MANUFACTURING AND MINING

3.1 Introduction

The overall manufacturing sector continued on its strong positive trend during the current fiscal year. Overall manufacturing recorded an impressive and broad based growth of 8.45 percent, against last year's growth of 9.9 percent. Large-scale manufacturing, accounting for 69.5 percent of overall manufacturing registered an impressive growth of 8.75 percent in the current fiscal year 2006-07 against last year's achievement of 10.68 percent. There has been a slight decline in growth in the manufacturing sector due to multiple reasons like reduced production of cotton crop, sugar shortage, steel and iron problems and the last but not the least global oil prices. All of these reasons contributed to reduced growth in 2006-07 but high levels of liquidity in the banking system, an investment friendly interest rate environment, a stable exchange rate, low inflation, comfortable foreign exchange reserves, stronger domestic demand for consumer durables and high business confidence among other things will again boost the manufacturing sector growth rate up to a reasonable level.

The main contributors to this impressive growth of 8.75 percent in July-April 2006-07 over last year are cotton cloth (7.0 percent) and cotton yarn (11.9 percent) in the textile group; cooking oil (6.8 percent), sugar (19.6 percent) and cigarettes (4.14 percent) in the food, beverages and tobacco groups; cement (21.11 percent) in the non-metallic mineral products group and Jeeps & Car (3.0 percent), LCV's (17.04 percent), motorcycles/scooters (12.30 percent) and tractors (11.40 percent) in the automobile group. The

individual items exhibiting negative growth include; both nitrogenous and phosphatic fertilizers (0.08 percent and 3.10 percent), petroleum products (5.59 percent) and galenicals (24.49 percent).

According to statistics T.V sets has shown a marked decrease by posting a negative growth of 39.09 percent during the year under review. Similarly, production in 42 reporting units comprising of printing, writing packing, paper board and chip board units declined by 1.54 percent during July -April 2006-07. The shortage of raw material such as wheat, straw etc. is the basic reason of this lull in production. Whereas the production of buses in the country has increased from a negative 53.18 percent during the last fiscal year to a healthy 21.28 percent in FY07 (see Table 3.1)

During the period July-April 2006-07 automobile industry recorded some what subdued growth in assembling/manufacturing business. The production of cars increased by 3.0 percent, LCVs 17.04 percent, Tractors 11.4 percent, buses 21.2 percent and motorcycles 12.3 percent. On the other hand, during the same period, negative growth rate was recorded for trucks (2.4%). Similarly, production of bicycles has also declined by 16.5 percent. Few of the reasons for this decline may be that manufacturers of Sohrab Cycles have slowed down due to labour problems and another unit has shifted to auto-parts manufacturing. In addition, there is also less demand for locally produced cycles, whereas imported cycles are more in demand in the country.

Item	Units			July-April		
nem	Units	2004-05	2005-06	2005-06	2006-07	% Change
Cotton Yarn	000 tonnes	2280.6	2546.5	2115.8	2369.3	11.9
Cotton Cloth	Mln.Sq. Mtr	924.7	930.3	745.7	797.8	7.0
Sugar	000 tons	3116	2960.0	2941.1	3517.5	19.6
Nitrogenous Fertilizer	000 N. tons	2315.4	2411.8	1991.3	1989.8	(0.08)
Phosphatic Fertilizer	000 N. tons	393.3	415.1	341.8	331.2	(3.10)
Soap & Detergent	000 tonnes	209.2	242.6	199.4	207.8	4.2
Vegetable Ghee	000 tonnes	1048.3	1146.4	969.4	984.1	1.52
Cooking Oil	000 tonnes	226.2	256.5	209.8	224.2	6.8
Cement	000 tonnes	16353	18483	15214	18426	21.11
Cigarettes	Billion Nos.	61.1	64.1	52.2	54.3	4.14
Jeep& Cars	Nos.	128381	163114	129754	133629	3.0
Tractors	Nos.	43746	49439	39745	44274	11.40
L.C.V	Nos.	23613	29581	23494	27498	17.04
Motorcycles/Scooters	Nos.	571145	744875	607084	681752	12.30
Bicycles	000 Nos.	587.9	587.1	498.9	416.6	(16.50)
Paper & Paper Board	000 tonnes.	420.6	476.2	394.9	388.8	(1.54)
T.V Sets	000 Nos.	908.8	966.4	799.6	487.0	(39.09)
Motor Tyres	000 Nos.	5366	5966	4787	5610	17.19
Billets	000 tonnes	2714.7	3508.1	2794.0	3106.3	11.18
Refrigerators	000 Nos.	784.6	861.6	658.2	722.7	9.80
Caustic Soda	000 tonnes	206.7	219.3	180.4	201.3	11.61

