CHAPTER – IV

RESEARCH SETTING

The present research has been conducted in various Chemical, Textile, Engineering and Pharmaceutical industries in Gujarat. In this chapter a brief introduction is given regarding the various industries from where the data has been collected.

CHEMICALS AND PETROCHEMICAL INDUSTRIES:

Introduction:

Chemical Industry in India is well established and has recorded a steady growth in the overall Indian industrial scenario. The Chemical and allied industries have been amongst the faster growing segments of the Indian industry. The Indian chemical industry had a turnover of around Rs.1200 billion in 2001-2002. The chemical industry also accounts for more than 16.20% of the total Indian exports during 2001-2002. The chemical industry is highly heterogeneous encompassing many sectors like organic, inorganic, chemicals, dyestuffs, paints, pesticides, specialty chemicals, etc. Some of the prominent individual chemical industries are caustic soda, soda ash, carbon black, phenol, acetic acid, methanol and azo dyes.

The Government embarked on the path of economic liberalisation and integration of Indian economy with the global economy few years ago and this process is still continuing. The liberalised industrial policy laid the foundation or augmenting exports base and for encouraging foreign investment in the high technology area. Industrial licensing has been done away with for all industries except a few highly hazardous chemicals. Entrepreneurs are, therefore; now free to set up chemical industries by following the Industrial Entrepreneurs' Memorandum route.

The liberalisation policy of the Government also aims at providing inputs at international prices. In order to achieve this objective, a gradual process of reducing customs duties on chemical products has been initiated and the earlier policy of ensuring that indigenisation be achieved in as many sectors as possible is no longer imperative. Tariff levels have been reduced substantially after the announcement of the liberalised policy. Majority of the chemical items can now be freely imported or exported through simplified procedures.

The main thrust in the chemical sector is on modernisation so as to improve the efficiency by lowering operating costs. This is all the more so as rapid technological obsolescence is one of the prominent features of the chemical industry. With the liberalised policy of the Government it is expected that closely held technologies in certain specific areas of Hydrogen Peroxide, Citric Acid, Titanium Dioxide, MDI and TDI would now be available.

The pesticide industry has developed substantially, contributing significantly towards India's agriculture and public health. In agro chemical sector, high volume low priced pesticides are being substituted by low volume high priced pesticides. Besides, use of natural and bio-pesticides are gradually picking up in the country. The growth in dyestuff has also been noteworthy. The pesticides and the dyes & dye intermediates offer immense possibilities for exports from India in view of their international quality and competitive prices. There is tremendous scope for growth in the chemical sector. The per capita consumption of chemicals is well below the prevailing world level, e.g. in regard to sulphuric acid, which is considered as the barometer of growth of the chemical industry, the per capita consumption is only about 5 kg. per annum in India as compared to 40 kg. in industrially developed countries.

Some of the significant factors that have helped in the growth and development of chemical sector in India are (1) technically trained manpower, (2) priority to investment in the inputs for the agricultural sector resulting in investment in the basic chemicals required for the manufacture of

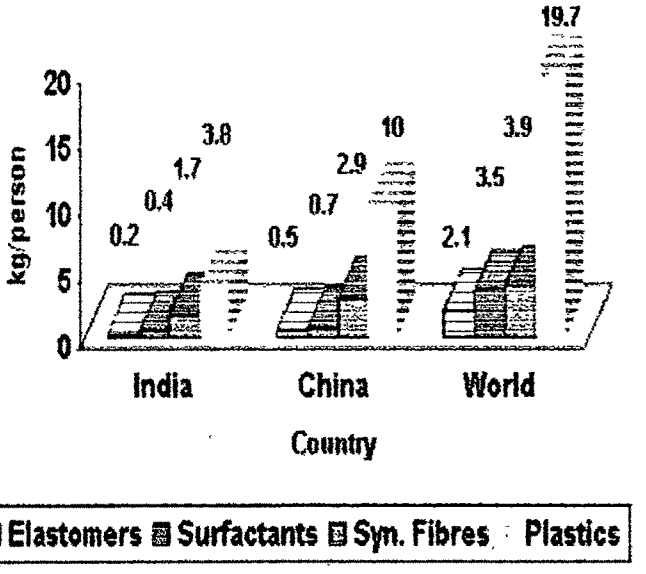
fertilizers and pesticides, (3) importance of textiles and leather industry which has encouraged production of chemicals required for dyestuffs, finishing of fabric and production of high quality leather, (4) abundance of salt along the long coast line, facilitating manufacture of caustic soda and soda ash.

Safety, health and environment protection are the key concerns for the chemicals industry. Along with modernisation to improve the operating efficiency of the plants and energy conservation, safety in operations, health of the workers engaged in the processed industry as well as environmental concerns have to be addressed. Management of toxic chemicals is also receiving increasing attention. The use of BHC has been banned w.e.f. 01.04.1997. In the manufacture of Caustic Soda, more and more units are shifting to the membrane cell technology from the conventional mercury column technology. About 75% of the total installed capacity in caustic soda manufacture is now based on the membrane cell technology, which is a much cleaner technology.

PETROCHEMICALS:

The domestic petrochemical industry has been growing at the rate of 14-15%, which is more than double the growth rate of GDP. The consumption of commodity plastics and synthetic fibres during 2001-02 was 3.8 million tonnes and 1.65 million tonnes respectively. The capacity additions which had taken place during the IX^{th} five year plan (1996-97 to 2001-02) has reduced import dependency of petrochemicals considerably and at present there is a exportable surplus in Polyethylene and Polystyrene. Despite very high growth in demand of petrochemicals, the per capita consumption is still much below the world average. The comparison of per capita consumption of major petrochemical segments is given in Figure 1.

Figure 1 Per Capita Consumption of Petrochemicals



Presently there are eight cracker complexes in operation with combined ethylene capacity of about 2.4 million tonnes per annum. In addition, there are four aromatic complexes namely, Bongaigaon Refinery and Petrochemicals Ltd., IPCL and RIL (two complexes) in operation with a combined Xylene capacity of about 1.8 million tonnes.

DOWNSTREAM PETROCHEMICAL PROCESSING SECTOR :

The downstream processing sector of Petrochemical industry is fragmented. Plastic processing industry comprises tiny, small, medium and large-scale units spread throughout the country. There are about 19,000 units, which consumed 3 million tonnes of virgin commodity plastics in 1999-2000. The industry also consumes recycled plastic, which constitutes about 30 % of total consumption. About 70-80% of the plastic processing units are in small-scale sector, which account for about 20-25 % of the total polymer in small-scale sector, which account for about 20-25 % of total consumption. The capacity utilization of the plastic processing sector is about 60%.

There are about 2000 fibre processors, of which 80% are in SSI sector. Total consumption is 1500 kilo tonnes of fibre/yarn.

There are also about 1000 Surfactant processors, majority of which (90%) are operating in SSI sector. However, SSI Sector accounts for only 10% of total consumption. The estimated consumption of surfactants is about 400 kilo tonnes.

OPPORTUNITIES IN PETROCHEMICALS:

The demand of commodity polymers in the current financial year i.e. 2002-03 is expected to exceed domestic availability. The domestic demand of polyethylene and PVC would outstrip the domestic production. In case of polypropylene demand would almost match. Only in case of polystyrene the country will experience surplus situation for some time. Demand of synthetic fibres too would exceed domestic availability. Considering that the demand of polymers is projected to grow at about 10 % in the Xth Plan and of synthetic fibres at about 6 %. There is an opportunity for investment in petrochemicals.

VISION:

1. The present domestic petrochemical industry is on the threshold of the take off stage and given a proper direction and support, it can grow in a robust manner and have effective presence in the international market. The Plastics, fibres and rubber industry could also provide driving force for the development of the downstream processing sector and providing employment and growth opportunities.

2. Keeping the aforementioned objective in view, the mission for the petrochemical industry in the next decade is identified as:

   I). Global competitiveness in the regime of reduced tariffs
   II). Environmentally responsible (following the principle of sustainable development)

III). Quality consciousness

IV). Research and Development orientation

It is envisaged that the per capita consumption of plastics and synthetic fibres would reach a level of about 6 kgs and 3 kgs respectively by 2007 (end of Xth Five year plan) and to be among the top 3 consumers in the World in respect of plastics and synthetic fibres by 2010. Increase in the level of exports to US $ 2 billion by 2005 and 4 billion in 2010.

GUJARAT STATE FERTILIZERS CORPORATION LIMITED, BARODA:

Translating GSFC's philosophy is its vast network of plants that make its possible. This infrastructure took its first step in 1967 with the setting up of 6 plants with an initial investment of Rs. 40 Crores. These six nitrogenous and phosphatic fertilizer plants started production of Ammonia, Urea, Ammonia Sulphate (AS), Diammonium Phosphate(DAP), Sulphuric Acid and Phosphoric Acid. The expansion of Ammonia and Urea production began with Phase II in 1969 and an investment of Rs. 23 Crores was made to meet the increasing demand for Nitrogenous fertilizers. Phase III began in 1974 when diversification of products occurred. Plants to manufacture caprolactam, Melamine, Nylon-6, Oleum- SO_2 and OXO.

Synthesis Gas unit and Purge Gas Recovery Unit were set up. With Phase III, GSFC became India's first & only Melamine Producer. This provided the boost for further diversification to Nylons/ Fibers/ Melamine/MEK-Oxime and industrial gases like Argon Gas & Oxo Synthesis Gas. In 1989 GSFC began further expansion and diversification (Phase IV) which saw the company increasing its self-reliance while also conserving energy needs. Three Co-generation units using LSHS and Natural Gas were set up. Also further expansion of Ammonia and Caprolactam production was initiated. Diversification into Fibers, Nylons, and acrylic were completed and a DAP plant was also set up.

This extensive diversification and expansion drive has been fuelled by GSFC's compelling need to ensure full utilization of available resources, while also maintaining its profitability and leadership status. Today, GSFC is proud to be a multi-location, multi-plant, multi-services & multi-crores company, providing much more than just fertilizers.

HUMAN RESOURCES:

The company's HR cell was set up in 1965 with the objective of raising facilities for development and enhancing technological skills.
This facet of GSFC looks into primary areas:

i) Training:

Having established training centres, these are fully equipped with modern equipment like Computerized Triangular Simulator and a comprehensive array of supplementary aids. GSFC experts operators educate the participant about various equipments. Behavioural science and skill improvement seminars are offered to all. Over the years, GSFC has imparted its technical skills to participants from leading educational and corporate organizations in India and abroad. The company also provides consultancy services to corporate bodies wishing to set up similar operations abroad.

ii) Employee Welfare:

GSFC provides an extensive and liberal range of amenities to its employees. And is perhaps the reason why is employees turnover rate is 1.5%. In Fertilizer Township- A Township created exclusively for GSFC employees the company has built over 1000 houses within the complex. Well equipped hospital and school ensure a well rounded development of GSFC`s employees children . To foster greater understanding between employees, GSFC actively encourages various social events, gathering and activities. sports, entertainment all have an important role to play. These form a vital bedrock to even more schemes that cater to the economic and professional will being of the employee.

iii) Employee Growth Programmme:

To ensure the continued progress of the company, GSFC offers strong and dynamic programmes designed to motivate all levels of employee towards greater performance. To ensure practical knowledge levels are on par with GSFC`s standards, the company has a 2 years training period for all Graduate Engineers Trainees aspiring to be officers. A well-planned training programme ensures that all employees can benefit from the latest that the world has to offer. Through these activities, GSFC empowers its employees to reach greater heights of productivity . A translation to the fact that 50% of its managers in operation and management have promoted from staff level.

ABS BAYER INDIA LTD, BARODA

BAYER ABS is an chemical industry and is named after their main product mainly "Agrylonitrial Butydine Stynie" as this are the main product of ABS so it was first of all started in 1970's but the pioneered manufacturing of ABS Bayer was started in 1978 under the trade name of "Absolac" and other sub production are as follows:-

- Absolac
- Absolan
- Makrolan-pc
- Durethan-Polymides
- Pocan-Pbt
- Baybelend-[pc+ABS]

All the products, which are finished, are generally used in Computers, Home appliances, Toys, Calculators etc. There are total three sites of Bayer ABS in Gujarat

- Nandesari
- Moxi
- SAN plant at Kalol in Panchmahal district and the main office of all the sites is at ABS Towers old padra road at BARODA.

MISSION OF BAYER ABS:

The main mission of BAYER ABS is as follows:-

1. Mission is to strive for prosperity at the service of both the company and the economy.
2. Achieving high efficiency to maintain it's standing in highly competitive environment.
3. Full-participation of owners and worker force in success of the company.
4. Consolidation and comparison of this market position through innovation research and Development as well as increasing the productivity.

There are total 274 permanent workers, 24 Apprentice and 75 contract labour.

Workers – 114

Staff – 93

Officers – 46

Manager – 21

Apprentice – 24

Contract Labour – 75

Historical Developmental Stages of ABS Bayer

1970 – ABS Plastics Limited

1976 – Manufacturing & Marketing of ABS Resin.

19981 – Distributorship of I.P.C.L.

1987 – First Expansion

1991 – Modernization of Nandesari Plant

1995 – Compounding plant at Moxi and wind mills.

1996 – Establishment of R & D Center

1997 – Joint venture with Bayer ABS

2000 – ISO9001

Bayer (India) Limited (Bayer) is a 51% subsidiary of Bayer AG, a leading name in global chemicals market. Bayer has a wide product portfolio

consisting of agrochemicals, rubber chemicals, animal health care and consumer care.

The Indian Agrochemical Industry had to go through rough weather on account of unfavourable agro-climatic conditions and poor crop returns. Inventories and receivables posed great problems aggravating the situation further. In spite of production in the agrochemical industry is essentially a conversion job, raw materials and labour are the major cost elements. Environmental concerns have resulted in high regulation for this industry. The industry is basically generic in nature with nearly 70% of the molecules are off patent. Among off patent products, wide distribution network, strong brand image and superior product quality act as entry barriers.

Globalization and GATT will gradually move the consumption pattern of Indian agrochemicals industry towards the international pattern. The phasing out of technical manufacturing in some parts of the world due to environmental reasons has forced MNCs to relocate plants in Asian and African countries. This will provide opportunities for MNC players to increase export revenues. Success of Bayer in Indian market is because of continuous support given by its parent. Strict environmental standards laid by its parent give support to the progressive nature of the management.

Bayer has already registered few new products and will be launching them in due course. Many of the developmental activities initiated in the year 1999 by Business Group - Consumer Care were brought into fruition during FY12/2000. Sales and marketing operations of Business Group - Pharmaceuticals were discontinued during the month of August 2000 and are now being handled by a new subsidiary of Bayer AG in India.

GUJARAT ALKALIS AND CHEMICALS LIMITED (GACL), BARODA:

GACL, promoted by GIIC, is the market leader in chlor-alkali industry with a 13% market share. It is the second largest domestic producer of caustic soda and also manufactures downstream products of caustic and chlorine's

Revenues are mainly derived from the sale of caustic soda. It has also diversified into manufacture of downstream products such as chlorine, chloromethane, sodium cyanide, hydrochloric acid etc. Gujarat Industrial Development Corporation (GIIC) promoted GACL in 1973. Operations began in 1976, with the manufacture of caustic soda and derivatives of chlorine. Caustic soda plant was initially set up under the mercury cell process. Over a period of four years spanning FY91 to FY94, the mercury cells were converted to membrane cells, lowering the power requirements and increasing the rated capacity. GACL's manufacturing facilities are located at Vadodara in Gujarat. Though GACL is a government company, it has a commendable track record of growth. It has been proactive in co-promoting a power generation company (GIPCL), which meets a substantial part of its power requirement. Access to low cost power has given it considerable price competitiveness in the commodity business of caustic soda.

GACL is the second largest producer of caustic soda in India with a market share of 13%. The chlor-alkali plant, which was based on the mercury cells earlier, has been converted into the energy efficient membrane cells over a period of four years ranging FY91 to FY94. The reduced power consumption coupled with the assured power supply at cheaper rates from GIPCL has enabled it to have one of the lowest power costs.

The major downstream products are chloromethane (18%), chlorine gas (10%), liquid chlorine (5%) and sodium cyanide (4%). In FY97, GACL produced 23,515 ton of chloromethane (installed capacity 21,120 ton), 150,034 ton of chlorine gas 43,910 ton of liquid chlorine (132,000 ton) and 2,045 tons of sodium cyanide (2,000 ton).

GACL has the competitive advantage of low operating costs and broad range of value added chemicals. However its margins will fluctuate with the swings in the chlor-alkali sector. GACL requires huge amounts to fund the ongoing expansions and power co-generation projects. Investors need to watch out for the timely completion of the same without cost overruns.

INDIAN PETROCHEMICALS CORPORATION LTD, BARODA:

IPCL one of the leading integrated petrochemical players in India is owned 60% by the government of India. The company manufactures petrochemical products (polymers, fibre and fibre intermediates and chemicals) using hydrocarbon feed stocks naphtha and natural gas. In FY2000 the company commissioned Phase II of the Gandhar complex that comprised 300000 tons of ethylene cracker, 160000 tons of HDPE and 100000 tons of MEG. The government has undertaken the process to offload its 25% stake in IPCL in favour of a strategic partner with management control.

