bourght Colour-Chem Limited and its subsidiaries Vanavil Dyes and Chemicals Limited engaged in the Hoechst Specialty Chemical business. In 2000, it purchased the BTP plc which led to the fourth largest company, BTP India Pvt. Ltd. into the operations of the group in India. All these four companies were combined into Colour-Chem India Limited in 2006. Accordingly, the company was renamed as Clariant Chemicals (India) Limited.

Clariant Chemicals (India) Limited is an important and safe place where production and marketing activities are undertaken. All the well established companies who played an important role in the development of textiles, paints, printing inks, leather, plastics and agrochemical industries in India are the constituents of Clariant Chemicals (India) Limited. At present, Clariant Chemicals (India) Limited is holding first position in the production of pigments, textile chemicals and leather chemicals.

➤ **Major Events :**

YEAR	EVENTS
2006	<ul style="list-style-type: none"> • It was decided that the name of the Colour-Chem Ltd. would be changed to Clariant Chemicals (India) Limited. • With effect from 5th June, 2006, the symbol of the company was also changed from “COLORCHEM” to “CLNINDIA”.
2008	<ul style="list-style-type: none"> • Company changed its name from Colour-Chem Ltd. to Clariant Chemicals (India) Limited. • At Kolshet, Thane, the company launched its new paper service centre.
2009	<ul style="list-style-type: none"> • For excellent performance in pollution control by a large scale industries in 2008-09, the Dyestuffs Manufacturers Association of India (DMAI) honored Clariant Chemicals (India) Limited. • New generation products for processing and dyeing were launched by the leather business of Clariant Chemicals (India) Limited.
2010	<ul style="list-style-type: none"> • Vasundhara Award – 2009 was won by the Roha site of the Clariant Chemicals (India) Limited. • Frost and Sullivan 2010 India Excellence Award was given to the Industrial and Consumer Specialties business of the Clariant Chemicals (India) Limited. • Company shifted its registered office to Kolshet Road P.O. Sandoz Baug, Thane – 400607 from Ravindra Annexe, 194, Churchgate Reclamation, Mumbai – 400020.
2011	<ul style="list-style-type: none"> • Two awards have been given to the Clariant Chemicals (India) Limited by the Dyestuffs Manufacturers Association of India (DMAI).

	<ul style="list-style-type: none"> (i) Excellent performance in the area of controlling pollution by a large scale unit for the year 2010-2011. (ii) Excellent performance in the area of controlling safety and Hazards by a large scale unit for the year 2010-2011. • The Industrial and Consumer Specialties Business (ICS) of the company started a new Consumer Care Laboratory at their Kolshet site in Thane, Mumbai.
2012	<ul style="list-style-type: none"> • Company started its new Crop protection Laboratory in Thane. • Company won award for National Safety Council in Maharashtra.

3.2.6 NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED :

➤ **History :**

In 1961, National Organic Chemical Industries Ltd. (NOCIL) was established to produce chemicals. It is a part of Arvind Mafatlal Group of Industries. It undertook an agreement with Royal Dutch / Shell Group and Universal Oil Products Co, US in 1964. It also undertook a project to produce 1,100 MTPA of technical organo-Phosphates. Based on technical know-how from Royal Dutch / Shell Group, it obtained regulations in 1979. The share of Royal Dutch / Shell Group was sold to Arvind Mafatlal Group in 1992. An amalgamation was done between Polyolefins Industries Ltd. and NOCIL in 1993. In 2002, company shut down its petrochemicals division.

➤ **Major Events :**

YEAR	EVENTS
2004	<ul style="list-style-type: none"> • NOCIL approved the proposal for financial restructuring. • To sell its petrochemical and plastics products, the NOCIL signed a MoU with Reliance Industries Limited.
2006	<ul style="list-style-type: none"> • The company appointed Mr. C.L Jain as an Additional Director of the company.
2007	<ul style="list-style-type: none"> • The company appointed Mr. Dhanajay Mungale as an Additional Director on the Board of Directors. • The name of the company was changed to NOCIL Ltd. from

	National Organic Chemical Industries Ltd.
2008	<ul style="list-style-type: none"> With effect from 12th April, 2008, the NOCIL has appointed Mr. V.K. Gupte as a Company Secretary of the company.