Table 3.1 Production of Selected	Industrial Items of Large-Scale
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Source: Federal Bureau of Statistics

3.2 Textile Related Industries

The Post Quota scenario has dramatically changed the global trade patterns. With the complete phaseout of quotas, the textile & clothing sector has been experiencing wide ranging changes. With the opening of world markets and increased global competition, there is a new focus required for textile companies to increase their success rate. The winning formula now is much more based on internal competences and performance than on political or trade issues.

This liberalization has been controversial because both textiles and clothing account for large shares employment developing of in countries. particularly in South Asia. The trade liberalization process is creating huge uncertainty among textile producing countries, workers and enterprises worldwide. It has increased fears and hopes in both importing and exporting countries. However, it is certain that some countries would benefit from the opening of markets, while others would encounter growing difficulties as a result of increased international competition. The magnitude of gains and losses is a matter of considerable debate. As a result of changing global buyers' strategies, there would be considerable consolidation of production, both between countries and within countries.

Many developing countries are highly dependent on textile and apparel exports, which often accounts for a significant share of their total industrial goods export and hence export earnings, creating a high degree of dependency on this sector. The developing countries including Pakistan are most prone to this dependence and are equally prone to sensitivity as global market is becoming highly competitive.

3.2.1 Textile Industry in Pakistan

Pakistan's textile industry ranks amongst the top in the world. Pakistan is world's fourth largest producer of cotton and the third largest consumer of the same. Cotton based textiles contribute over 60% to the total exports, accounts for 46% of the total manufacturing and provide employment to 38% manufacturing labor force. The availability of cheap labor and basic raw cotton as raw material for textile industry has played the principal role in the growth of the Cotton Textile Industry in Pakistan. With the advent of the quota free global

imperative for a rapidly developing country like Pakistan to further explore potential new markets both in its neighboring territories as well as distant ones. In this context, Pakistan has signed a Free Trade agreement (FTA) with China. This FTA is predicted to bring around \$5 billion increase in our trade volume with China which is going to consist mostly of textile related commodities. Economic analysts have already dubbed this pact as the Cotton Road to China. In order to fully avail the concessions under the agreement the Government is strongly committed to further strengthening the textile sector in the country. Pakistan's textile industry had proven its strength in global market during the last four decades. It has proved its strength even in post quota era (2005) by not only sustaining its position but also showing growth of 5% over 2005. However the Garment Sector especially the Knitwear Garment Sector needs special support.

The current scenario posses challenges firstly to sustain its global positioning and secondly to increase its market share by both increase in volume as well as increase in unit values. The unit value can be increased only through marked improvement in quality, market tie-up, image building and change in business philosophy. This requires upgradation in resource development both in manufacturing and marketing. The focus should be on R & D, technical innovation, product development on one hand and brand & market development on other with the goal of moving up in the global textile value chain.

The performance of textile industry during the last five years has been satisfactory. The market was responsive, the Government policy was supportive and inputs were viable. The industry made profits and re-invested in new machinery for balancing, modernizing, and restructuring (BMR) and expansion. The industry made an investment of approx. \$ 6.0 Billion during the period 1999-2006. Textile Machinery worth \$.0.8 billion has been imported during 2005-06 (see Table 3.8). The major investment has been made in spinning, weaving, Textile Processing and making up sectors. Approx. 454,000 new direct jobs have been created and industry has been able to make increase production and exports. Import of textile regime spear headed by the WTO it has become

machinery, which is the single largest item in the machinery group, accounted for \$ 771.500 million in 2005-06. This shows that investment for modernization of textile industry, which started four years ago, still continues. This resulted into substantial increase in capacities of all products. Consequently, yarn production has increased by 12% and cloth production by 7%. The exports showed positive improvements and cotton textile export grew from \$ 9.20 billion in 2004-05 to \$ 10.37 billion in 2005-06 and is expected to exceed \$12 billion in 2006-07.