The petrochemical industry requires high capital investment and intensive technology. The minimum economic size of an integrated petrochemicals plant is around 1mn tons per annum of end product, which means an investment of Rs100bn. This leads to capacity additions in spurts. The inevitable demand supply mismatches in a capital-intensive industry lead to wide price fluctuations. Historically, there have been 5-7 year cycles of price movements. The demand for petrochemical products is related to overall economic growth. Prices of feedstock and end products, substitutability of competing materials are also important factors determining the growth of this industry.

Indian petrochemical industry has been for a long time state controlled and dominated by state owned IPCL. With liberalization, large capacity additions led by Reliance transformed the industry into a situation of surplus capacity and intense competition. India's per capita consumption of petrochemicals products is still amongst the lowest in Asia and hence prospects of growth in this industry remain favourable. Polymer demand is expected to grow to grow at 13-14% per annum in the next one year. The industry is expected to witness oversupply situation in the next two years on account of commissioning and expansion of capacities in the Asian region.

IPCL is one of the leading players in the domestic petrochemicals industry and has taken various steps to face competition like regular monitoring of the product mix as per the market requirements, innovative sales policy, creating new areas of application. The company has also established a Strategic Marketing Group, which monitors market trends and formulates strategies based on market intelligence and surveillance.

IPCL, although a public sector enterprise, is professionally managed. The management has absorbed technologies from several international collaborators and has demonstrated ability to execute large complex petrochemical projects. IPCL management, unlike private sector does not have complete autonomy to take decisions, which are partly controlled by the respective Ministry and Government. In the last few years there has been considerable enhancement in the autonomy granted to the company. The company received "Excellent" rating from the government in FY2000 for achieving the goals set out in the MOU with the government of India.

RALLIS INDIA LIMITED, ANKLESHWAR:

Rallis (India) a Tata group company is an integrated agricultural input company. Agrochemicals and fertilizer distribution are the main businesses of the company constituting nearly 80% of the revenues of the company. Research and development and wide distribution network are the key strengths of the company. The performance of the company is largely dependent on the climatic conditions and the government policy on fertilizers. Rallis is planning to phase out fertilizer imports and focus on pesticides segment and exports to improve profitability in FY2000. The company has recently initiated the process of merging its subsidiaries first among themselves and thereafter eventually with the parent company to improve its financial performance.

The earnings of the domestic fertilizer industry are regulated, with the government controlling selling prices and providing subsidies to meet excess

costs. In case of urea (the popular fertilizer), Government assures a 12% post tax ROE, based on 90% normative capacity utilization. Companies, which are able to operate above 100% capacity, are thus able to earn more than normal returns. In case of other fertilizer products like DAP and other complexes, which were freed from price control, government provides ad hoc subsidy. Subsidy is also extended to imported fertilizers.

Domestic fertilizer consumption has grown at a CAGR of 12% since last 25 years. Usage pattern of N:P:K is skewed to a ratio of 8.5:3.1:1 as against the ideal 4:2:1, due to the lopsided and half hearted government policies. The industry continues to face problems such as shortage of natural gas, the key raw material and delay in receipt of subsidy payments. The future prospects of fertilizer companies are closely dependent on government policies.

Production in the agrochemical industry is essentially a conversion job. Raw materials and labor are the major cost elements. Environmental concerns have resulted in high regulation for this industry. The industry is basically generic in nature with nearly 70% of the molecules off patent. Among off patent products, wide distribution network, strong brand image and superior product quality act as entry barriers.

The world market for agrochemicals is primarily dominated by herbicides, which forms 46% share followed by insecticides at 29% and fungicide at 17%. In sharp contrast insecticides have the lion's share of 76%, followed by fungicides with 13%in the Indian agrochemicals market. Herbicides have a share of only 10% in the Indian agrochemicals market. The low consumption of herbicides in India is on account of cheap labour available for weeding operations.

The Indian agrochemicals industry is cyclical in nature with peak months being July to November and the consumption pattern skewed with regard to crop usage. Cotton crop accounts for 40-50% of the pesticide consumption

while other main crops using pesticides are rice, vegetables and wheat. The consumption pattern is also skewed in favour of certain states like Andhra Pradesh, Karnataka and Punjab. The Indian agrochemical market is highly fragmented due to presence of a large number of formulators. The impact of globalization and GATT will mean that the consumption pattern of Indian agrochemicals industry is likely to gradually move towards the international pattern. The industry is currently going through a bad phase on account of factors like low pest pressure, unfavorable climatic conditions and decrease in acreage.

Rallis has one of the strongest marketing networks spread across the country consisting of over 4000 distributors and a field force of about 1000 persons. The wide distribution network spread across the interior parts of the country has ensured the company's growth in fertilizers and pesticides segment. The exclusive arrangement like sole selling agency for Tata Chemicals urea business and distribution tie-ups with multinationals like Monsanto Chemicals indicates that company is strongly placed with regard to competition.

The strong focus on research and development, heavy expenditure incurred on modernization of plants and strategic decision to close unviable units in the past indicates the professional nature of the management. The smooth implementation of the voluntary retirement scheme at in various locations indicates the confidence of both workers and staff in the quality and transparent practices of the management.

ATUL LIMITED,VALSAD:

Nestled within the sylvan surroundings of Atul village in Gujarat, is a heronry. That this heronry is located within one of the largest chemical complexes in India, where at any given time at least 200 chemical reactions are taking place, shows how socially responsible, eco-friendly business can lead to sustainable development and stakeholder value.

Atul Ltd (formerly The Atul Products Ltd), incorporated in 1947, is as old as the Indian republic and was one of the industries set up to satisfy the young nation's desire for self-reliance. Initially, Atul manufactured a few azo dyes, providing backward integration for founder Kasturbhai Lalbhai's textile manufacturing setup. Today, the Company is a leading manufacturer and exporter of over 500 high quality products including agrochemicals, bulk drugs and bulk drug intermediates, cresols and cresol derivatives, dyes and dye intermediates, epoxy resins and epoxy hardeners, formaldehyde, speciality chemicals and wood adhesives.

Over the years, the Company has obtained and successfully assimilated best-of-class technologies from companies around the world. Atul operates through six business divisions at its Atul and Ankleshwar sites, and a global network of associates and subsidiaries including Atul Americas Inc, Atul China and Atul Europe Ltd.

Atul firmly believes that a sound business can indeed co-exist harmoniously with a safe environment and create stronger communities, thus driving the Company from a position of worldwide presence to that of leadership in chosen products and markets. Atul Ltd is a member of the Lalbhai Group, one of India's premier corporate houses. The Group has grown from one textile mill in 1908 to become an international business conglomerate today. Currently, the Group has a strong presence in textiles, chemicals, engineering, finance, white goods and real estate, diverse businesses in which the Group has consistently set high standards of performance.

The purpose of the Group is to create wealth for its stakeholders and society at large. The Group is committed to social welfare activities such as healthcare for the under-privileged, education and culture.

Textiles

- Arvind Mills Ltd
- Arvind Intex Ltd
- Arvind Polycot Ltd
- Arvind Clothing Ltd
- Arvind Cotspin Ltd
- Arvind Fashions Ltd
- Arvind Growel Ltd
- Arvind Overseas Ltd

Chemicals

- Atul Ltd.
- Amal Products Ltd.
- Anil Starch Products Ltd.
- Amol Dicalite Ltd.
- AtRo Ltd.

Engineering

- Anup Engineering Ltd

Finance

- Anagram Securities Ltd

White Goods

- Amtrex Appliances Ltd

Real Estate

- Lalbhai Realty Ltd

Building and Furniture Materials

- Gujarat Synthwood Ltd

TRANSPEK – SILOX LIMITED, BARODA:

It is the Quest for exploring synergies and deriving strength by collating the same which motivated the convergence of these two dynamic forces into a Joint venture. January 2001 saw the formalization of this strategic partnership take place between two leading manufacturers of Chemicals aimed at a harmonious co - existence with the global environment. Two pioneers, Transpek and Silox converged into a Joint Venture to leverage the "Spirit of Synergy" arising out of Specialization in Zinc and Sulphur based chemicals, similar value systems, identical orientation towards customer centric products, environment consciousness and human empowerment across all spheres of activities.

A "Matured" "New born" - Transpek-Silox derives strength from an established past, existing brand equities and a strong goodwill as it continues to harmonies with the emerging trends and changing customer requirements of today. The venture aims at consolidating the global presence through complimentary individual strengths to attain their mutual vision of growth through dedicated service to all stake holders and the society as a whole.

Transpek was set up in 1965 for manufacturing Transparent Acrylic Sheets. There lies the origin of the word **"Transpek"**. Since then the company has grown to become one of the leading manufacturers and exporters of a range of chemicals servicing the requirements of customers from a diverse range of industries - Textiles, Pharmaceuticals, Agrochemical, Paper & pulp, Tyre, Ceramics, Rubber, Polymer, etc. Since inception, Transpek has evolved with the products manufactured 'first time' in India and also pioneered to 'develop' market for the same.

Transpek is located at Vadodara, one of the leading business centers in western part of India, having a large presence of several chemical industries, including a large integrated petrochemical complex - Indian Petrochemical

Corporation Limited. National highway 8 which passes through the city is being converted into one of India's first expressway to Mumbai (Bombay), which is around 400 kms away from Vadodara. Mumbai is India's Commercial Capital and has India's largest seaport and airport. Vadodara also has an Inland Container Depot (ICD).Today, most of Transpek's products enjoy 'market leadership'.

Over a decade of presence in the international market, Transpek has earned for it a name for being a quality supplier in the international trade. With an expertise in handling Chlorine and Sulphur, Transpek indigenously developed chlorinated chemicals like Thionyl Chloride and Chloro Acetyl Chloride. Today the capacity for Thionyl Chloride at Transpek is the largest outside Europe. Transpek used to manufacture Sodium Hydro Sulfite, Safolite, Safolin, Zinc Oxide & Zinc Dust which now is with Transpek - Silox, a joint venture.

Total customer satisfaction has been our motto which goes beyond just making a sale. The customers are educated for the correct and efficient usage of the product. We offer a range in packaging, starting from 5 kg customized packing to bulk packing in ISO containers. We speak customer's language eliminating the communication barrier. The products in domestic market carry instructions/leaflets in the local/regional languages. We have extended this concept to our international customers also. Transpek is listed on the Stock Exchange and its shares are actively traded on Mumbai, Vadodara and Ahmedabad Stock Exchanges. Several Non Resident Indians as well as Foreign Institutional Investors besides Indian Institutional Investors are already Transpek's equity share holders. Transpek also has a scheme of accepting fixed deposits for meeting its normal working capital requirements. To enable us to send you the relevant forms, please do contact us.

GHARDA CHEMICALS LIMITED, PANOLI, ANKLESHWAR:

For 32 years innovation has marked the rise of Gharda Chemicals Limited (GCL) from a small unit in 1964 to one of the most successful and reputed

companies in the Agrochemical Industry. A strong and vibrant R&D program and expertise in process development has enabled the company to capitalize on superior technology. This has led to the production of vital import-substitute products and cost effective agrochemicals on a large scale and consequently to a strong, competitive national and international presence. And all this has been made possible by the vision and unswerving dedication and commitment of Dr. Keki Gharda, Founder and Chairman & Managing Director of Gharda Chemicals Limited.

Gharda Chemicals Limited, established in 1967, is a research-based company with three manufacturing units. The company has won several national awards for technical innovation in the chemical industry and has many firsts in the field of dyestuffs, pesticides, veterinary drugs and polymers. With world-class products, and 1997-98 (12 months) sales of Rs. 3100 million including exports of Rs. 1400 million, Gharda today is among the top-ranking chemical companies in India. Gharda has commissioned a world-class plant which manufactures Chlorpyrifos 99% + purity.

Both plants of Gharda (Dombivli & Lote) have received ISO 9001 certification. Gharda has successfully introduced Deltamethrin, Dicamba, Metamitron, Chlorpyrifos, Triclopyr and MPB Alcohol during 1997 - 1998.GCL is the only Indian company which has received U.S. Registration (EPA Approval) for the sale of Chlorpyrifos (Insecticide) and Dicamba (Herbicide) in the U.S.A.It is a matter of great pride that Gharda has been awarded the prestigious "Chemexcil Trishul Award" for outstanding exports among large-scale chemical manufacturers for 1995 - 96.

The Gharda story started with a handful of spirited people, 32 years ago, working with meager facilities in a hostile environment. Today, we number nearly 2000, the environment has improved considerably but the pioneering spirit of a close knit family has remained. We are a complex blending of merchant and missionary, doer and dreamer, entrepreneur and professional. Our story is dedicated to these people and the others who will follow them.

The Dombivli Plant:

The highly prolific Dombivli Plant, set up in 1971, is located on the outskirts of Mumbai and is the biggest chemical unit in the MIDC complex in Dombivli. The plant houses the Research and Development, Design, Engineering and Quality Control Departments. At present, the Dombivli factory has three main plants manufacturing Isoproturon Technical, CMAC, Cypermethrin, Alphacypermethrin and Oxyclozanide. In addition there is a formulation palnt for Isoproturon and for liquid formulations like Cyperguard 10EC, Cyperguard 25EC and Alphaguard 10EC.

The Lote Plant:

The Lote Parshuram plant in the Ratnagiri district, located 320 kms south of Mumbai, was commissioned in 1989. Located on a 22-acre plot, the Lote plant manufactures the rice-weedicide, Anilofos, the pesticide intermediate Cypermethric Acid Chloride (CMAC), and several other products like Rafoxanide, Mepiquat Chloride, Temephos, etc. A plant manufacturing Chloropyrifos was commissioned in September 1996. Lote also has plant facilities for scale up, kinetic study and manufacture of new products for market trials. The Lote unit is growing fast and has had a 100% growth in turnover since 1994. Gharda Chemicals is the first company world wide to go into the large-scale production of Anilofos, the rice weedicide.

The Panoli Plant:

From producing high quality agrochemicals in three existing manufacturing facilities, Gharda has now diversified into polymers at a new site- Panoli. The polymer plant of Gharda Chemicals Limited, located at Panoli, Gujarat, went on stream in March 1997. Built along international standards on a huge area of 75 acres, the plant manufactures specialty polymers.

Two core technologies for the manufacture of Polymers- solution and emulsion polymerization- have been developed by Gharda at this plant to

enable it to produce a series of basic polymer resins. Gharda has built a world class plant at Panoli to manufacture Polyether Sulfone (PES) under the trade name GAFONE™. The new facility will also produce Polyether ether Ketone (PEEK), under the trade name GATONE and Polysulfone under the trade name GAFONE-S.

Quality Accreditations:

Gharda Chemicals Limited is a proud achiever of ISO 9001 Certification for all its manufacturing sites including its subsidiary, Gujarat Insecticides Limited. The company has also received Good Laboratory Practices Certification and ISO 9002 accreditations from Quality Assurance Services, Australia, and National Accreditation Board for Testing Laboratories (NABL) of the Government of India for its Quality Assurance Department at its Dombivli plant. The Design and Projects department has also been certified by LRQA for ISO 9001.

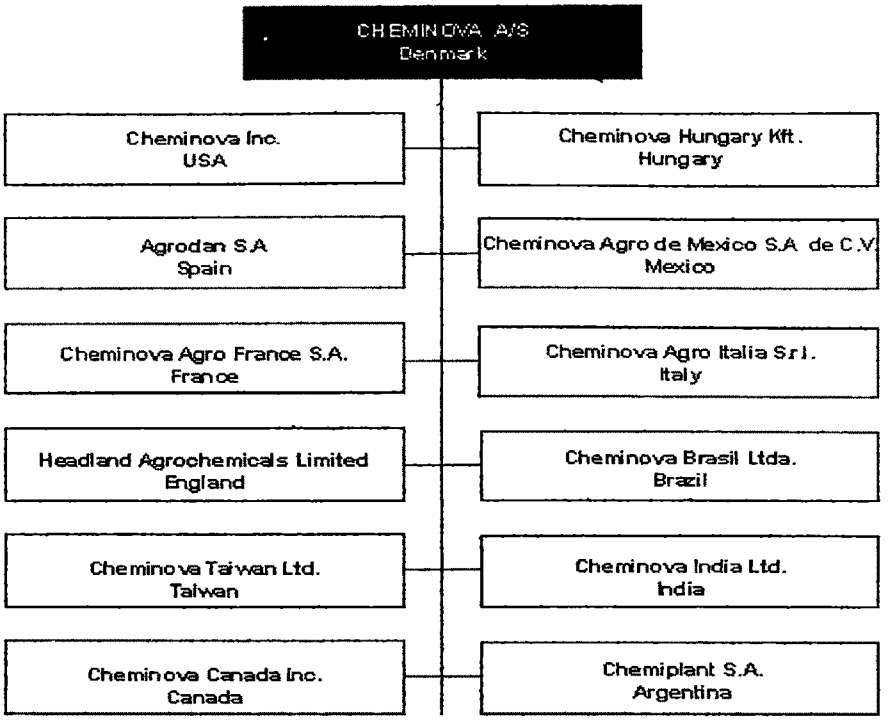
Our Goal: Our goal remains the same-

"Knowledge converted to products to wealth for the good of society."