3.2.7 HIMADRI CHEMICALS LTD :

➤ **History :**

On 28th July, 1987, the company was incorporated as a private limited company as Himadri Castings Pvt. Ltd. It produces mainly the Coal Jar, Crude Napthaline, Soft Pitch and other related oils.

➤ **Major Events :**

YEAR	EVENTS
1990	<ul style="list-style-type: none"> The promoters of the company decided to establish a Coal Tar Distillation unit Liluah – Howrah, West Bengal. Company started its production with a capacity of 4,800 MTs.
1991	<ul style="list-style-type: none"> The company changed its name to Himadri Chemicals and Industries Pvt. Ltd. Later on, it was converted into a public limited company. The capacity of the plant was increased to 7,500 MTs.
1993	<ul style="list-style-type: none"> The capacity of the plant was increased to 12,000 MTs per annum. For financing the expansion of this plan, company made a public issue worth Rs. 3,00,00,000. Company started its production in September 1993.
1994	<ul style="list-style-type: none"> The company made a right issue worth Rs. 747.66 lakhs which was divided into 49,84,000 share at a premium of Rs. 5.
2004	<ul style="list-style-type: none"> Company delisted its shares from Ahmedabad Stock Exchange.
2010	<ul style="list-style-type: none"> In terms of Investment agreement with the company, Himadri Chemicals and Industries Ltd. appointed Mr. Amit Chandra as Nominee Director of Bain Capital India Investments. Company converted its face value of share to Re. 1 from Rs. 10.
2011	<ul style="list-style-type: none"> Board of Directors of the company declared a dividend of Rs. 0.10 per equity share.

2012	<ul style="list-style-type: none"> • Board of Directors of the company again declared a dividend of Rs. 0.10 per equity share. • Company appointed Mr. Pavninder Singh as an Additional Director of the company.
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3.2.8 HIKAL LTD :

➤ History :

With equity participation of Hiremaths, Kalyani Group and also of Sumitomo Corporation of Japan, Kikal was incorporated in 1988. In 1991, at Mahad, in 1998 at Taloja and in 2000 at Panoli, company started its production activities. For its existing products MCA, PC, MNCB etc., the company expanded its facilities. Company also started manufacturing metoxuron technical, a wheat herbicide. This type of product is produced for the first time in India.

To source intermediates on a toll-producing basis to be marketed through Sumitomo's worldwide marketing network, the Sumitomo Corporation purchased an equity share in the Hikal company. To finance the expansion project at Thiabendazol, the Hikal company came with public issue in 1996. The Government of India has accorded Export House status to the company.

To produce a post-harvest fungicide, the company established a new manufacturing facility near Mumbai in collaboration with Merck & Co Inc, USA. To produce Thaibendazole at Taloja, a 100% EOU unit was successfully established. Some products of the company are being sold all over the world. For maintaining high standards at the Taloja site, the company received the valuable '5 Star Safety Award' from British Safety Council, UK. From Novartis India Limited, company purchased an Agrochemical producing site at Panoli, Gujarat doing 1999-2000. The status of the company was given importance as a Trading House in place of an Export House.

The company purchased the R&D unit and also Bulk Drug production facility of Wintac Ltd. at Bangalore in Karnataka in 2001. In Bangalore unit, the company makes arrangement for a new bulk Active Pharmaceutical plant with cGMP requirements in 2004. USFDA and Australian TGA approved the Bangalore API plant

of the company. The company established its 100% EOU plant for pharmaceutical intermediates during 2004-05.

Company also established a state-of-the-art R&D facility in Pune during the year 2004-05. To produce and supply Agro biochemical intermediates, the company undertook an agreement with Bayer Cropscience AG in August 2004. The company also established a plant to produce these products in Mahad plant. To produce and market a new generation crop protection product, the company undertook an agreement with Crompton Corporation, USA in 2005.

The company undertook a Joint Venture agreement with a subsidiary company of Sinochem Corporation, China in November 2005. A strategic investment was made in Jiangsu Chemstar Industries by the company in 2005-06. The Crop Protection products' production capacity of the company stood at 4,436 MTn. In the same way, production capacity of the Pharmaceutical products stood at 180 MT.