With the broad focus on framework of a knowledge, technology and value-addition improvements, the Ministry of Textile (MINTEX) is striving hard to achieve the objectives of availability of high quality cotton, developing the entire textile value chain at par with international best practices, expanding the textile sector to produce value-added garments along with new innovative products, developing a state of the art infrastructure, augmenting investment in human resource management and enlarging our textile and clothing exports.

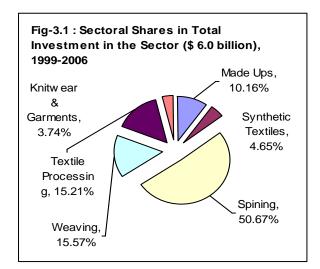
The Industry's market competitiveness is dependent to a considerable degree on the operating environment in Pakistan as shaped by factor costs, gas, human resource development (academic/vocational); marketing support; taxation and investment policies and infrastructure development. At the moment, a relatively small number of companies match international levels for quality however most companies are aiming to improve their competitiveness via cost and quality control in the changing market environment of today.

Table-3.2 : Import of Textile Machinery					
Year	Million US \$	% Change			
1999-2000	210.9	28.6			
2000-01	370.2	75.5			
2001-02	406.2	9.9			
2002-03	531.9	30.7			
2003-04	597.9	12.4			
2004-05	928.6	55.3			
2005-06	771.5	-17.0			
2006-07 (Jul-Mar)	427.8				
Total	4245.0				
	Source: Federal Bu	reau of Statistics			

Reforms in the Textile Sector

The Ministry of textile Industries (MINTEX) is currently in the process of implementing and finalizing various initiatives in the following areas: contamination-free cotton to cater to the demand of quality raw material for

the finished products; technological up-gradation at the ginning, weaving, processing and garment production level; product diversification and value-addition through better materials. accessories and design inputs; up gradation of the weaving sector with air jet and water jet looms along with zero rated duties; encouragement of integrated as well as horizontal garment industries on the basis of R&D and technological support for the garments sector; introduction of cotton hedge trading to promote marketing of cotton; testing facilities for increasing compliance and conformity assessment; and augmenting the institutional capacity in the field of research by setting up of R&D Cell within the Ministry.



In order to accelerate the growth of textile sector and to resolve issues of supply chain management and value addition, MINTEX has taken a number of proactive measures since its inspection. These include: *Pakistan Textile City Project*; The principal objective of the textile city is to develop and manage a state-of-the-art industrial zone on 1,250 acres dedicated to value added textile units in order to avail the opportunities arising out of the decision to remove of quota's applicable in the WTO Agreement on textile and clothing from January 2005. For this project 700 acres were acquired in the start of 2006 while remaining 550 acres were made available in January 2007. The Government also announced the setting up of three garment cities at Karachi, Lahore and Faisalabad under the Trade Policy 2003-04. The purpose of this projects is to provide facilities and necessary infrastructure to the textile sector with a view to promoting value added garments (woven and knitted), home textiles, made ups and accessories to the international markets. The EDF Board approved a sum of Rs.1.425 billion for the three garment cities. This project is expected to attract foreign investors who would be willing to rent state-of-the art manufacturing factory space rather than commit their capital in land, utilities and construction. It will also increase the proportion of value added products in textile exports, generate employment and lead to higher per capita productivity and reduced wastage because of in house training and laboratory testing facilities provided by the project. The Textile Garments Skill Development Board; was set up in October, 2005 and is primarily charged with carrying out skill development of workers for the garments industry within the garment units including the objectives of production of contamination-free cotton, project financing for small and medium entrepreneurs in high value added textile sectors, review of domestic and international prices of cotton to ensure a fair return to growers, maintaining stability in domestic prices and establishing liaison with all stakeholders from cotton growers to textile exporters for removing any bottlenecks in implementation of the recommendations. It is expected to train 10,000 - 12,000 stitching machine operators in these units in the span of just one year to build a critical mass of skilled workers. The scope of these training programs is to be widened to Terry Towel and Bed Lenin sectors during the current financial year. Presently, the training program is continuing in 30 units which are enrolling candidates in consecutive batches. Contamination of cotton is a very serious problem affecting the local spinning industry and the export of textile relatively. In order to tackle this problem, it was decided by the Government to launch the Clean Cotton Program in collaboration with Trading Corporation of Pakistan and Agriculture Departments, Provincial which included payment of premium at Rs. 50 per

mound to growers directly. The government had sanctioned an amount of Rs. 35 million for this purpose.