CHEMINOVA LIMITED, PANOLI,ANKLESHWAR:

Cheminova A/S is a chemical company, its main business area being plant protection products. The company endeavours to build up a wide range of plant protection products by in-house process development, registration and the development of formulations, and to market them internationally, increasingly through its own subsidiaries and sales offices.

In addition to plant protection products, the company manufactures preservatives for the food industry and flotation agents for the mining industry. Company headquarters are situated in Harbore in the western part of Denmark. Cheminova has a number of subsidiaries that sell plant protection products on the most important markets. In addition, the company has representative offices in Russia, Ukraine, and China.



FICOM ORGANICS LIMITED, ANKLESHWAR:

Ficom Organics Limited is a leading manufacturer of Agro Chemical and pesticides. The company is located at G.I.D.C., Ankleshwar the operations began in 1990 and have a work force of approximately 500 employees. The major products are as follows:

a) Malathion
b) Chlorpyriphos
c) Quinolphos
d) Temephos Phorate
e) Ethion
f) Profenofos and Terbufos

Ficom Organics also markets alkyl phenol, including Dodecyl, Nonyl, Paraoctyl and Heptylphenols and also agricultural chemicals. The head quarters of Ficom Organics is located at Mumbai.

DRUGS AND PHARMACEUTICALS INDUSTRIES :

Industry Scenario:

The Indian pharmaceutical industry is one of the fast growing sectors of the Indian economy and has made rapid strides over the years. From being an import dependent industry in the 1950s, the industry has achieved self-sufficiency and gained global recognition as a producer of low cost high quality bulk drugs and formulations. Leading Indian companies have developed infrastructure in over 60 countries including developed markets like USA and Europe. In the last few years, several pharmaceutical companies have demonstrated that they possess the ability to engage in commercially viable research and development activities and become significant players in the international market.

The pharmaceutical industry comprises 20,053 manufacturing units and provides employment to approximately 33 lakh people. The total production in the country in 1999-2000 was Rs.19,737 crores with formulations accounting for Rs.15,960 crores and bulk drugs contributing Rs.3,777 crores. The total capital investment in the pharmaceutical industry was Rs.2,500 crores with R&D expenditure being Rs.320 crores. The country's exports stood at Rs.6,631 crores in 1999-2000, imports were Rs.3,441, a net surplus of Rs.3,190 crores. (Source : OPPI)

The leading 250 pharmaceutical companies control 70 per cent of the market with the market leader having a share of around seven per cent. Over 60 per cent of India's bulk drugs production is exported and the balance is sold locally to other formulators. With more than 85 per cent of formulation production in the country sold in the domestic market, India is largely self-sufficient in the case of formulations, even though some life saving, new generation, under patent formulations continue to be imported, especially by MNCs.

GROWTH OF PHARMACEUTICAL INDUSTRY: (Rs.Crores)

		1965-66	1980-81	1997-98	1998-99	1999-2000
Capital Investment		140	500	1840	2150	2500.00
Production :	**Formulations**	150	1200	12068	13878	15960.00
	Bulk Drugs	18	240	2623	3148	3777.00
Import		8.20	112.54	2868.00	3128.00	3441.00
Export		3.05	46.38	5353.00	5959.00	6631.00
R & D Expenditure		3	14.75	220.00	260.00	320.00

Source : OPPI AND CONFEDRATION OF INDIAN INDUSTRIES

India is one of top five manufacturers of bulk drugs in the world and is among the top 20 pharmaceutical exporters in the world. The industry manufactures almost the entire range of therapeutic products and is capable of producing raw materials for manufacturing a wide range of bulk drugs from the basic stage.

Swot Analysis of Indian Pharmaceutical Sector:

Strengths:

- Cost Competitiveness
- Well Developed Industry with Strong Manufacturing Base
- Well Established Network of Laboratories and R&D infrastructure
- Access to pool of highly trained scientists, both in India and abroad.
- Strong marketing and distribution network
- Rich Biodiversity
- Competencies in Chemistry and process development.

Weaknesses:

- Low investments in innovative R&D.
- Lack of resources to compete with MNCs for New Drug Discovery Research and to commercialize molecules on a worldwide basis.
- Lack of strong linkages between industry and academia.
- Lack of culture of innovation in the industry

- Low medical expenditure and healthcare spend in the country
- Inadequate regulatory standards
- Production of spurious and low quality drugs tarnishes the image of industry at home and abroad.

Opportunities:

- Significant export potential.
- Licensing deals with MNCs for NCEs and NDDS.
- Marketing alliances to sell MNC products in domestic market.
- Contract manufacturing arrangements with MNCs
- Potential for developing India as a centre for international clinical trials
- Niche player in global pharmaceutical R&D.

Threats:

- Product patent regime poses serious challenge to domestic industry unless it invests in research and development
- R&D efforts of Indian pharmaceutical companies hampered by lack of enabling regulatory requirement. For instance, restrictions on animal testing outdated patent office.
- Drug Price Control Order puts unrealistic ceilings on product prices and profitability and prevents pharmaceutical companies from generating investible surplus.
- Export effort hampered by procedural hurdles in India as well as non-tariff barriers imposed abroad.
- Lowering of tariff protection

PHARMACEUTICAL POLICY – 2002:

1. INTRODUCTION:

The basic objectives of Government's Policy relating to the drugs and pharmaceutical sector were enumerated in the Drug Policy of 1986. These basic objectives still remain largely valid. However, the drug and

pharmaceutical industry in the country today faces new challenges on account of liberalization of the Indian economy, the globalization of the world economy and on account of new obligations undertaken by India under the WTO Agreements. These challenges require a change in emphasis in the current pharmaceutical policy and the need for new initiatives beyond those enumerated in the Drug Policy 1986, as modified in 1994, so that policy inputs are directed more towards promoting accelerated growth of the pharmaceutical industry and towards making it more internationally competitive. The need for radically improving the policy framework for knowledge-based industry has also been acknowledged by the Government. The Prime Minister's Advisory Council on Trade and Industry has made important recommendations regarding knowledge-based industry. The pharmaceutical industry has been identified as one of the most important knowledge based industries in which India has a comparative advantage.

2. The process of liberalization set in motion in 1991, has considerably reduced the scope of industrial licensing and demolished many non-tariff barriers to imports. Important steps already taken in this regard are: -

- Industrial licensing for the manufacture of all drugs and pharmaceuticals has been abolished except for bulk drugs produced by the use of recombinant DNA technology, bulk drugs requiring in-vivo use of nucleic acids, and specific cell/tissue targeted formulations.
- Reservation of 5 drugs for manufacture by the public sector only was abolished in Feb.1999, thus opening them up for manufacture by the private sector also.
- Foreign investment through automatic route was raised from 51% to 74% in March, 2000 and the same has been raised to 100%.
- Automatic approval for Foreign Technology Agreements is being given in the case of all bulk drugs, their intermediates and formulations except those produced by the use of recombinant DNA

technology, for which the procedure prescribed by the Government would be followed.

- Drugs and pharmaceuticals manufacturing units in the public sector are being allowed to face competition including competition from imports. Wherever possible, these units are being privatized.
- Extending the facility of weighted deductions of 150% of the expenditure on in-house research and development to cover as eligible expenditure, the expenditure on filing patents, obtaining regulatory approvals and clinical trials besides R&D in biotechnology.
- Introduction of the Patents (Second Amendment) bill in the Parliament. It, inter-alia, provides for the extension in the life of a patent to 20 years.

3. The impact of the policies enunciated, from time to time, by the Government has been salutary. It has enabled the pharmaceutical industry to meet almost entirely the country's demand for formulations and substantially for bulk drugs. In the process the pharmaceutical industry in India has achieved global recognition as a low cost producer and supplier of quality bulk drugs and formulations to the world. In 1999-2000, drugs and pharmaceutical exports were Rs.6631 crores out of a total production of Rs.19,737 crores. However, two major issues have surfaced on account of globalization and implementation of our obligations under TRIPs which impact on long-term competitiveness of Indian industry. These have been addressed in the Pharmaceutical Policy-2002. A reorientation of the objectives of the current policy has also become necessary on account of these issues:-

(a) The essentiality of improving incentives for research and development in the Indian pharmaceutical industry, to enable the industry to achieve sustainable growth particularly in view of anticipated changes in the Patent Law; and

(b) The need for reducing further the rigors of price control particularly in view of the ongoing process of liberalization.

4. It is against this backdrop, that Pharmaceutical Policy-2002 is being enunciated.

OBJECTIVES

5. The main objectives of this policy are:-

(a) Ensuring abundant availability at reasonable prices within the country of good quality essential pharmaceuticals of mass consumption.

(b) Strengthening the indigenous capability for cost effective quality production and exports of pharmaceuticals by reducing barriers to trade in the pharmaceutical sector.

(c) Strengthening the system of quality control over drug and pharmaceutical production and distribution to make quality an essential attribute of the Indian pharmaceutical industry and promoting rational use of pharmaceuticals.

(d) Encouraging R&D in the pharmaceutical sector in a manner compatible with the country's needs and with particular focus on diseases endemic or relevant to India by creating an environment conducive to channelising a higher level of investment into R&D in pharmaceuticals in India.

(e) Creating an incentive framework for the pharmaceutical industry which promotes new investment into pharmaceutical industry and encourages the introduction of new technologies and new drugs.

APPROACH ADOPTED IN THE REVIEW:

6. In order to strengthen the pharmaceutical industry's research and development capabilities and to identify the support required by Indian pharmaceutical companies to undertake domestic R&D, a Committee was set up in 1999 by this Department by the name of Pharmaceutical Research and Development Committee (PRDC) under the Chairmanship of Director General of CSIR.

7. To qualify as R&D intensive company in India, the PRDC has suggested following conditions (gold standards) :-

- Invest at least 5% of its turnover per annum in R&D,
- Invest at least Rs.10 Crore per annum in innovative research including new drug development, new delivery systems etc. in India,
- Employ at least 100 research scientists in R&D in India,
- Has been granted at least 10 patents for research done in India,
- Own and operate manufacturing facilities in India.

8. The recommendations of the PRDC in so far as they relate to the Pharmaceutical Policy have been taken into account while formulating the proposals on pricing aspects.

9. The Pharmaceutical Research & Development Committee has recommended in its report, submitted inter-alia, the setting up of a Drug Development Promotion Foundation (DDPF) and a Pharmaceutical Research & Development Support Fund (PRDSF). Necessary action in this regard has been initiated.

10. As far as the question of price control is concerned, the span of control has been gradually reduced since 1979. Presently, under DPCO, 1995 there are 74 bulk drugs and their formulations under price control

covering approximately 40% of the total market. The functioning of the Drugs (Price Control) Order, 1995, has brought to light some problems in the administration of the price control mechanism for drugs and pharmaceuticals. In order to review the current drug price control mechanism, with the objective, inter-alia, of reducing the rigors of price control, where they have become counter-productive, a committee, called the Drugs Price Control Review Committee (DPCRC), under the Chairmanship of Secretary, Department of Chemicals & Petrochemicals was set up in 1999, which has given its report. The recommendations of DPCRC have been examined and taken into account while formulating the "Pharmaceutical Policy - 2002".

11. It has emerged that the domestic drugs and pharmaceuticals industry needs reorientation in order to meet the challenges and harness opportunities arising out of the liberalization of the economy and the impending advent of the product patent regime. It has been decided that the span of price control over drugs and pharmaceuticals would be reduced substantially. However, keeping in view the interest of the weaker sections of the society, it is proposed that the Government will retain the power to intervene comprehensively in cases where prices behave abnormally.

12. In view of the steps already taken and in the light of the approach indicated in the foregoing paragraphs, the decisions of the Government are detailed below :-

I. <u>Industrial Licensing</u>

Industrial licensing for all bulk drugs cleared by Drug Controller General (India), all their intermediates and formulations will be abolished, subject to stipulations laid down from time to time in the Industrial Policy, except in the cases of

(i) bulk drugs produced by the use of recombinant DNA technology,

(ii) bulk drugs requiring in-vivo use of nucleic acids as the active principles, and

(iii) specific cell/tissue targeted formulations.

II. Foreign Investment

Foreign investment up to 100% will be permitted, subject to stipulations laid down from time to time in the Industrial Policy, through the automatic route in the case of all bulk drugs cleared by Drug Controller General (India), all their intermediates and formulations, except those, referred to in para 12.I above, kept under industrial licensing.

III. Foreign Technology Agreements

Automatic approval for Foreign Technology Agreements will be available in the case of all bulk drugs cleared by Drug Controller General (India), all their intermediates and formulations, except those, referred to in para 12.I above, kept under industrial licensing for which a special procedure prescribed by the Government would be followed.

IV. Imports

Imports of drugs and pharmaceuticals will be as per EXIM policy in force. A centralized system of registration will be introduced under the Drugs and Cosmetics Act and Rules made there under. Ministry of Health and Family Welfare will enforce strict regulatory processes for import of bulk drugs and formulations.

V. ENCOURAGEMENT TO RESEARCH AND DEVELOPMENT (R&D)

(a) In principle approval to the establishment of the Pharmaceutical Research and Development Support Fund (PRDSF) under the administrative control of the Department of Science and Technology, which will also constitute a Drug Development Promotion Board (DDPB)

on the lines of the Technology Development Board to administer the utilization of the PRDSF.

b) With a view to encouraging generation of intellectual property and facilitating indigenous endeavours in pharma R&D, appropriate fiscal incentives would be provided.

VI. PRICING

(a) Span of Price Control

The guiding principle for identification of specific bulk drugs for price regulation should continue, as per DPCRC's recommendation, to be: (a) mass consumption nature of the drug and (b) absence of sufficient competition in such drugs. However, the DPCRC's recommendation regarding the new criteria for ascertaining the mass consumption nature of a bulk drug on the basis of the top selling brand is not acceptable as it gives rise to anomalies.

In this context, it may be noted that there is no tailor made data available for the purpose of ascertaining the mass consumption nature and absence of sufficient competition with reference to a particular bulk drug. There is only one source namely, "Retail Store Audit for Pharmaceutical Market in India" published by ORG-MARG, which lists out all major brands and their sale estimates on All India basis. This publication contains data for single ingredient as well as multi-ingredient formulations. However, it does not give complete description of all the ingredients of the pharmaceutical product listed therein.

Hence, there is need to obtain information in regard to composition of each brand, dosage form wise and pack wise, from various other publications / sources, viz.,

(a) Indian Pharmaceutical Guide (IPG)

(b) Current Index of Medical Specialities (CIMS),

(c) Monthly Index of Medical Specialities (MIMS),

(d) Drug Today

(e) Information provided by some manufacturers

(f) Label composition as indicated on market samples.

Though none of these sources can be said to be exhaustive and comprehensive in regard to market information, yet under the given circumstances, these are the best available. It has also been noted that the sale value of any combination formulation is not directly relatable to a single particular bulk drug forming part of the combination formulation. Combination formulations involve too many variables, viz., strength of a particular bulk drug and its proportion with respect to other bulk drugs used in the combination formulation, price difference between bulk drugs used in combination formulation, pack sizes, dosage forms etc. In view of these facts, ORG-MARG sales data for combination formulations does not yield information in regard to mass consumption nature and absence of sufficient competition with reference to a particular bulk drug. Also, it is to be borne in mind that processing of such data, which requires cross-checking with other publications and sources of information in regard to composition of each brand, dosage form-wise and pack-wise may involve instances of omission / commission.

In view of above, it would be logical to conclude that although ORG-MARG sale estimates available in regard to all single-ingredient formulations of a particular bulk drug would not yield the sale value of that bulk drug in the form of all its formulations, yet it would adequately reflect the mass consumption nature of that bulk drug in the form of single ingredient formulations, which may be used as a practical indicator for formulating the policy.

The Department through NPPA, with the help of NIPER has developed the desired database for single ingredient formulations from the retail

store audit data as published by ORG-MARG. On this basis, the Department proposes to undertake the exercise of identifying the bulk drugs of mass consumption nature and having absence of sufficient competition according to the following methodology: -

(i) The 279 items appearing in the alphabetical list of Essential Drugs in the National Essential Drug List (1996) of the Ministry of Health and Family Welfare and the 173 items, which are considered important by that Ministry from the point of view of their use in various Health Programmes, in emergency care etc., with the exclusion., as in the past, there from of sera & vaccines, blood products, combinations etc. should form the total basket out of which selection of bulk drugs be made for price regulation.

(ii) The ORG-MARG data of March 2001 would form the basis for determining the span of price control as suggested by DPCRC.

(iii) The Moving Annual Total (MAT) value for any formulator in respect of any bulk drug will be arrived at by adding the MAT values of all his single-ingredient formulations of that bulk drug, its salts, esters, stereo-isomers and derivatives, covering all the strengths, dosage forms and pack sizes listed against that formulator in all groups / categories of the ORG-MARG (March 2001).

(iv) The MAT value for all the formulators, as defined in sub-para (iii) above, in respect of a particular bulk drug will be added to arrive at the total MAT value in the retail trade.