➤ **Major Events**

YEAR	EVENTS
2004	<ul style="list-style-type: none"> • Hikal Ltd. delisted its securities from Ahmedabad Stock Exchange and Pune Stock Exchange. • Company undertook a long-term agreement with Bayer Cropscience AG. • Company purchased European Pharma Distributor Marsing & Co. • Company purchased Danish Co.
2005	<ul style="list-style-type: none"> • To produce and to supply new generation crop protection product, Hikal Ltd. undertook a long-term agreement with a USA based Crompton Protection company. • Company joined Pfizer's epilepsy drug marketing row in USA.
2006	<ul style="list-style-type: none"> • Company undertook an agreement with the Degussa, a third-largest chemical company of Germany. This agreement was done for providing pharmaceutical intermediates and active pharma ingredients (APIs). • Company shifted its registered office to 717/718 Market Chamber V,

	7 th Floor, Nariman point, Mumbai – 400021 from 6, Nawab Building, 327, Dr. D.N. Road, Fort, Mumbai – 400001.
2011	<ul style="list-style-type: none"> • Company appointed Dr. Wolfgang Welter as an Additional Director of the company. • Company organized “Hikal Cup” corporate Tennis Tournament at the Bombay Gymkhana Tennis Courts.

3.9 BASF INDIA LIMITED :

➤ **History :**

In India, BASF is having a rich and vibrant history. In 1890, BASF was first introduced in textile colors in India. The company is growing strongly over the years. At present, the company is fulfilling the current as well as future needs of the overgrowing market of India. BASF India Ltd. is producing chemicals. It has mainly six segments:

- (i) Agricultural Solution – It includes agrochemicals, agricultural solution etc.
- (ii) Performance Products - It includes tanning agents, textile chemicals, specialty chemicals, pharmaceuticals, cosmetics industries, leather chemicals, dispersion chemicals, high-value fine chemicals for food, animal feed etc.
- (iii) Plastics – It includes engineering plastics, expandable polystyrene (EPS) and polyurethanes.
- (iv) Chemicals – It includes petrochemicals, inorganic chemicals and intermediates.
- (v) Functional Solutions – It includes coatings and construction chemicals.
- (vi) Others – It includes technical and service charges.

It undertook the merger of its various groups such as BASF Construction Chemicals (India) Private Limited (BCCIPL), BASF Polyurethanes India Limited (BPIL) and BASF Coatings (India) Limited (BCIN) IN January 2011.

➤ **Major Events :**

TIME PERIOD	EVENT
1943-1996	<ul style="list-style-type: none"> • In 1943, BASF India Limited was established. Its original name was R.A. Cole Private Limited. NASF was engaged in the manufacture of Expandable Polystyrene (Thermocole). • In 1961, the company established its first production site in Asia – in Thane to meet the increasing demand for the production of plastics. • BASF India Limited was listed on the Bombay Stock Exchange (BSE) Limited in 1968. • In 1995, the company was listed on the National Stock Exchange (NSE) Limited. • In 1996, the company started its functions at its new production site in Mangalore to meet the demand of additional dyes and dispersions of various types of products.
1996-2006	<ul style="list-style-type: none"> • Between 1998 and 2000, BASF India Limited purchased the businesses of Automotive Coatings, Printing Inks and Coil Coatings and expanded the categories of its products. • In 2000, the company purchased the business of Pushpa Polymers Private Limited. With this purchase, the BASF India Limited became the first internationally active polystyrene producer with its own production in India. • In 2006, BASF India Limited purchased the chemical business of Degussa AG and established BASF Construction Chemicals (India) Private Limited. • In 2006, BASF India Limited also purchased the business of USA based Engelhard Corporation. This led to formation of BASF Catalysts India Private Limited.
2006-2011	<ul style="list-style-type: none"> • In 2008, BASF SE purchased the business of Ciba Holding AG. • In 2010, BASF India Limited purchased the businesses of

	<p>Ciba India Limited, Diamond Dye-Chem Limited and Ciba Research (India) Private Limited. This increased the portfolio of BASF India in specialty chemicals.</p> <ul style="list-style-type: none"> • In 2010, BASF SE also purchased the business of Cognis Holding GmbH Worldwide. This purchase increased the strengths of BASF India Limited in value-added products for home care and personal care ingredients. It established a strong position of the company in human nutrition and also increased its strength in pharma excipients. • In late 2010, merger of BASF Coatings (India) Private Limited, BASF Polyurethanes India Limited and BASF Construction Chemicals (India) Private Limited was done with the BASF India Limited. • On 1st January, 2011, the BASF Styrenics Private Limited has changed its name to Styrolution India Private Limited.
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3.2.10 GUJARAT ALKALIS AND CHEMICALS LTD :

➤ History :

Gujarat Alkalis and Chemicals Limited (GACL) was incorporated in 1973. It is producing various basic chemicals such as sodium cyanide, chloromethanes, caustic potash, phosphoric acid (85%), sodium ferrocyanide, hydrochloric acid, potassium carbonate, hydrogen peroxide etc.