3.2.2 Ancillary Textile Industry

Textile production is comprised of cotton ginning, cotton yarn, cotton fabric, fabric processing (greydyed-printed), home textiles, towels, hosiery & knitwear and readymade garments. These components are being produced both in the largescale organized sector as well as in unorganized cottage / small & medium units. The performance of these various ancillary textile industries is evaluated below:-

i) Cotton Ginning Sector

Cotton is a natural fiber used primarily as a raw material for textiles. Leading producers of cotton include USA, China, India, Pakistan, Uzbekistan and Turkey. The current market share of cotton is 56 percent in all fibers. Textile fibers are divided into three basic types according to their sources such as Cotton Fiber, Man Made Fiber and Wool. In the last ten years, the percentage share of cotton has shrunk from 48% to 39% in the total world fiber consumption. Man-made fibers that include polyester, acrylic, nylon, rayon and viscose have taken more than 58 percent of the total share. Polyester has by far the largest share within the man-made fibers, which is more than 80 percent.

Ginning is the first mechanical process involved in the processing of cotton. Ginning is the process for separating lint from seed to cotton. The ginning industry has mushroomed in the cotton growing areas of Pakistan informally, without adequate regulations. There are 1,221 ginning factories in the country. Ginning industry has installed capacity of more than one million bales on a single shift basis and a total capacity of around 20 million bales on three shift bases, part of which lies unutilized.

ii) Cotton Spinning Sector

Spinning is the process of converting fibers into yarn. This is the first process of value chain that adds value to cotton converting ginned cotton into cotton yarn. If spinning industry produces sub-standard yarn, its effect goes right across the entire value chain.

Table 3.3: Installed and Used Capacity in WeavingSector(Nos.)					
Category	Installed Capacity	Effective/ Capacity Worked			
a) Integrated Textile	9322	4705			
Units					
b) Independent	27500	27000			
Weaving Units					
c) Power Loom Sector	295442	285442			
Total	332264	317147			
Source: Tex	tile Commissio	oner Organization.			

Pakistan has the third largest spinning capacity in Asia with a spinning capacity of 5% of the total world and 7.6% of the capacity in Asia. Pakistan's growth rate in this sector has been 6.2% per annum and is second only to Iran amongst the major players. At present, it comprises 500 textile units (50 composite units and 450 spinning units) with 9.3 million spindles and 136 thousand rotors in operation with capacity utilization of 82 percent and 65 percent respectively, by end March 2007.

iii) Weaving & Made-up Sector

The pattern of cloth production is different than spinning sector. There are three different sub-sectors in weaving viz, integrated, independent weaving units, and power loom units. Investment has taken place in shuttle less loom, both in integrated and independent weaving sector. Further investment in this sector will be forthcoming in the medium term. The Power Loom Sector has modernized and registered a phenomenal growth over the last two decades. The growth in power loom sector is to a larger extent a result of the government policies pursued this far as well as increased demand for the product. This sector is producing comparatively low value added grey cloth of mostly inferior quality. The problems of the Power Loom Sector revolve round access to credit facilities to modernize their equipment as well as purchase of yarn especially when the prices of yarn increase and the prices of cloth increase with a time lag.

There is a need for training facilities and guidance to diversify their products, especially to cater to the needs of the garment industry. However the performance of cloth sector remained far better than last year.

iv) Cotton Cloth

While the production of cloth in mill sector is reported, the same is not true with production of non-mill sector. Output of the non-mill sector is estimated although its output is seven times more than the mills sector. The production of cotton cloth had increased substantially. The production of cloth, both from mills and non-mills sector have registered an impressive growth of 8.69 percent during July-March 2006-07 (see Table 3.4). This sector showed growth and thus served as the main strength for down stream sectors like Bed wear – Made-up & Garments.