(v) The MAT value for an individual formulator, in respect of any bulk drug, as arrived at in sub-para (iii) above, will be the basis for calculating the percentage share of that formulator in the total MAT value arrived at as in sub-para (iv) above, in respect of that bulk drug.

(vi) Bulk Drugs will be kept under price regulation if:-

(a) The total MAT value, arrived at as in sub-para (iv) above, in respect of any particular bulk drug is more than Rs.2500 lakhs (Rs.25 Crore)

and the percentage share, as defined in sub-para (v) above, of any of the formulators is 50% or more.

(b) The total MAT value, arrived at as in sub-para (iv) above, in respect of any particular bulk drug is less than Rs.2500 lakhs (Rs.25 Crore) but more than Rs.1000 lakhs (Rs.10 Crore) and the percentage share, as defined in sub-para (v) above, of any of the formulators is 90% or more.

(vii) All formulations containing a bulk drug as identified above, either individually or in combination with other bulk drugs, including those not identified for price control as bulk drug, will be under price control. The Government shall, however, retain the following over-riding power:-

In cases of drugs/formulations listed by the Ministry of Health and Family Welfare, mentioned in sub-para (i) above, and those presently under price control, having significant MAT value as per ORG-MARG but not covered under the criteria in sub-para (vi) above, as a result of this proposal, the NPPA would specially monitor intensively their price movement and consumption pattern. If any unusual movement of prices is observed or brought to the notice of the NPPA, the Authority would work out the price in accordance with the relevant provisions of the price control order.

(b) <u>Maximum Allowable Post-manufacturing Expenses (MAPE)</u>

Maximum Allowable Post-manufacturing Expenses (MAPE) will be 100% for indigenously manufactured formulations.

(c) <u>Margin for Imported Formulations</u>

For imported formulations, the margin to cover selling and distribution expenses including interest and importer's profit shall not exceed fifty percent of the landed cost.

(d) Pricing of Formulations

(i) For Scheduled formulations, prices shall be determined as per the present practice. The time frame for granting price approvals will be two months from the date of the receipt of the complete prescribed information.

(ii) The present stipulation that a manufacturer, distributor or wholesaler shall sell a formulation to a retailer, unless otherwise permitted under the provisions of Drugs (Prices Control) Order or any other order made there under, at a price equal to the retail price, as specified by an order or notified by the Government, (excluding excise duty, if any) minus sixteen percent thereof in case of Scheduled drugs, will continue.

(iii) The present provision of limiting profitability of pharmaceutical companies, as per the Third Schedule of the present Drugs (Prices Control) Order, 1995, would be done away with. However, if necessary so to do in public interest, price of any formulation including a non-Scheduled formulation would be fixed or revised by the Government.

(e) Ceiling prices

Ceiling prices may be fixed for any formulation, from time to time, and it would be obligatory for all, including small scale units or those marketing under generic name, to follow the price so fixed.

(f) Exemptions

(i) A manufacturer producing a new drug patented under the Indian Patent Act, 1970, and not produced elsewhere, if developed through indigenous R&D, would be eligible for exemption from price control in

respect of that drug for a period of 15 years from the date of the commencement of its commercial production in the country.

(ii) A manufacturer producing a drug in the country by a process developed through indigenous R&D and patented under the Indian Patent Act, 1970, would be eligible for exemption from price control in respect of that drug till the expiry of the patent from the date of the commencement of its commercial production in the country by the new patented process.

(iii) A formulation involving a new delivery system developed through indigenous R&D and patented under the Indian Patent Act, 1970, for process patent for formulation involving new delivery system would be eligible for exemption from price control in favour of the patent holder formulator from the date of the commencement of its commercial production in the country till the expiry of the patent.

(iv) The DPCRC has suggested that the low cost drugs measured in terms of "cost per day per medicine" may be taken out of price control. Any formulator can represent to NPPA with proof of per day cost to consumer-patient. NPPA will be authorized to exempt such formulation from price control if its cost to consumer-patient does not exceed Rs. 2/- per day, under intimation to the Government. All orders passed by the NPPA will be prospective in operation. Whenever the concerned formulator wishes to revise the price, he, before effecting any change in price, would be bound to inform NPPA and seek fresh exemption and in case the cost to consumer-patient, on the basis of the proposed revised price, exceeds beyond the limit of Rs. 2/- per day, obtain the necessary price approval.

(g) <u>Pricing of Scheduled Bulk Drugs</u>

(i) For a Scheduled bulk drug, the rate of return in case of basic manufacture would be higher by 4 per cent over the existing 14 per

cent on net worth or 22 per cent on capital employed. The time frame for granting price approvals will be 4 months from the date of the receipt of the complete prescribed information.

(ii) The Government shall, however, retain the overriding power of fixing the maximum sale price of any bulk drug, in public interest.

(h) Monitoring

(i) The DPCRC's recommendations to have effective monitoring and enforcement system and to move away from the "controlled regime" to a "monitoring regime" is in the present context an extremely important recommendation as imports will increasingly compete with local drugs and pharmaceuticals in the domestic market. A new system based on solely market prices data is required to be evolved and controls applied selectively only to cases where, either profiteering or monopoly profit seeking is noticed. The National Pharmaceutical Pricing Authority, set up in August, 1997, would need to be revamped and reoriented for this purpose. It will continue to be entrusted with the task of price fixation / price revision and other related matters, and would be empowered to take final decisions. It would also monitor the prices of decontrolled drugs and formulations and over-see the implementation of the drug prices control orders. The Government would have the power of review of the price fixation/and price revision orders/notifications of NPPA.

(ii) Although the prices of some bulk drugs have been steadily decreasing, yet the same do not get reflected in the retail price of non-Scheduled formulations. Also, there is need to check high margin/commission offered to the trade by printing high prices on the labels of medicines to the detriment of the consumers.

It is, therefore, proposed to strengthen the National Pharmaceutical Pricing Authority by providing appropriate powers under the DPCO which would make it mandatory for the manufacturer to furnish all

information as called for by NPPA and also to regulate such prices, wherever, required.

(iii) The other recommendations of DPCRC like giving powers to drug control authorities to dispose of small and petty offences etc., will require an amendment to the Essential Commodities Act. This suggestion is considered not practicable. Monitoring price movement of drugs sold in the country as well as that of imported formulations will require developing appropriate mechanism in the NPPA.

(i) Drug Price Equalization Account (DPEA)

Provision would be made in the new Drugs (Prices Control) Order (DPCO) to ensure that amounts which have already accrued to the DPEA and those which are likely to accrue as a result of action in the past, are protected and used for the purpose stipulated in the existing DPCO.

VII. QUALITY ASPECTS

The Ministry of Health & Family Welfare would progressively benchmark the regulatory standards against the international standards for manufacturing, progressively harmonize standards for clinical testing with international practices, streamline the procedures and steps for quick evaluation and clearance of new drug applications, developed in India through indigenous R&D, and set up a world class Central Drug Standard Control Organization (CDSCO) by modernizing, restructuring and reforming the existing system and establish an effective net work of drugs standards enforcement administrations in the States with the CDSCO as a nodal center, to ensure high standards of quality, safety and efficacy of drugs and pharmaceuticals.

VIII. PHARMA EDUCATION AND TRAINING

The National Institute of Pharmaceutical Education and Research (NIPER) has been set up by the Government of India as an institute of "national

importance" to achieve excellence in pharmaceutical sciences and technologies, education and training. Through this institute, Government's endeavor will be to upgrade the standards of pharmacy education and R&D. Besides tackling problems of human resources development for academia and the indigenous pharmaceutical industry, the institute will make efforts to maximize collaborative research with the industry and other technical institutes in the area of drug discovery and pharma technology development.

AVENTIS PHARMACEUTICAL LIMITED(HOECHST MARION ROUSSEL) ANKLESHWAR:

Aventis (formerly known as Hoechst Marion Roussel), ranking #4 in the domestic formulation market has gradually increased its presence in high margin therapeutic segment of CNS, diabetes, cardiovascular and life saving drugs.

The global pharmaceutical industry is research driven. New drug R&D cost being prohibitive, it is limited to pharmaceutical MNCs in developed nations where product patents are enforced. High prices of under-patent drugs are causing a shift to generics, especially in USA. So, to spread their R&D costs over a larger base, pharmaceutical MNCs are consolidating through mergers/ alliances. Historically, India has recognized only process patents. Now, under WTO, India too has to enforce product patents from the year 2005 AD.

In the Rs160n Indian pharmaceutical sector, prices of over 50% of the drugs/ formulations are Government controlled (through DPCO). In the domestic bulk drugs market, low entry barriers have resulted in overcapacity. So, major players are focusing on formulations. Most players are increasing their overseas marketing/ manufacturing network in order to enhance exports. MNCs are also strengthening their ranks in India - either acquiring majority stake in existing ventures or setting up new 100% subsidiaries.

Hoechst is aggressively launching high value formulations from global portfolio of the parent company, without fear of being reverse engineered by

the local companies. Exports to Russia will continue, as it remains a lucrative market.

Business:

Hoechst's F12/00 sales mix is dominated by formulations (95.7%), with only a meager proportion of bulk drugs (3.4%).

Products:

Hoechst has a very large and diversified product portfolio, with significant share of antibiotics. Their major brands are detailed below along with their % of combined retail sales. The company has shifted its product portfolio towards faster growing categories and thus, the share of anti infectives has declined over time.

Brand	% Sales	Therapeutic segment	Growth (%) Apr-Mar2001	DPCO
Rabipur	13.6	Anti-rabbies vaccine	13.0	N
Daonil	11.9	Anti-diabetic	(5.0)	N
Combiflam	9.2	Anti-inflammatory	(1.2)	Y
Cardace	7.8	Cardiovascular	65.0	N
Soframycin	6.6	Topical anti-infective	1.2	Y
Avil	4.9	Anti-allergic	(8.5)	Y
Lasilactone	3.5	Diuretic	3.8	N
Amaryl	3.4	Anti diabetic	75.0	N
Allegra	3.2	Anti-allergic	17.5	N
Trental	3.1	Cardiovascular	23.0	N

SOURCE: INDIA INFOCOM.COM & CII.

F12/2000, Aventis divested two brands- Omnatax and Haemaccel as part of portfolio restructuring exercise. The best performing brands are the newer

brands like Allegra, Cardace and Amaryl which have attained significant volumes and are likely to drive growth in the future.

In marketing, the combined field force has been restructured into five teams for wider and more effective coverage: the Acute Care Team (thrombosis and anti infectives), the Chronic Care Team (cardiovasculars, metabolism, CNS and vasotherapeutics), the Primary Care Team (covering respiratory, vaccines, anti infectives, diuretics and metabolism), Channel Sales (dermatology, analgesic and respiratory) and the Oncology Team.

Exports:

Exports in F12/2000 was marginally lower than previous year due to non renewal of insulin tender, restructuring activities in Bangladesh and discontinuation of supplies of Tolbutamide to Germany. The parent has decided to source Daonil from India for European markets which could boost exports. The company has taken the concrete steps to improve at operating level:

- **Closing down expensive units:** The company has nearly closed down 2 of its expensive units at Mulund and Thane.
- **Employee cost** is expected to decline significantly in future as the company has offered VRS to 479 employees at Mulund plant.

Product rationalization: The company has pruned its product portfolio from 131 in FY98 to 90 in FY99. From FY99, Aventis has consciously increased its focus on high margin therapeutic segment of cardiovascular, anti-diabetic, CNS, vaccines and life threatening anti-infectives.

TORRENT PHARMACEUTICALS LIMITED, BARODA & AHEMEDABAD:

Torrent Pharmaceuticals Ltd., is the flagship company of the Torrent Group. Founded in 1972 by Shri U. N. Mehta, it operates with a philosophy of rapidly developing and marketing new formulations in niche therapeutic areas at

affordable prices. With the launch of Trinicalm plus, an effective tranquilizer in CNS segment in the early seventies and Calcigard (Nifedipine) - a calcium channel blocker in the cardiovascular segment in 1985, Torrent has taken rapid strides in the last four decades to become a front-runner in the areas of Cardiovascular and CNS and command a significant presence in Gastrointestinal and Anti-infective segments. Torrent was one of the first few Indian Pharmaceutical companies to make its foray into exports successfully, amply recognized in the "Export Excellence Award" bestowed by the Government of India. The formulations are largely developed in-house at its Research & Development Centre. Torrent, amongst the first few to realize the importance of research in India, created one of the finest infrastructures for both basic and applied research in Torrent Research Centre.

Strategic Alliances:

Manufacturing of Insulin for Novo Nordisk A/s Denmark - a world leader in diabetic care

Products:

- Ethical Formulations
- Entire range comprising oral, pouenteral and topical.
- 58 Molecules
- More than 115 product
- Bulk Drugs

Location:

- Area -162,000 Sq.Metre.Land
- 31,000 Sq.Metre. Constructed Area.

Annual Capacity:

- Formulations : 4.5 billion Tablets, 0.8 billion Capsules (Soft & Hard), 80 million Injections I vials, 16 million bottles Or Liquids, and Freeze Dried Sterile Injections. Active Pharmaceutical Ingredients 14,000 Kgs.

- Expansion and modernization underway at a cost of US$ 15 million to meet MCA and MCC specifications (Europe, South Africa, etc.)

Manufacturing – Technology:

- Plant Design meets CGMP guidelines
  Hygiene Zones, i.e. 'O' Open Products Area,
  'E' Closed Product Area, 'F' Non Production Area
- Material and Staff Movement arranged to prevent cross contamination.
- Minimum Human handing for Materials.
- Process Water meets USP 24 specifications
- Equipments provided with Product Recipe and Data Acquisition.

Quality Assurance in Manufacturing:

- First Indian pharmaceutical plant to get ISO 9001 certification.
- Quality Assurance is independence of Manufacturing.
- In-Process Quality is checked during manufacturing.
- Validation of facilities, Equipments, Process, Products & Cleaning as per Master Plan.
- Complaint Handling.
- Storage of Quality Record and Control Samples.
- Stability Studies.
- Registration Documents (DMF).
- Leaders in Cardiovascular and Psychotropic Segments.
- Significant presence in Gastro Intestinal and Anti-Infective segments
- Therapeutic coverage recently enlarged to include Anti-diabetics.

WOCKHARDT LIMITED, ANKLESHWAR:

Established nearly four decades ago, Wockhardt Limited today is a research and technology oriented pharmaceutical company ranked amongst the top 5 in India. Wockhardt has emerged as a leading player in domestic as well as international markets, with widely accepted and efficacious drugs and

formulations. The company has developed leading brands in Anti-infectives, Pain & Inflammation, Cough, Psychiatry, Medical nutrition and Biotechnology segments.

Wockhardt has an active multi-disciplinary R&D programme involving over 300 scientists, largely focused on developing innovative technologies and New Drug Discovery. The company has a team of over 90 scientists engaged in new drug discovery research and has several new chemical entities in the field of sepsis and anti-infectives.

COMPANY HIGHLIGHTS:

- 24th largest wealth creator
- Ranked amongst the 50 most valuable companies in India
- Rated among the Top 10 emerging Corporates in India (Economic Times, 1999)
- Wockhardt employs 2700 people of which more than 1300 constitute the field force covering 1,50,000 Doctors
- 35% of total sales come from International Business
- Listed on Bombay Stock Exchange, National Stock Exchange and on Luxembourg Stock Exchange
- R&D programme rated among the top 3 in the country with R&D spend of 7% of sales - one of the highest in the country.
- Managed by the "Best" Board of Directors in the pharmaceutical industry (Source: Business Today, May, 1997 survey.)

CLARIS LIFE SCIENCES, AHEMEDABAD:

Claris is a R&D based, international pharmaceutical company offering products and delivery systems of world-class quality, to achieve the objective of saving lives worldwide. The architects of Claris are a team comprising of scientists, pharmaceutical experts and management professionals, who bring to the company a combination of Vision, R&D capabilities, Technological know how, International exposure and Manufacturing expertise.

The company's range of products and delivery systems extends across Critical Care, Enteral and Parenteral Nutrition, Renal Care including Transplant Therapy and Medical Equipment. The company enjoys Market Leadership Position in several product categories in India and a significant presence globally.

Claris has marketing operations in more than 30 countries, through its subsidiaries, offices and distributors, with a customer profile including institutions, major corporate hospitals and international aid agencies.

BUSINESS PROFILE:

Critical Care

The Claris product basket in Critical Care includes Anaesthesia, Blood and Plasma products, I.V. fluids and Advanced Antiinfectives/Antibacterials.

The company's expertise in lipid based technology has made it one of the few companies in the world to manufacture Propofol. The entry of this advanced anaesthetic revolutionized the way anaesthesia was given in the country. Today, Provive™ is an internationally accepted brand while Profol™ is the no. 1 brand of Propofol in India and one of our best selling success stories.

Our gamut of products in Critical Care helps medical professionals in providing high quality, effective, and speedy treatment to patients in the operation theatre, ICU, regular hospital setting or at home.

Nutrition:

The link between malnutrition and increased risk of complications in patients is a proven one. Good nutrition practice makes a vital difference in quality and time of recovery of such patients.