With initial capacity of 37,425 TPA, the company started producing caustic soda. At present, in India, GACL is the single largest producer of caustic soda. It is having a production capacity of 3,56,760 TPA. The company is having two production units situated at Vadodara and Dahej in Gujarat.

GACL is exporting its products to the various countries which include USA, Australia, Far and Middle East Countries, China, Europe, Africa and South Asian countries. The GACL has planted more than 1,00,000 plants as a part of its Corporate Social Responsibility (CSR) initiative to 'Go Green'. The company has been awarded

by ISO 9001:2000, ISO 14001:1996 and IS 18001:2000 certificates which are given for quality management.

The company has established its own Research and Development Centre which is well equipped. It has received recognition from Department of Science and Technology as well as from Government of India. It has lead to develop new and safer processes and technologies, value-added products and also import substitutes.

➤ **Vision :**

To continue to be identified and recognized as a dynamic, modern and eco-friendly chemical company with enduring ethics and values.

➤ **Mission :**

- In order to meet the needs of customers and stakeholders, manage the business responsibly and sensitively.
- To make efforts for continuous improvement in performance and to measure its results precisely.
- To ensure the growth and profitability of GACL through innovations.
- To demand the highest ethical standards and also to ensure products and processes to be of the highest quality.

➤ **Awards :**

- Bureau of Energy Efficiency (BEE) and ministry of power and government of India has awarded GACL by ‘National Energy Conservation Award’ for three consecutive years since 2004.
- For developing a process for manufacturing Sodium Ferro cyanide from the Waste Stream Sodium Cyanide process, the company received acknowledgment from Chemtech Foundation.

➤ **Major Events :**

YEAR	EVENTS
1973	<ul style="list-style-type: none"> • Gujarat Industrial Investment Corporation (GIIC) incorporated Gujarat Alkalis and Chemicals Ltd. (GACL). Government of Gujarat is the major promoter of GACL. It is fully funded by Government of Gujarat.

1976	<ul style="list-style-type: none"> • With initial capacity of 37,425 MTPA of Caustic Soda, the GACL started its functions at Vadodara plant of Gujarat.
1981	<ul style="list-style-type: none"> • GACL increased its production capacity of its caustic soda plant to 70,425 MTPA.
1984	<ul style="list-style-type: none"> • The company again increased its Caustic Soda Plant capacity to 1,03,425 MTPA. • The GACL undertook a project to produce 10,560 MPPA of Chloromethane.
1985	<ul style="list-style-type: none"> • To establish a gas based power unit in Vadodara, the GACL signed an agreement with GSFC, Gujarat Electricity Board and Petrifies Co-operative. It was established under the name of Gujarat Industrial Power Company Ltd. (GIPCL). The needs of the GACL were fulfilled by GIPCL.
1989	<ul style="list-style-type: none"> • GACL increased its caustic soda capacity to 1,32,000 MTA. • The company converted its one cell house manufacturing caustic soda to environment friendly Membrane Cell Technology from Mercury Cell Technology. By this way, it avoided the use of mercury.
1991	<ul style="list-style-type: none"> • The company doubled its production capacity of Chloromethane.
1994	<ul style="list-style-type: none"> • The GACL increased its capacity of plant t 1,70,000 MTA which include potassium hydroxide facility. • The company set up a new facility for producing 16,500 MTA of potassium hydroxide Lye which was based on Membrane Cell. • The company also established a facility that converted into potassium carbonate from Caustic Potash Lye with capacity of 13,200 MTA.
1995	<ul style="list-style-type: none"> • At a new location at Dahej, Bharuch district, GACL set up a plant to produce Technical Grade Phosphoric Acid with capacity of 26,400 MTA (85%) Phosphoric Acid). • With a capacity of 1,00,000 MTA at Dahej, the company commissioned Membrane Cell based grass root Caustic – Chlorine unit.
1996	<ul style="list-style-type: none"> • With a capacity of 11,000 MTA, the company started its production of hydrogen peroxide (100%) at the Vadodara complex.