Nutrition solutions from Claris include Enteral and Parenteral Nutrition products and delivery systems. Claris is the Market Leader in Parenteral

Nutrition, with a product range encompassing amino acid solutions, fat emulsions, trace elements and advanced delivery systems like PNA™ and Celemix™, which come with the convenience of multiple nutrients and the flexibility to add other nutrients for a tailor made preparation. Products, individually or as a combination, are designed to meet specific and unique nutritional needs of different patients suffering from malnutrition.

Renal Care:

Kidney failure is one of the most debilitating diseases to occur to a human being. Its incurable nature makes it a critical disease, like cancer or AIDS. In the Renal Care segment, Claris offers a range across systems, solutions, medicines, disposables and equipment. The company is the first in India and one of the few in the world to manufacture Perfusol™ -cold organ preservation system for transplant, and Renograf™ - multi organ perfusion system. Today, Renograf™ is used in one out of every three transplants in India.

Pharmaceutical Generics:

Claris offers injectables and oral dosage forms across various therapeutic groups with focus on antibiotics, antibacterials, antiinfectives, etc. Medical Devices and Disposables The company's range of products in medical devices and disposables includes blood bags, two piece syringes, needles, I.V. infusion sets and disposables for haemodialysis.

Medical Equipment:

As in all spheres of life, technology is adding convenience to medicine also. Claris has a broad spectrum of Medical Equipment, including the Protiva 2000™ - anaesthesia pump, Infulife SP™ - syringe pump, Oxylife™ - oxygen concentrator and Invocare HD™ - state-of-the-art dialysis chairs and beds. All designed to offer convenience, comfort and ease of use.

SARABHAI CHEMICALS LIMITED, BARODA:

Sarabhai Chemicals Limited is a unit of Ambalal Sarabhai Enterprises and is in the business of formulations. The company started in 1943, at which the time the company started manufacturing prescription drugs, products and chemicals. Growth and development, the important feature of Sarabhai Chemicals made it one of the most prestigious companies in India. In terms of life saving and essential drugs, Sarabhai Chemicals has played a very vital role in India.

The product list of the company is quite big. The range includes vitamins, tonics, antiarseric?, digestive, enzymes, ointments, liquid oral, antibiotic orals, injectables etc. some of the well known medicines include Reclor, Pentids, Limcec, Kenalogs, Kenacoub, Kenacort injection, Carbetazine, CRYS –4, Etinal. Emphasis is also laid on R & D

a) Process development of new bulk drugs and intermediates
b) Process improvement and cost reduction in fermentation process, extractional anti-biotic and pilot plant trials for determining optimum parameters.
c) Development of new pharmaceutical formulations.
d) Development and standardization of product packages
e) Establishing the standards, specifications and analytical procedures of new products and intermediaries.

Sarabhai Chemicals has a separate R & D centre called Sarabhai Research Centre, which is engaged in finding out new drugs. The following are various divisions:

1) The medicinal chemistry division
2) The pharmacology division
3) The toxicology division

4) The microbiology
5) The parasitology
6) R & D

Sarabhai Chemicals is one of the oldest pharmaceutical companies in India and one, which enjoyed repute in yesteryears. The company employs approximately 2500 employees at its work a BARODA. The structure of company is complex with 8 levels of managers and tremendous horizontal differentiation.

The turnovers of the company is around 200 crores and the company is neither making profits nor losses. However, there is little emphasis given to the HRD activities in the organisation.

RPG LIFE SCIENCES, ANKLESHWAR:

The Goenkas' business origin can be traced to 1820, when Ram Dutt Goenka arrived in Calcutta from Rajasthan, India, to do business with the then British East India Company. Following the change in business conditions in India and the consequent loss of monopoly status of the East India Company, the business of the Goenka family spread in different directions, particularly in banking as well as trading in textiles and later jute and tea.

Hari Ram Goenka was knighted by the British for his outstanding contribution to Indian business and community service. Sir Hari Ram's youngest brother Badri Das was also knighted. He was the Sheriff of Calcutta, one of the earliest presidents of the Federation of Indian Chambers of Commerce and the first Indian Chairman of the then Imperial Bank of India, which later became the State Bank of India. Hari Ram's son Keshav Prasad became associated with the well known British trading house Duncan Brothers and took pioneering steps in setting up new industries. Keshav Prasad, like his father, became a director of India's central bank, the Reserve Bank of India, a position later held by his son Rama Prasad, better known as RP.

Vision:

We will attain undisputed leadership in our core sectors with global leadership in at least one business. Our market capitalization will be among the top three business groups. We will achieve this vision by: Exceeding customer expectations, Building a people oriented group, which inspires and excites people in a professional yet entrepreneurial environment and Being the best in our business segments in terms of returns on capital employed.

Performance:

It is one of India's best-managed groups of companies with a diversified but integrated presence. The group's operating style seeks to achieve the right fusion of professional management and entrepreneurial drive. The group's Financials show its enormous strength in forging a strong economic path for the country as well as for itself.

- Amongst the top five business houses in India
- Group turnover of Rs. 66 billion
- Compounded growth in turnover of over 25% per annum over the last decade.

Quality Policy:

The primary goal of the RPG group is to achieve customer satisfaction through building trust and confidence in our customers by anticipating, understanding and meeting in full customers' needs with a helpful attitude and supportive behaviour and providing them with consistent quality products and services. We will achieve this as a team with the full involvement of our suppliers, employees and partners.

ENGINEERING INDUSTRIES

Industrial Scenario:

The industry sector recorded a growth rate of 6.5% in 1999-2000. This was mainly due to high growth rates recorded in manufacturing and electricity sectors. The growth rate declined to 6.0% for April – November 2000. Mainly owing to poor performances of some sectors viz. the capital goods, power, heavy vehicles, paper & paper products etc. Production figure for the period April –November, 1999 and April – November, 2000 for some of the industry being dealt with by the Department of Heavy industry is given below:

	PRODUCTION		Growth Rate
	April '99-Nov.'99	April 2000-Nov.2000	%
Industrial Machinery(Rs.cr)	1914.10	1393.58	-27.19
Machine Tools (Rs.cr.)	937.12	838.82	-10.49
Boilers (Rs.cr)	829.51	853.97	2.95
Turbines(Steam/ Hydro) (Rs.cr.)	309.26	370.87	19.92
Electric Generators (Rs.cr.)	338.92	263.34	-22.30
Power& Distribution Transformer (Million KVA)	31.59	44.39	40.52
Telecommunication Cables (Million KMs)	15.22	19.77	29.88
Commercial vehicles (Nos)	105856	91061	-13.98
Passenger cars(Nos)	367289	333346	-9.24

SOURCE: CONFEDRATION OF INDIAN INDUSTRIES

There are concerns about the slow-down in industrial production in the country, which is only a process of readjustment in the new economic environment. However, to accelerate industrial growth rate, the government is taking various policy initiatives supported by continued reforms in different areas including Foreign Direct Investment Policy, EXIM Policy, Infrastructure development, Information Technology and financial sectors to help industry improve its efficiency, productivity and international competitiveness.

GUJARAT MACHINERY AND MANUFACTURING LIMITED, ANAND:

G.M.M.LTD. was incorporated in India as a private limited company on Novemeber 17th, 1962 by an ambitious man named as JETHABHAI. V. PATEL, at Karamsad was due to his native place he had established the plant at Karamsad and thus he wanted to offer something socially and economically to his motherland.

The Company's principal activity is the manufacturing of corrosion resistant glass lined equipment, used primarily in the chemical, Pharmaceutical and allied industries. It is also making non-glass lined equipments; such as agitated notch filters, filters, filter driers and wiped film evaporators.

GMM was using its own technology for producing glass- lined equipments. But, in the year 1969, they decided to produce more technological products and entered into the first collaboration with NIKEX Hungarian Trading company "Lampart" for the manufacturing of glass lined equipment. This collaboration was of five years and ended in the year 1974. After that collaboration, GMM started to search for new foreign collaboration with any well known company. It got two options, i.e., either to join with world No.1 Pfaudler or to join with the world No.2 France Company.

Obviously, GMM selected No.1 company of world, i.e. Pfaudler and entered into technological as well as financial collaboration with them. In the year 1987 to 1989 they transferred technology from Pfaudler. Pfaudler is having their main office in the U.S.A. This collaboration was signed in 1989 by Mr.

Ashok Patel (M.D.). Pfaudler was having 40% equity in the company. Pfaudler inc 40% of the total issued share capital of GMM Ltd. And provides technical know-how along with financial assistance. The collaboration is in existence till today. At present the share of Pfaudler inc. has been increased by 11% i.e.51%.

Pfaudler is a leading manufacturer in the world of corrosion resistant equipment for the chemical processing and entered into a technical know how agreement with Rosenmud AG Edlon Products, INC for the manufacturing of certain chemical process equipment and fluoro polymer products. Now GMM produces high quality glass lined equipments of the capacity of 25,000 liters and of many more different capacities. Despite this, it produces wiped film evaporators, agitators and mixtures, watering pumps, pressure.

GMM is having a line type structure of organization. Line characterized by the principle of unity of command into one hand. It ultimately results into discipline, punctuality rests in the hands of managing director. There is a well defined relationship of authority and responsibility between superior and subordinates.

ELECON ENGINEERING LIMITED, ANAND:

Elecon Engineering Company Limited was basically known as "Milling Trading Company" established in 1914 & function as a machinery imports. In 1951, the Milling Trading Company imported an idea of establishing an indigenous organization to manufacture material handling equipment in the country and thus Elecon came into existence as a private limited company in 1951at Goregaon, Mumbai.

The name of company is derived from its two main products namely ELEVATOR & CONVEYOR. After getting valuable experience of the decade Elecon shifted to V.V.Nagar from Mumbai in the year 1962. With the passage

of more than four decades, elecon has become the single largest Indian Company manufacturing the composite range of almost all types of bulk material handling equipments and products. For almost 5 decades, Elecon has supplied hi-tech equipments to major core sectors such as steel, fertilizer, cement, coal, lignite and iron ore mines, power stations and port mechanizations in India and abroad.

Elecon commenced manufacture of Reduction Gear units in 1962 and set up a separate Gear Division in the year 1976. It was the first to introduce modular design concept, case hardened and ground gear technology in India.

Elecon has achieved international recognition by receiving ISO 9001 Certificate from M/s. TUV SUDDEUTSCHLAND (formerly known to TUV BAYERN) for Design, Manufacture, Supply, Erection, Testing, Commissioning and Servicing of turnkey material handling systems and equipments.

- Elecon was established in the year 1951 at Goregaon, Mumbai.
- Shifted to Vallabh Vidyanagar in 1962.
- The name 'Elecon' derived for first three letters ELE of its main product 'ELEVATORS' and three letter con its 'CONVEYORS'.

ORGANISATION SET-UP:

No. of Employees	Approx. 3500
Annual Turnover	150 Crores Approx.

MAIN PRODUCTS:

Elevators, Conveyors, Vibrating feeders , Wagon tipplers, Cranes, Reduction Gears.

TURN KEY PROJECTS:

- Coal Handling Plants.
- Sugar Handling Plants.
- Dry Crushing, Screening and Handling Plants Etc.

- Fertilizer Plants
- Sole Selling Agents: Emtici Pvt.Ltd. V.V.Nagar.
- Branches: Bombay, Culcutta, New Delhi Ahmedabad, Banglore, Madras.
- Our Main Site Set-up at present: Neyveli (Tamilnadu), Korba (MP), Ramagundam (AP), Maihar, Dbra, Patratu, Wanakbori (Gujarat)
- Social and Welfare activities.
- Two pairs of cloths and one pair of shoes to workers.
- Educational aid to children of employees.
- Canteen at subsidized rates.
- Sports club, Cultural society and own cini club building.
- Own ICC plant for cold water.
- Co-operative credit society.
- Transport facility for staff members.
- Medical treatment facility.
- Dashera Day celebration
- Conveyance facility and HRA facilities.
- Industrial Relation
- Very co-ordial relation with workers and employees.

ELECON VISION:

- For close to half a century has contributed to nation building activity through infrastructural development & bulk material handling solutions thereby positively impacting the livelihood of millions & promises to do in future keeping in interest of our customers on our minds & deeds.
- Courageously we shall continue to improve & adopt to changes & be a market leader by always remaining step ahead in technology & quality & strive to widen our horizons through globalization.
- We shall meet the aspirations of our stakeholders & enhance their wealth.

- We shall create a joyful & a happy elecon family of smiling faces through love & honestly.
- We shall always remain conscious of our social obligations & adopt environment friendly practices.

MANUFACTURING FACILITY:

Elecon has workshop are of more than 63000 Sq. meter which has equipped with the latest CNC and NC machine tools, quality control and testing equipment for production of highly reliable material handling for production of highly reliable materials handling and power generation transmission equipment.

The company has modern manufacturing unit in Madras & South India. The unit proximity to a well-developed port provides it which logical advantage in exporting its products.

PRODUCT RANGE:

Sr. No.	Type of Product	Function / Application	Range / Capacity
1	Rotary Wagon Tippler	Designed for unloading broad gauge open rail wagons.	Load up to 110 tons
2	Rotaside wagon tippler	Designed for unloading broad gauge open rail wagons.	Load up to 110 tons
3	Wagon marshalling equipment	For charging and spotting of wagon on tippler table by beetle charger and side arm charger for hauling wagons.	------
4	Idlers	Supporting conveyor belts in conveying system.	Up to 24,000 tph
5	Conveyor system	For handling materials	At the rate of 1500 tph, 3000 tph, 20,000 tph
6	Feeder breaker	Suitable to move 1500 tons or move material per hour, consuming 20% - 30% less power than conventional breaker.	1500 tons
7	Vibrating feeder	To move material to belt screen, elevators etc.	Up to 1.6 t/hr and 15 t/hr
8	Paddle feeder	For reclaiming bulk material from bunkers, silos and stockpiles.	----

9	Apron feeder	To receive and control the flow of material from bins and hoppers.	Custom mode
10	Pulley	Suitable for conveyors of belt width ranging from 400 mm to 2400 mm	Up to 24,000 tph
11	Crushers ▪ Impactors ▪ Hammer crushers ▪ Ring granulators ▪ Single roll crushers ▪ Toothed double roll crushers	For crushing limestone, coal, bauxite, gypsum, bituminous coal, slag, lignite, coke, cinter, etc. in between the conveyor system in different stages	100 to 1000 mtph for lime stone 100 to 1200 mtph for coal.
12	Stacker reclaimer	Stackers for stacking and wheel on boom reclaimer for handling bulk materials like coal, iron ore limestone etc.	300 to 2000 mtph
13	Scraper	To scrap lime stone, coal, gypsum etc.	---
14	Wind electric generator	Generation of electricity by wind power.	300 kw
15	Flexible coupling	Power transmission	50 to 26,000 hp
16	Geared coupling	For positive transmission of power	0.06-200 kW/ rpm
17	Fluid coupling	Ideally suitable for soft start.	1.1 to 1300 kW
18	Spiral bevel helical gear	Right-angled gear with solid and hollow construction.	2850 kW
19	Helical gear	Power transmission	Up to 7700 kW
20	NU worm gear	Power transmission with reduced speed and available in horizontal/vertical and hollow shaft design.	Ratio from 5:1 to 70:1 Rang 15/8" to 17"
21	Planetary gear box	Suitable for various application such as bucket wheel and slewing drives for stacking and reclaiming	---
22	Slewing gear	Used in slewing mechanism of stacker reclaimer.	Range 1.5 kW to 36 kW Ratio from 400:1 to 1000:1
23	Magnetic separator	Over head self-cleaning type Electro-magnetic separators and suspension magnets.	---
24	Travelling tripper	For discharging material on	Up to a belt width of

		bunkers and open storage area.	1600 mm
25	Belt weighers	Microprocessor based electronic belt weighers installed in between conveyor to verify weather the conveyor works on its proper capacity or not.	Suitable for belt width up to 2500 mm and capacity up to 10,000 tph
26	Travel drive gear	Suitable for application like travel drive of stacker reclaimer.	Power ranges from 3.75 kW to 15 kW Range of ratio from 14:1 to 100:1
27	Cable reeling drum	Used on mobile equipment for power supply.	Power 400 kW to 1,000 kW Torque 100 to 1350 Rpm 40 to 60
28	Geared motors	For power transmission	Size from 0.16 hp to 125 hp.

ESSAR STEEL LIMITED, HAZIRA, SURAT:

The Ruia family has been in business and in trading since the 1800s, when the family first moved to Mumbai from Rajasthan in western India. In 1956, Nand Kishore Ruia, the group founder, moved south to Chennai to begin independent business activities. In 1969 following the untimely demise of Nand Kishore Ruia, his sons Shashi and Ravi Ruia took over the group. Essar's growth had already begun with contracts for the construction of ports, jetties and berths. Over the next few years, Essar grew rapidly in the related fields of offshore construction, pipe laying, contract drilling and marine transportation.

From the beginning, the group was built on businesses at the heart of the Indian economy, often replacing foreign enterprises in India, such as in oil and gas services, construction or shipping. The year 1987 marked its entry into the core manufacturing sector, as Essar Constructions began to build a hot briquetted iron plant at Hazira. Over the next decade, it invested billions to build a 2.4 mtpa steel mill and a 515 MW power plant at Hazira, a 3.3 mtpa pelletisation plant in Vishakapatnam, a 200,000 tpa cold rolling mill in

Indonesia and a 10.5 mtpa oil refinery which is under construction at Vadinar, Gujarat.

The Essar Group with an asset base of Rs.17,000 crore (US $3.6 billion) has its presence in core sector businesses. Chairman Mr. Shashi Ruia and Vice-Chairman Mr. Ravi Ruia head the Group, founded over three decades ago. Essar's businesses are at the heart of the Indian economy - Steel production, Exploration and Drilling of Oil, Power generation, Constructions, Shipping and lately the sunrise sector of telecom services, to continue the Group's rapid growth.

MISSION:

To create enduring value for customers and stakeholders in core manufacturing and service businesses, through world-class operating standards, state-of-the-art technology and the 'positive attitude' of our people.

In spite of higher sales, Essar Steel Limited (ESL) bottom line has been adversely affected during FY2000. The company has recorded a loss of Rs. 5.81bn as compared to Rs4.96bn in FY99. The increase in loss has been on account of interest expenditure worth Rs1.32bn and depreciation at Rs3.30bn. Essar has recorded a 10% increase in the volume of sales to 16.20 lakh tons while in value terms the sales have grown by 7% to Rs. 24.21bn. The company registered a record performance in exports, which surged by 46% to 6.45 lakh tons (Rs6.80bn).

Essar Steel has finally resolved the FRN issue. The FRN holders have opted for increasing the maturity period by five years. The repayment will be in three phases – 10% of the notes falling due in the 3rd year, another 10% in the 4th year and the remaining 80% in the 5th year.

A number of methods initiated by the company to reduce costs and increase the utilization of the existing capacity has proved to be successful. Essar

steel is holding talks with a German based company for the reduction in cost by means of technology up gradation. In FY2000 the company has recorded a reduction in power consumption by 100KW to 600KW.

The net sales of the company have gone up by 49.1% in Q1 FY01 to Rs6.8bn. The total Hot Rolled Coils (HRC) sales for the company aggregated 419,000 tons for 1QFY2001, compared to 328000 tons in the corresponding period in the previous year, recording a growth of 28% in sales volume. A better product mix and higher exports also contributed to the growth in top line. The exports registered a rise of 78% at 215,000 tons. The company has also been able to keep its costs under control. This long with the higher realisations has improved the operating margins to 32%. The higher margins have helped the company to turn around posting a profit of Rs48.7mn in Q1 FY01.

Although the steel industry has got over its worst times, the prospects for the current fiscal do not look too good. The prices of hot rolled coils have started dipping in the international markets mainly as a result of the inventory build up in the US. Although prices are expected to hold on to these levels, it is doubtful whether they will show the same kind of growth rates as witnessed in FY2000.

STEELCO GUJARAT LIMITED, BHARUCH:

STEELCO GUJARAT LIMITED is a part of the comcraft Group which is an international Business Group promoted by chandarias who are Non Resident Indians. Comcraft Group is a 2 Billion Conglomerate with about 200 units in around 30 countries across the globe. Its business activities comprise Steel, Aluminum, Metals, Chemical, Plastics packing systems etc.

STEELCO GUJARAT LIMITED is the one of its kind Engineering industry in Gujarat. This 300 Crore industries located at Palej in Gujarat produces 2,00,000 TPA of cold rolled sheets and coils Galvanized & corrugated coils/sheets & ranks among the largest producers of CR sheets & coils in the

private sector India. The State of art plant has been set up in technical collaboration with M/S Hitachi of Japan. SGL has been jointly promoted by ESSAR Gujarat Limited. The end users of its product are Automobile, Electrical, White goods industry. A major portion of its production is exported to African countries, Nepal, Singapore, Bangladesh, Bhutan etc.

SGL was set up in 1992. SGL has a committed work force of about 400 people. The entire Production process is spread over the following departments:

- HR Sitter
- Pickling line
- Cold Rolled Mill
- Electrolytic/ Electric Cleaning line
- Bell annealing Furnace
- Inspection / Q.A.
- Trimming
- Slitting
- Cut to length
- Packing

VISION & MISSION STATEMENT:-

VISION:-

STEEL WITH QUALITY

MISSION:-

- Improving product efficiency by cost control.
- Usage of yield optimization techniques
- Promoting employee participation and awareness
- Establishing, Maintaining & Continuously improving quality management system.
- Maintaining effective safe & healthy environmental conditions.

- ❖ Improving upon delivery schedules.
- ❖ Enhancing range of products by exploring new market.
- ❖ Promoting teamwork.

INVESTMENT IN PLANT & MACHINERY:

About Rs.80 Crores is investment in plant & Machinery in SGL

PRESENT PROFILE:

SGL has been promoted by the chandarias of the international comcraft Group & ESSAR Guj. Limited. SGL is implementing a project to manufacture 2,00,000 TPA of CR coils at Palej in Bharuch district of Gujarat. The plant has been set up in technical collaboration with M/s Hitachi to Japan to produce high quality, Internationally acceptable products.

The chandarias have business interest in Steel, Aluminum Plastics, Chemicals & Electronics in Europe, America, Africa, Australia & South East Asia. The chandarias have set up units with annual processing capacity of 1 Million tones in various countries including Kenya & Nigeria.

MANPOWER STRENGTH ON 30-3-2002

Location	Executive	StaffEngg.	Sub staff	Workmen	Trainee	Total
Palej	65	146	3	93	5	312
Vadodara	-	1	1	-	-	2
Delhi	2	-	-	-	-	2
Mumbai	1	3	3	-	-	7
Chennai	1	-	-	-	-	1
Total	69	150	7	93	5	324

Future Expansion Plans

Steelco Gujarat Limited is going to expand the company and develop two more new production lines in future namely.

1. Galvanizing line
2. Cut to length line

MILESTONES OF SGL:-

1991	Foundation of SGL laid down
15th July 1993	Date of Commission of Industrial plant/s which installed capacity to Produce 2,00,000 MT of CR sheets & coils.
12th Aug 1993	Public issues of Equity Shares SGL entered the Capital market Plant / Project cost Rs.185 crores.
April 1994	Full-fledged production of CR coils & sheets
12th April 1997	Commissioned Galvanizing plant -To cater to the needs of Galvanized sheets & corrugated Sheets which are largely used for roofing purpose.
4th March 1999	Celebration of first National Safety Day at SGL with various competitions to commemorate the National Safety Day.
31st Aug.	An amicable settlement W.E. of 01.01.1999 up to 31.12.2001 was signed between the representatives of Management and workmen's.
26th June 2000	SGL gets ISO 9002 certification from SGS International
22nd Feb.	Successful launching of Environment Management system 2001 leading to ISO 14001 certification.
April 2001	Inception of costing cell at SGL
23rd May 2001	Record production of 154.860 MT of Galvanized sheet produced during the day by Galvanize Department.
May 2001	Record high production of about 2814.91 MT was achieved by Galvanizing Department.
May 2001	Record dispatch of 2029 tonnes of material was established by Galvanizing Export during month.

23rd May 2001	Record production of 58.237 tonnes in C-shift was achieved by Galvanizing Department.
5th June 2001	"WORLD ENVIRONMENTAL DAY" CELEBRATED AT SGL. - with plantation of about 1000 & more sapling in SGL premises.
17th Sept. 2001	Celebration of Lord Vishwakarma Jayanti followed by a get-to-gather of all employees organized.
Sep. 2001	Record high export of G.I. sheets during the month. (Adding a Saga of continuous improvement).
7th Dec. 2001	An amicable settlement w.e.f. 01.01.2002 up to 31.12.2004 of management and workmen.
1st Oct. 2002.	SGL gets ISO 14001 (effective from SGS International)

FAG BEARINGS INDIA LIMITED, BARODA:

Fag Bearings India Ltd. (FBIL) is a leading manufacturer of ball and roller bearings in the country. It is a major player in the spherical roller bearing segment with a market share of 56%. It also has a market share of 35% in the cylindrical roller bearing segment. In the ball bearings segment, the company has a market share of around 19%. While the company's performance was affected in FY98 and FY99 due to the cyclical downturn in the automotive segment, the company improved its performance in FY12/00 by continuous improvement program, which led to cut in costs and improved efficiency.

Domestic bearing industry, estimated at Rs24bn in FY12/00, mainly produces small sized bearings. Organized sector has a share of 66% of the market, imports account for about 25-30% and unorganized sector accounts for the rest 5-10%. OEMs are mainly catered to by the organized sector. Replacement market being more prices sensitive has higher share of imported bearings. The domestic industry is completely dependent on foreign collaborators for technology support.

The automobile sector accounts for nearly 45 per cent of the demand for bearings. The Original Equipment Manufacturers (OEM) segment claims about 55 per cent of the auto sector demand. The bearings industry can be further sub-segmented into ball and roller bearings. Roller bearings further are of four types - taper, cylindrical, spherical and needle roller bearings. During the past six years, the highest growing sub-segments have been cylindrical roller and needle roller bearings. FAG Precision bearing is the market leader in cylindrical roller bearings; NRB Bearings leads in needle roller bearings.

- FAG is one of the world Leaders in Bearing Manufacturing Technology.
- FAG stands for : Fischer Aktien Gesellschaft (i.e. Fischer's Public Limited Company)
- FAG's history is more than 110 years old when in 1883. Friedrich Fischer founder of FAG, invented the First Ball Milling Machine and started manufacturing of balls (and subsequently Ball Bearings) at Schweinfurt-Germany. Hence, Fischer is nicknamed as "Kugelfischer" (Kugel is the German word for Ball).

ASEA BROWN BOVERI LIMITED, BARODA:

"Asea Brown Boveri is a federation of national companies, a multi-domestic organization that combines global scale and world class technology with deep roots in local markets "

Percy Barnevik
Former President and CEO of ABB

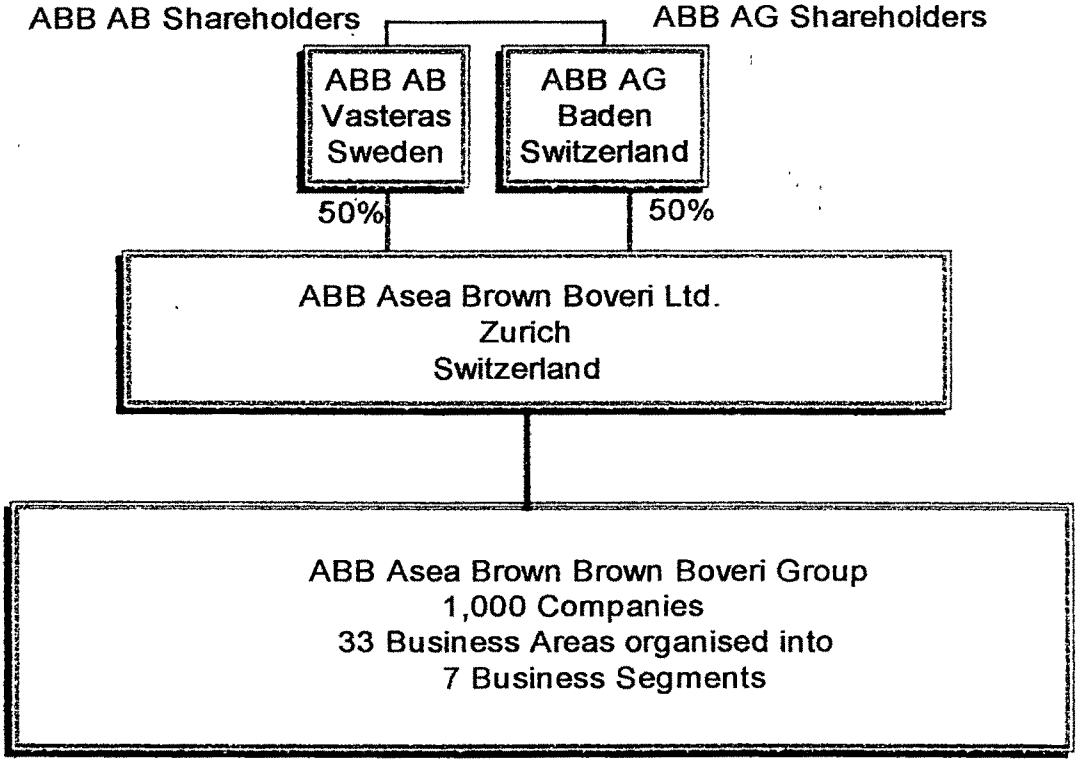
ABB is an acknowledged world leader in the Electrical Engineering Industry with over 1000 companies, 500 profit centres in 36 business areas and 2,10,000 employees in more than 100 countries in Europe, America, and the Asia Pacific region. It is a US $ 35 billion company and serves the markets for Electric Power Generation, Transmission and Distribution, Industrial Environmental Control and Mass Transit Markets.

ABB translates its global strengths to benefit and add value to customers in local markets across different countries through its multi-domestic approach. An approach, which enables ABB to draw on it s global resources, yet adapt and swiftly respond to individual and specific local demands.

How and when was ABB formed?

ABB was formed in 1988 with the merger of two leading European companies: ASEA (formed in 1883), a Swedish company and Brown Boveri (formed in 1891), a Swiss company both leaders in the field of Electrical Engineering. ASEA , incepted in 1883 has been the flagship of the Swedish industry for a century. BROWN BOVERI, which was formed in 1891, held a comparable industrial status in Switzerland. The merger of these two giants was historic leading to the emergence of a new world leader in the Electrical Power Industry, what the world now knows as ABB. ABB's organization structure is based on the matrix framework. This enables quick responses, speedy communication worldwide and an efficient sharing of resources.

GROUP OWNERSHIP STRUCTURE



Our worldwide business activities

Our worldwide business activities are grouped into the following Segments.

- Servicing customers in
  - Power generation
  - Power transmission
  - Power distribution
  - Automation
  - Oil, gas and petrochemicals
  - Products and contracting
  - Financial services
- **Segment Activities / Functions :**

- **Power Generation :**
  - Gas & Combi-Cycles
  - Steam Power Plants
  - Power Plant Systems
  - Nuclear Systems
  - Environmental Systems
  - Power Plant Service
- **Power Transmission :**
  - Cables
  - High Voltage Products & Substations
  - Power Lines
  - Power Systems
  - Power Transformers
  - T&D Service & Support
- **Power Distribution :**
  - Distribution Systems
  - Distribution Transformers
  - Medium Voltage Equipment
- **Automation**
  - Automation Power Products

- Instrumentation & Control Products
- Flexible Automation
- Marine and Turbochargers
- Petroleum, Chemical and Consumer Industries
- Pulp and Paper
- Utilities

- **Oil, Gas & Petrochemicals**
  - Oil, Gas & Petrochemicals
- **Products & Contracting**
  - Contracting
  - Low Voltage Products and Systems
  - Service
- **Financial Services**
  - Treasury Centres
  - Leasing and Financing
  - Insurance
  - Structured Finance
  - Energy Ventures

These Business segments are further classified into distinct **Business Areas (BA's).** Each BA is responsible for its own global strategies, business plans, allocation of manufacturing responsibilities and product development.

ASEA BROWN BOVERI - INDIA (INABB)

ABB has many homes. India is one of them. Recognizing India's importance as a key market amongst the emerging economies of Asia and in line with its multi domestic approach, ABB in India is geared to provide a full range of electrical engineering equipment and services for varied applications and demands. ABB. Holdings (South Asia) Limited, a 100% subsidiary of ABB. Zurich, formed to meet the groups objective of becoming the leading supplier in South Asia. Asea Brown Boveri Ltd., India was formed in 1989 as a logical

sequel to the merger of ASEA, with its headquarters at Bangalore, and Hindustan Brown Boveri, with its headquarters at Baroda. The ABB Group in India has over 7553 employees, 12 manufacturing facilities and four regional marketing offices. Our Corporate R & D centre is at Maneja. The manpower strength figure for INABB as on 31.04.98 stands at 4576

The need for being transparent, quick decision making has been translated in ABB's flat hierarchy. At ABB. have five managerial grades:

Grade A : MD, VP, GM , DGM
Grade B : SR. MANAGER, MANAGER
Grade C : DEPUTY MANAGER, ASST. MANAGER
Grade D : SR. ENGINEER, ENGINEER / SR. EXECUTIVE, EXECUTIVE
Grade O : OFFICER

Our Activities in India:

Activities of INABB fall into the following business segments:

- Power generation * (Poised to become a new Company – ABB Alsthom Power India Ltd.)
- Power transmission
- Power distribution
- Automation
- Oil, gas and petrochemicals
- Products and contracting

ABB Group In India:

- ABB Limited
- ABB ABL Limited
- ABB Instrumentation Limited
- ABB Lenzhom Service Limited
- Universal ABB Power Cables Limited
- ABB Elsag Bailey Limited

In Maneja, there is a **BAU - DDS** (POWER DISTRIBUTION SOLUTIONS). Its main activities are :

- 170 kV and below substations
- Feeder Automation
- System Studies
- Innovative (Compact) / Intelligent (Modular) Substations

Personnel and HRD Policy:

ABB's competitive advantage depends on attracting and retaining the best talent, through the synergy of motivation and team work. Human Resource is a key asset and developing this resource is a constant endeavor.

We at ABB will strive for :

- a challenging and rewarding environment
- value and skill orientation
- developing managers with high integrity with qualities of fairness, openness and individual respect for all
- developing professional skills, managerial competence enabling leadership, interpersonal, functional and administrative skills
- inculcation of Human Resources Development responsibilities as a key task for every manager
- managers acting as mentors to develop individuals for larger responsibilities
- managers being team players with a collaborative and interdisciplinary approach
- a fair reward system linked to individual contribution together with team performance and goals
- continuous talent search from within the organization to provide avenues for growth and development
- flexible managers who have an international perspective
  managers who will act as a catalyst for organizational change and continuous improvement towards excellence.

MANPOWER STRENGTH : MANEJA

Management Staff :	326
Non Management Staff :	273
Workmen :	674

LARSEN & TOUBRO LIMITED, BARODA & HAZIRA:

Larsen & Toubro Limited - a construction, engineering and cement major - is among the largest and most reputed companies in India's private sector. Its reputation is based on a strong customer orientation, the technological sophistication that characterizes its products and projects, and an impressive record of achievements over six decades.

L&T has initiated a transformation process to ensure that it emerges as a knowledge-based premium conglomerate in the shortest possible time. Its portfolio consists of an Engineering core, and Thrust areas - Cement, Information Technology and Communications. The Engineering core compromises Engineering & Construction Projects, Construction, Heavy Engineering and Electrical & Electronics. L&T has achieved dominant domestic leadership in each of these industrial and infra - structure related businesses - where technology, innovation and process know-how are critical success factors.

L&T is India's cement leader, with over 15 million tonnes per year of installed capacity. Each of its plants incorporates state-of-the-art technology. L&T Cement has a strong brand equity and commands a price premium in most markets due to its consistency in making high quality products. In IT, L&T's fully-owned IT subsidiary, L&T Information Technology Limited, has identified five thrust areas for the global market place - financial services, manufacturing, services, communication and utilities - with a common e-commerce and ERP focus.

L&T's employment policies and systems radiate from a single principle - we believe in people. People are our most valued asset - our core strength. We have, therefore, created a 'climate' which is distinctive in industry. Employees gain a level of freedom which provides security, satisfaction and, most importantly, a sense of professional fulfillment.

At L&T, learning is a continuous process. Our Human Resources Development Department offers training programmes for employees right through their career. A good blend of skill development, behavioural and core programmes provide stimulus for growth and career development. Courses are designed to keep employees in touch with the latest trends in management. Emphasis is laid on creativity, innovation, achievement motivation for excellence, empowerment, augmenting communication and interpersonal skills, developing initiative and leadership qualities and providing knowledge of computer applications. The compensation package offered by L&T compares favourably with respective industries in which we operate. L&T's accelerated growth opens up an array of employment opportunities for professionals at various levels. We seek achievers with an excellent track record.

GUJARAT INDUSTRIAL POWER CORPORATION LIMITED, BARODA:

Generating power for industry is something a number of companies do. So what puts GIPCL apart from the rest ? Our manner of functioning. We have tried to rewrite the script of power generation in our own limited way.

It was in 1985 that 4 companies came together to promote this venture. They were -

- *Gujarat State Fertilizers & Chemicals Ltd. (GSFC)*
- *Gujarat Alkalies and Chemicals Ltd.*
- *Gujarat Electricity Board*
- *Petrofils Co-operative Ltd.*
- *Subsequently GAIL joined for their Captive need at Waghodia*

The participating industries were allocated power on an equity based formula in terms of MoU executed inters, at highly economical rates. The advantage of this was evident in the first year itself since apart from insulating themselves from the uncertainties of the power supply, their savings in power bills and increase in productivity will equal their capital investment!

CORE VALUES:

1. Integrity & commitment to work is our fundamental principle. We sincerely believe in transparency of our actions.
2. We constantly strive for excellence in all our endeavours.
3. Our people is our most valuable asset. We attach great importance to their continuous up-gradation & development.

CORE PURPOSE:

The very purpose of our existence is:

- Power Generation and to strive for continually higher levels of excellence
- Thirst to be recognized as a reliable power producer.
- To supply power at economic price and there lay contribute to the infrastructural development of the State and the Nation

In the next 2 to 3 years the company's immediate goals would be

a) To achieve and sustain 95% Plant Availability Factor in all the plants (555MW).
b) To achieve significant improvement in operating parameters.
c) To improve profitability and increased Economic Value Addition (EVA) by having cost effectiveness in all areas.
d) To go march ahead on expansion plans without any dilution in equity. To streamline Human Resource activities.

Vision Statement:

We, at GIPCL, have a dream. To grow and to excel. We believe that relentless pursuit of growth and excellence will transform our enterprise into

a leading national power sector company. With our vision focused on power generation, we will also build significant presence in related power sector services.

- Our pursuit of growth and excellence will reflect total commitment to environment and society. We have a winning team. We will reinforce our winning strengths and winning attitudes at GIPCL.
- Our strengths will be enhanced in terms of technological edge, people and sharp focus on efficiency and quality in all areas.
- Together we will make it happen and make our dream come true

Mission Statement:

GIPCL's mission is to emerge as a formidable power sector enterprise in India, delivering reliable power at a competitive price. We aim to become a 2010 MW company by 2010 AD. To realize our mission, we will strengthen our organizational practices, which can be benchmarked with the best professional and technological practices internationally. Our mission encompasses strong stake holder relationships. These will be reflected in:

- Enhancing shareholder value
- Developing our people to perform at their fullest potential
- Providing price advantage to our customers
- Encouraging environment friendly attitudes and concern for society

GIPCL believes that adherence to following basic qualities have contributed to its remarkable success :

- *A HIGH LEVEL OF EFFICIENCY; DEVOTION TO JOB & INTEGRITY :* Perhaps the most basic requirement for the success of any venture. No substitutes for old-fashioned hard work and sincerity.
- COST CONSCIOUSNESS: The emphasis is not on merely reducing costs but on effective cost management.
- OPEN, TRANSPARENT AND INFORMAL COMMUNICATION & EASY ACCESSIBILITY TO TOP MANAGEMENT : It is important that views of

any employee irrespective of position and hierarchy be heard to ensure satisfaction and smooth functioning.

- STRONG BOND WITH COMPANY : Creation of a strong sense of belongingness to the company depends on the success of the former.
- A PROFESSIONAL APPROACH

People:

Human resource is the vital component that has taken the Company to these heights and the employees are the most valuable assets of the company. Human Resource activities at a glance:

1. Performance review and feedback preceded by organizational and departmental Key Result Areas up to the level of Managerial Personnel.
2. Unique ways of respecting and acknowledging contribution of individual employees :

- No workman category. No workers, only partners. Everyone including M.D wears the same uniform.
- Hence respect and pride held for highly skilled/ technically qualified personnel to be a part of GIPCL family.
- Employee of the year award and special awards - No hierarchical bars for the consideration of awards.
- Long service appreciation awards for those whose association with Company is since last 10 years or more. A true recognition to those have chosen to be with the Company and been the partners in the consistent growth of the Company.
- Open door atmosphere-easy accessibility and opportunities for sharing views/ideas with the top team.
- Celebration of annual cultural programs of the company on 26th January, involving all employees and their family members.
- A complete in-house celebration like display of employees talent, sense of belonging with fraternity and pride for being a part of GIPCL.

3. Scientifically planned training needs, continuous analysis covering KAS-Knowledge/ Attitudes/ Skills aspects of individual development growth at all levels in the organization. The present day planning concepts of preparation of VISION & MISSION - CORE VALUES for the company as well as using efficiency review tools like BENCHMARKING are introduced.

The experience rich experienced team at Baroda comprises 192, out of which 75 are executives and 120 are non-executives, while the team at the Surat Lignite Power Plant (SLPP) comprises 152 team members, out which 87 are executives and 65 are non-executives.

GUJARAT GLASS (P) LIMITED, KOSAMBA, SURAT:

The 100 billion rupee Indian market for packaging material (of which 9 billion is glass containers) has witnessed the emergence of a company, Gujarat Glass (P) Limited (GGL) that has been extremely successful through a strategy of being "totally fixated" on the needs and expectations of the customer. Gujarat Glass (P) Limited is a leading manufacturer of glass packaging for pharmaceutical and cosmetic products. A dynamic venture of Piramal Enterprises, Gujarat Glass was acquired in 1984. In 1990-91, the company was merged into Nicholas Piramal India Limited, a major pharmaceutical company of the group. In 1998, Gujarat Glass was formed as an independent subsidiary of Nicholas Piramal, with 54% of the shareholding with Nicholas Piramal and 46% held by a consortium of international investors.

Since the time Gujarat Glass was acquired, its products were strategically for the healthcare industry, unlike other glass companies catering to diverse industries. Gujarat Glass has focused on being the leading provider of "flaconnage" (glass containers for the quality conscious pharmaceutical and cosmetics industries). With a compounded annual sales growth of over 35%, GGL enjoys a leadership position in the niche pharmaceutical packaging

segment that it operates in. Its market share has jumped from about 20% a few years ago to over 40%. GGL is the only company in India and one of the few in the world who manufacture and market the entire pharma range of glass bottles and vials (amber and flint, bottles and vials, sodalime and borosilicate).

Our infrastructure:

GGL has invested extensively in modern manufacturing facilities. The company has 3 manufacturing facilities - in Kosamba, near Surat, about 300 kms. northwest of Mumbai, Jambusar near Baroda, about 100kms beyond Kosamba, and at Ratmalana, in Sri Lanka.

Our Jambusar plant is the world's largest pharma amber bottles manufacturing plant at a single location. In all, the 7 furnaces of the company with 27 automatic production lines, many of which are electronically controlled state-of-the-art machines, produces 7 million glass bottles and vials every day throughout the year for quality conscious customers in the healthcare and cosmetics industry. Power is an important input in glass manufacturing. To ensure regular and high quality power supplies, Gujarat Glass has two natural gas based captive power plants at Kosamba and Jambusar to meet its power requirements.

Total Quality Management:

In its various business processes, Gujarat Glass has imbibed all the elements of a systematic approach to excellence in results.

Gujarat Glass is the first in our industry to receive ISO-9002 certification from the internationally recognized Bureau Veritas Quality International (BVQI) in 1996, and was re-certified for continued adherence in 1999. The company is also the first and only one in our industry to attain the ISO-14001 certification for the Jambusar location. Gujarat Glass has been extremely TQM-focused and has invested extensively in people development and information technology. The ERP system in use is MFG-PRO and aims at

bring in increased efficiencies in the various business processes. Very recently, a major B-to-B initiative has been the enabling of transactions between Gujarat Glass and its customers through our website (gujaratglass.com), with the launch of our application: "cyberglassmart". All this is towards enabling us to provide speedy, prompt and better service.

Gujarat Glass has been the proud recipient of the Best Vendor Award in packaging from the Organization of Pharmaceutical Products of India (OPPI) for two years in succession (1996 and 1997), leading it closer to becoming the most admired packaging company in India. OPPI rules prevented two-year-consecutive award winners from being rated for 2 subsequent years. After a forced gap of two years, Gujarat Glass has, once again, been rated Best Vendor in packaging for the year 2000. While internally conducted regular customer satisfaction studies rate Gujarat Glass as superior to others in the industry, a recent study conducted by Gallup MBA India Pvt. Ltd. rated Gujarat Glass as a company with an admirable customer satisfaction index. Ratings for Gujarat Glass on various parameters were as high or even higher than those obtained by various companies from the hundreds of studies conducted by Gallup. Gujarat Glass's strong relationship with the customer, leading to high levels of delight, as measured by Gallup has been commended by them, and is seen as an example of strong barrier through customer orientation.

Gujarat Glass has been relentlessly striving to raise the standards of our performance on the quality front. Working together with many pharmaceutical companies has, indeed, helped us. In some cases, the task forces formed jointly by customers and Gujarat Glass, have led to significantly better performance where objectives were set. Gujarat Glass focuses on the just-in-time concept to ensure that customers do not have to hold huge inventories. Warehousing facilities at our plants and elsewhere are ample evidence of this desire of Gujarat Glass to lower customers' inventory carrying cost.

Future Outlook:

Gujarat Glass seeks to further strengthen its leadership in the domestic market. The company is keen to increase its shares with existing customers and looks forward eagerly to new business. There is also a major thrust planned on the exports front to tap the huge potential that exists in the international market. Gujarat Glass seeks to consistently meet and exceed the needs and expectations of its quality conscious customers in India and around the world.

JCT ELECTRONICS LIMITED, BARODA:

JCT Electronics Limited is a flagship company of the **Thapar Group**, one of India's largest Industrial Conglomerates. Founded in the 1920's, the Thapar Group with 54 companies and 84 manufacturing plants is growing at the rate of more than 25% each year and has a Group turnover of more than US $1.3 billion. The Thapar Group has grown through four prominent companies:

JCT Limited **Ballarpur Industries Limited**

Crompton Greaves Limited **Greaves Limited.**

The Group has diverse industrial interests spanning Paper, Chemicals, Man-made Fibres, Glass, Electricals, Textiles, Electronics, Shipping, Hydel Power etc. The Group has collaborations with the following major companies:

David Brown Zimmer AG Hitachi OKI Electrical Corning Mitsubishi General Electric Westinghouse.

JCT Electronics Limited was the first CPT manufacturer in India. JCTEL, formerly known as Punjab Display Devices Limited (PDDL), was set-up as a wholly owned subsidiary of Punjab State Industrial Development Corporation (PSIDC) in 1976, to manufacture Black & White Picture Tubes, Cathode Ray Tubes, Gas filled Discharge Tubes and Fluorescent Display Tubes at S.A.S. Nagar - Mohali, Punjab, India.

PDDL was taken over by JCT Ltd. in 1986, a flagship Thapar Group company, in a diversification project to manufacture CPT's. The plant was modernized to manufacture standard CPT's having a installed capacity of 0.6 million in technical collaboration with Hitachi, Japan. In 1996, JCTEL went in for an expansion and set-up a new plant at Karjan (near Baroda, India) engineered in-house with Hitachi's assistance, to manufacture an additional 1 million CPT's of sizes 14", 20" Conventional and 21" F&FST.

Turnover:

JCTEL's Production turnover in the recent past has been:

Year	Production
1996 - 1997	0.68 million
1997 - 1998	0.694 million

JCTEL's Sales turnover during the financial year 1997-1998 was US $63.13 million. JCTEL is very focused on customer service and continuously undertakes improvement in the quality of products and services. In recognition of its quality policies JCTEL has been awarded the following quality certifications:

ISO 9002 from BSI (UK) VDE (Germany) STQC (India) JQA (Japan)

JCTEL is also a member of ELCINA, ELMINA, CETMA, MAIT and other leading industry associations.

New Markets:

JCTEL's picture tubes have been accepted worldwide. The company has started exports to South Africa, countries in the Far East (Singapore, Malaysia, HongKong etc.), East European countries (Czech Republic, Slovenia, Romania etc.), Russia, Egypt, Iran, Pakistan, etc. The company has plans to enhance capacity of existing products, broaden the product range to include larger CPT's and to undertake manufacture of Cathode Display Tube(CDT) for computers.

MIRANDA AMSAW / TOOLS, ANKLESHWAR:

Miranda Tools has for long been # 1 Indian manufacturer of cutting tools. It was the first Indian company manufacturing HSS cutting tools, to be awarded BS EN ISO 9002 certificate of approval by BVQI in 1994. The Saw division of Miranda Tools had joined hands with leading saw manufacturer in the world, viz American Saw & Mfg. Co. International, USA - makers of the famous Lenox brand of Saws. The Joint venture company - Miranda Amsaw Ltd., provided the best in saw products along with the best in service. The Company since 2001 is fully owned by American Saw & Mfg. Co. International, USA. Our aim is to provide to our customer - Quality Products & Quality Service.

QUALITY ASSURANCE : A CORE COMPETENCY:

Quality Assurance is our core competency. Our quality system is certified to ISO-9002 standard for HSS Hacksaw blades and metal cutting bandsaw blades. Our dynamic quality system covers all manufacturing and other related processes. Quality is controlled through a series of stage and patrol inspections by a band of qualified and dedicated inspectors.

Product Specification for Saws:

- Hand Hacksaw Blades - (All Hard and Bi-metal)
- Power Hacksaw Blades - (All Hard)
- Metal Cutting (Carbon) Bandsaw Blade
- Bi - metal Bandsaw Blades
- High Tension Hand Hacksaw Frame

OUR VALUES:

In our pursuit of excellence and growth, we shall act as TRUSTEES for our CUSTOMER, EMPLOYEES, SHAREHOLDERS and SOCIETY by,

- Continually enhancing value for our customers with quality products and services to meet their changing needs.

- Empowering our employees, encouraging innovation and entrepreneurship in an environment, which makes work fun.
- Steadily building wealth for our Shareholders.
- Contributing to the well being of Society and the environment.

WE SHALL MAKE INNOVATION AND CHANGE A WAY OF LIFE AT ALL TIMES AND CONDUCT OURSELVES WITH HONESTY, FAIRNESS AND TRUST IN GOD.

QUALITY POLICY:

It is our policy to :

- Provide Quality Products and Support that Consistently satisfy Customer Requirements And
- Achieve a preferred status in the market through continuous improvement and innovation.

PIRAMAL ENTERPRISES LIMITED (PEL) is one of the fastest growing business groups in India with operations in Textile, Health Care, Glass Containers, Auto Ancillaries, Hard Ferrites, Retailing, Cutting Tools, Industrial Accessories, Consumables and Others. The Group is headquartered in Mumbai (Bombay) in the office of MORARJEE GOCULDAS Spg. & Wvg. Co. Ltd., which was established in 1871 and it is the oldest company registered on Bombay Stock exchange, still in operation. The Group has manufacturing facilities spread over 18 locations across 5 states in India and Branch offices in almost all states of India.

KILBURN ENGINEERING LIMITED, BARODA:

Kilburn Engineering Ltd. is an associate Company of Williamson Magor Ltd., Which is one of the 20 large Groups operating in India. We are a specialist Group operating in areas of process design, engineering, manufacture installation and commissioning of turnkey plants / systems catering to industries such as petrochemical, chemical, fertilizers, refineries, oil and gas, food processing, etc. We have manufacturing facilities at Vadodara and Mumbai, equipped with state of the art machinery. The total strength of

Kilburn Engineering currently comprises 650 personnel, of which 250 are qualified engineers. We have qualified and experienced engineers in mechanical, chemical, electrical, electronics, metallurgy, instrumentation, aeronautics and other engineering disciplines.

QUALITY POLICY:

We shall strive for customer satisfaction by supplying innovative, reliable & quality products, systems and services confirming to clearly established customer requirements. We shall provide an environment to encourage commitment, teamwork and continuous improvement of our products and personnel to do everything right the first time, every time.

TECHNICAL COLLABORATIONS:

- Nara Machinery Company Ltd., Japan (for Flash, Paddle and Fluid Bed Dryers).
- Carrier Vibrating Equipment co. U.S.A. (for Vibratory Fluidised Bed Dryers, Conveyors & Feeders).
- Proctor & Schwartz Inc. U.S.A. (for Band Drying systems).
- Silica Verfahrenstechnik GmbH, Germany (for Adsorption based Drying/Separation Systems).
- YUBA Inc. U.S.A. (for Feed Water Heaters).

JOINTVENTURES:

VECO KILBURN LTD.

TECHNICAL ALLIANCES:

- Bertrams Ltd. Switzerland (for Caustic Soda Plants).
- Baker Hughes Ltd., U.K.(Process Systems Division) (for Test Seperators, Injection Water Filtration System and Tilted Plate Interceptors).
- Petrolite U.S.A., (for Crude Oil Desalters).
- Chemieanlagenbau Stassfurt AG, Germany. (for Soda Ash Calciners).

- Tecmeca, France (for Rail Road and Marine Loading Arms).
- Beltec USA. (for Electro Static precipitators).

CAPABILITIES:

Our Basic Strength lies in process design, detail engineering, Project Management, Fabrication to national & international codes. (such as ASME, DIN, BS, ISI, etc.) erection & commissioning. We Fabricate equipments in Stainless Steel, Carbon Steel, Nickel & special alloys such as inconel, incolloy, monel, duplex steel etc. These capabilities are summarized in one of our most prestigious contract i.e. supply of 300 TPD caustic Soda concentration & Prilling cum Flaking Plant to M/s. IPCL on Turnkey Basis. A 386 MTPD Evaporator, 200 MTPD Concentration / Prilling, 100 MTPD Flaking Plant for (GACL) Gujarat Alkalies & Chemicals Ltd. (a large public sector enterprise) at Bharuch, Gujarat.

EXPORTS:

We export about 15% of our turn over to 26 different countries world wide such as China, Japan, Korea, Taiwan, Malaysia, Singapore, Saudi Arabia, Holland, Italy, Dubai, etc. We have excellent track record for meeting our delivery commitments well ahead of agreed schedules. We have exported the World's second largest Fluid Bed Drying System for 100,000 tons of suspension grade PVC to Saudi Arabia (Sabic Group). We have also supplied desiccant based drying systems for Gas/Liquid and H_2S adsorption system to M/s. IbhZahr, Saudi Arabia (Sabic Group). We have exported Oil Field Equipment to South Korea for their ship building yards. We have exported Rotary Coolers for Caustic Prills to China and Saudi Arabia. We are market leaders and exporters of Dryers for Tea & Desiccated Coconut.

TEXTILE INDUSTRIES

Structure of the Industry:

The Indian textile Industry has a complex structure. On one hand it is marked by the presence of large-scale production organized players, while on the other hand are the numerous small scale independent units. The growth of the small-scale independent unit was backed by the middlemen in the textile fabric trade. Traditionally textiles have had a long chain of distribution with various intermediaries like the Wholesalers, Distributors, Agents, etc. These intermediaries were the marketing arms of the mills and played a major role in maintaining contact with the final customer, the retailer. With the mills being manufacturing oriented, lost all contact with the final customer and the intermediary became all-powerful. The intermediaries in order to sustain their businesses resorted to buying from the independent units.

In addition the growth of garment exports from India, led to a demand for made to order fabrics, often in short runs. Thus the garment exporters/middlemen started approaching these independent units with their own designs. Doing business with the independent units gave the garment manufacturer a higher degree of flexibility. Fragmentation in the industry, per se, is not bad. Rather it has positives attached to it like check of price rise for consumers, possibilities of running smaller lots. However, the negatives far outweigh the positives, in the Indian context. Small size does not present economies of scale and hence reduces the absolute margin available that could have been used into technological advancement, research and development and brand building. The Indian textile industry is one of the largest segments of the Indian economy accounting for over one-fifth of the total industrial production. The industry has a complex structure marked by presence of large scale production units as well as small scale independent units. The industry is manufacturer driven with spinning having large scale operations and the retailing as the weakest link.

The Spinning Industry:

- India is the third largest producer of cotton in the world and also has a strong production base for synthetic fibres.
- The Indian spinning industry is dominated by cotton yarn which also accounts for 80% of total value of yarn exports.
- With an installed capacity of 37 Mn. spindles, India accounts for about 20% of the world's spindle capacity.

The Weaving & Knitting Industry:

- The fabric production industry can be divided into 3 sectors viz. Power loom, handloom and mill sector
- The decentralized sector accounts for 95% of the total cloth production
- The knitted fabric forms 18% of the total fabric production
- Despite the largest loom age in the world, India's share in shuttle-less looms is only 1.35 %

The Indian Fabric Processing Industry:

- Processing is the weakest link in India's entire textile chain
- The processing industry is decentralized and is marked by hand processing units, independent units and the composite mill sector
- Indian processing industry has deployed low end technology with little investment initiative in technology up gradation
- The Indian processing industry lacks R&D and innovation

The Garment Manufacturing Sector:

- The apparel industry is the largest foreign exchange earner accounting for 12% of India's exports
- Small scale fabricators dominate the garment manufacturing sector
- Most of the manufacturing units are medium technology level

TABLE : 3 TEXTILE INDUSTRY - OVERVIEW

TEXTILE INDUSTRY - OVERVIEW						
ITEM	UNIT	95-96	96-97	97-98	98-99	1999 - 2000
						(A)
Cotton/man-Made fibre	No.	1569	1719	1782	1824	1850
Textile Mills						
Spinning Mills(Non-SSI)	No.	1294	1438	1504	1543	1566
Composite Mills(Non-SSI)	No.	275	281	278	281	284
Spinning Mills(SSI)	No.	750	795	861	901	920
Exclusive Weaving Mills (Non-SSI)	No.	172	176	187	199	200
Powerloom Units (Year end)	No.	333017	349380	357943	393202	400000
Capacity Installed						
Spindles (SSI + Non SSI)	Million No.	31.75	34.59	35.39	36.67	37
Rolors(SSI + Non SSI)	Thousand	226	300	339	434	450
	No.					
Looms (Organised Sector)	Thousand	148	140	140	140	140
	No.					
Powerloom (Year end)	Thousand	1412	1523	1595	1620	1650
	No.					
Handloom	Thousand	3891	3891	3891	3891	3891
	No.					
Man-Made Fibres	Million Kg	602	792	1008	1064	1225
Man-Made Filament	Million Kg	620	680	888	1033	1188
Worsted Spindles (Woollen)	Thousand	518	518	563	575	583
	No.					
Non-Worsted Spindles (Woollen)	Thousand	317	317	406	412	417
	No.					
Production of Fibres						
Raw Cotton*	Lakh bales	170.2	177.9	158	163	175
Manmade Fibre	Million Kg	498	588	708	782	848
Raw Wool	Million Kg	41.41	43.29	44.74	45.46	46
Raw Silk	Million Kg	13.91	14.13	15.24	15.54	15.84
Production of Yarn						
Cotton Yarn	Million Kg	1894	2148	2213	2022	2205
Other Spun Yarn	Million Kg	591	646	760	786	815
Manmade Filament Yarn	Million Kg	493	602	769	850	861
Fabric Production						
Cotton	Million	18900	19841	19992	17948	18390
	Sr.Mtr.					
Blended	Million	4025	4025	5751	5700	5624
	Sr.Mtr.					
100% Non-Cotton (Including Khadi,	Million	9033	10109	11698	12454	14420
Wool and Silk)	Sr.Mtr.					
TOTAL		31958	34838	37441	36102	38434

Per Capita availability of Cloth	Sr.Mtr.	27.99	29.3	30.92	28.19	30.55
Production of Textile Machinery	Million US$	450.95	365.39	404.29	269.94	223.9
Textile Exports & Imports Handicraft	Million US$	10676	11839	12342	12559	13325
Imports	Million US$	952	765	824	840	1052
Source: 1. Textile Commisioner Office						
2. Export Promotion Councils						

Box 6
National Textile Policy 2000 – Important Targets.

- Raise the target of textile and apparel exports from the present level of US$ 11 billion to US$ 50 million by 2010 of which the share of garments will be US$ 25 billion.
- Implement in a time bound manner, the Technology Up gradation Fund Scheme (TUFS) covering all manufacturing segments of the textile industry.
- Achieve increase in cotton crop productivity by at least 50 per cent and upgrade its quality to international standards, through effective implementation of the Technology Mission on Cotton.
- Launch the Technology Mission on Jute to increase productivity and diversify the use of this environment friendly fibre.
- Assist the private sector to set up specialized financial arrangements to fund the diverse needs of the textile industry.
- Set up a Venture Capital Fund for tapping knowledge based entrepreneurs of the industry.
- Encourage the private sector to set up world class, environment-friendly, integrated textile complexes and textile processing units in different parts of the country.
- De-reserve the Garment industry from the Small Scale Sector.
- Strengthen and encourage the handloom industry to produce value added items and assist the industry to forge joint ventures to secure global markets.
- Re-design and revamp, during the X-Five Year Plan, the Schemes and Programmes initiated in the handloom, sericulture, handicrafts and jute sector to ensure better returns for those belonging to the disadvantaged categories, and the North East and other backward regions of the country.
- Facilitate the growth and strengthen HRD Institutions including NIFT (National Institute of Fashion Technology) on innovative lines.
- Review and revitalize the working of the TRAs (Textiles Research Associations) to focus research on industry needs. And
- Transform, right size and professionalise all field organizations under the Ministry of Textiles to enable them to play the role of facilitators of change and growth.

Source: Indian Economic Survey, 2000-01, Aakalank Publications.

VARDHMAN INDUSTRIES LIMITED, JHAGADIA, ANKLESHWAR:

- Employees in Vardhman are its most valuable resource and development of business and of employees must go hand in hand.
- Every employee is special and unique in his own field and has infinite potential to make contribution to the organization.
- Merit is the most important criteria for recruitment and reward.
- Creativity and innovation in technology and management through our people is our competitive edge.
- HR processes facilitate consistent improvement in performance, productivity and effectiveness through mutually agreed stretched targets.
- Continuously strive to improve quality of work-life for total job satisfaction and social harmony for the employees.
- HR prepares people to accept and adapt to change and learning as a way of life.
- HR promotes high standards of discipline at the workplace and compliance with the laws of the land.
- Prepares youth for executive role in business as a major social responsibility.

Vardhman is a major integrated textile producer in India. The Group was setup in 1962 at Ludhiana, Northern India. Since then, the Group has expanded manifold and is today, perhaps, the largest textile conglomerate in India. The Group recorded a turnover of Rs.1906 crores ($400 million) in 2001-02. The Group portfolio includes manufacturing and marketing of Yarns, Fabrics, Sewing Threads, Fibre and Alloy Steel.

ADANI EXPORTS LIMITED, (TEXTILES DIVISION), AHEMEDABAD:

Adani, being an export trading house, witnessed a decline in its revenues on account of slowdown in the international markets. However the company was able to increase profits primarily due to lower purchase of finished goods. However now with a pick up in the export market Adani's revenues are likely

to improve. This is clearly reflected in Adani's H1 FY2000 performance wherein the revenues increased by 18%.

Adani ranks amongst the largest and the fastest growing business houses in India. The Adani group has taken an aggressive stance of strategic forward and backward integration. The management is also keen on becoming a US$ 1.4 Billion Integrated Global Trading House by FY2000. A revival in the export market fuelled a rally in the company's stock.

The scrip after lying low at Rs200 was on a continuous up trend till it touched Rs900 from where it retracted and has settled at Rs750. At the current price the stock is trading at a P/E of 12x FY99 earnings. The outlook on the export front is encouraging given the improvement in the S E Asian economies. The company being one of the leading exporters of goods and services in the country should greatly benefit from developments on the export front. The scrip therefore will continue to remain in the limelight.

MODERN PETROFILS LIMITED, BARODA:

Modern Petrofils [MPF] is part of Modern Group established in 1994 in technical collaboration with Zimmer AG of Germany. It is the first fully integrated Poly to Texturised Yarn unit in India, It has manufacturing facilities to produce:

Name of Product	Qty. in MT./Day
Polymerization	180
Polyester Chips	80
POY	117
Draw Texturising	40
Dyeing	10

The above capacity makes MPF as 3rd largest manufacturer in India. The state of art texturising machines manufactured by Himson under technical collaboration of Rieter Scragg makes the unit first of its kind to

produce 160 filament micro denier yarn in the country. The product acceptance of MPF is widely acclaimed and as a result of which 60% of its production is exported and remaining has established domestic market.

The Modern Group since its inception in 1973 has constantly developed its core competence in textile industry and progressively strengthen its presence in all the segments of the industry. It's activities are segmented into five listed companies and eight manufacturing units. A broad view of these units are given below :-

Sr. No.	**Name of Listed Co.**	**Manufacturing Unit**	**Technological Alliance with.**	**Product**
1.	Modern Syntex (I) Ltd.	Yarn Division Suiting Division Petrofils Division (3rd. largest in India)	 Zimmer AG, Germany	Blended Yarn Synthetic Suitings Polyester Yarns
2.	Modern Threads (I) Ltd.	Thread Division Woollen Division (one of largest plant in India) Petrochemical Division (proposed)	 Dow Chemicals Co. USA for PTA & UOP I.A. USA for Px	Blended Yarn Carpet and Wrosted Yarn Paraxylene & PTA

3.	Modern Insulators Ltd.	Insulators Division (one of its kind in India)	Siemens AG, Germany.	EHV Insulator
4.	Modern Terry Towels Ltd.	Terry Towels Division (One of the largest integrated plant)	Courtaulds, UK.	Terry Towels
5.	Modern Denim Ltd.	Denim Division (2nd. largest in India)	Tencate Group, Holland.	Indigo Denim

Source : CII

A vivid overview of above reveals that Modern Group is a multi product diversified textile group with assets base of Rs. 1562 crores (net). Each plant has been built to a global scale of operations for achieving optimum economies and international compatible qualities, which is reflected in the steady growth of exports year by year.

Baring last two severe recessionary years for industry in general and textiles in particular, group has unbroken record of profit till 1997 and remained dividend paying till 1997.

KUSTER CALICO LIMITED, BARODA:

We at Kuster Calico part of Shivalik Global Limited, a vertically integrated plant, are dedicated to provide competitively unique and quality products to our buyers and consumers while maintaining our integrity , honesty and loyalty to our employees.

We believe that the success of our business depends upon the success of our employees within the organization. To ensure this success, we have created

a workplace where people with ideals, perspectives and skills can experience leadership through high potential . Leadership is the result of team work allowing issues and ideas to be developed , widening our competitive advantage. We are confident that as we expand, we will attain our strategic goal of becoming one of the finest vertical integrated garment producers in the region.

Kuster Calico Limited is a professionally managed group and attracts best of talent from all over the country and is poised to carve a special niche for itself in export industry in India . Besides its own manufacturing for direct exports, Kuster Calico Limited is also acknowledged as leading process function jobbers and value adders for the largest exporters of textile from India.