Category	2005-06 (Jul-Mar)	2006-07 (Jul-Mar)	% Change
Mill Sector	662.888	714.896	7.85
Non-Mill	5271.500	5735.438	8.80
Sector			
Total	5934.388	6450.334	8.69

v. Textile Down-Stream Industry

This is the most dynamic segment of textile industry. The major product groups are Towels, Tents & Canvas, Cotton Bags, Bed-Wear, Hosiery & Knitwear and Readymade Garments including Fashion Apparels.

a. Hosiery Industry

There are about 12,000 Knitting Machines spread all over the country. The Capacity utilization is approx 70%. There is greater reliance on the development of this industry as there is substantial value addition in the form of knitwear. Besides locally manufactured machinery, liberal import of machinery under different modes is also being made and the capacity based on exports is being developed. This sector has tremendous export potential.

b. Readymade Garment Industry

Pakistan with total exports of around US\$ 1 billion has a meager share of 1% in the global apparel market. The apparel export product mix from Pakistan is heavily tilted towards men's wear and knitted garments.

The Garment Industry provides highest value addition in Textile Sector. This industry is distributed in small, medium and large scale units most of them having 50 machines and below, large units are now coming up in the organized sector of the industry. The industry enjoys the facilities of duty free import of machinery and income tax exemption. This sector has tremendous Export Performance for the future.

c. Towel Industry

There are about 7500 Towel Looms in the country in both Organized and unorganized sector. This Industry is dominantly export based and its growth has all the time depended on export outlets. Over 300 percent increase in export of towels in the past indicate that tremendous possibilities exist for further expansion provided the existing towels manufacturing factories are up geared to produce higher value towels.

d. Tarpaulin & Canvas

Canvas exports can be subdivided into five categories i.e. tarpaulins, awnings and sun blinds, tents, sails, pneumatic mattresses and camping goods. Although all of the different types of canvas are being manufactured in Pakistan but it has acquired a degree of specialization in the manufacture of tarpaulins and canvas. Being the highest raw cotton consuming sector its production capacity is more than 100 million square meters and around 90 percent of its production is exported. This value-added sector has also great potential for export. The 90% of its production is exported while 5-10% is consumed locally by Armed Forces Food Department.

Pakistan is the cheapest source of supply of Tents and Canvas.

e. Synthetic Fiber Manufacturing Sector

This sector has made progress in line with demand of the Textile Industry. Presently there are seven (7) Polyester Fiber Units with production Capacity of 625000 Tons per annum, two acrylic fiber units of which one unit (M/s. Dewan Salman) has started its commercial production in December 1999 with rated capacity of 25,000 Tons per annum while other unit of Crescent Group is under installation. One Unit of Viscose Fiber with a capacity of 10,000 tons has also gone into production. Besides import of M.M. Fibers is permissible to supplement the local production.

vi. Filament Yarn Manufacturing Industry

The Synthetic filament yarn manufacturing industry picked up momentum during 5th Five Year Plan when demand and hence imports increased and private sector was permitted to make feasible investment in the rising market conditions. Today following three kinds of filament yarn are manufactured locally:-

Table 3.5: Capacity of Synthetic Filament Yarn					
Type of yarn	No of Units	Production of Capacity (Metric. Tons)			
Acetate Rayon Yarn	1 Units	3000			
Nylon Filament Yarn	3 Units	2000			
Polyester Filament Yarn	21 Units	95000			
Source: Te	extile Commissio	oner's Organization			

Production capacity of Polyester Filament Yarn has increased while the demand for local synthetic weaving industry is stagnating: the production filament fabrics is not picking up as their exports sales are not feasible and local market is heavily flooded with smuggled goods. The Production of Polyester Filament Yarn is approx. 78000 Tons per annum. Government in the last year reduced in duty on filament yarn. While it was helpful to the Synthetic Weaving Units, its impact on the Filament industry is evident in the form of closure. Recently Hosiery sector has started consuming synthetic yarns for export of Knitted Garments which are both value added as well as diversified in product.

vii. Art Silk and Synthetic Weaving Industry

Art Silk and Synthetic Weaving Industry has developed over the time on cottage based Power Looms Units comprising of 08-10 looms spread all over the country. There are approximately 90,000 looms in operation of which 30,000 looms are working on blended yarn and 60,000 looms on filament – yarn. Besides there are some mobile looms which have become operational on market demand. The major concentration is in Karachi – Faisalabad, Gujranwala, Jalalpur Jattan as well as in the un-settled area (Bara – Sawat – Khyber Agency and Waziristan).

3.3 Other Industries

Although Pakistan is a large exporter of cotton and textile related products in the world market. Still this does not mean that this is the only part of manufacturing in the country which isgrowing. During the last couple of years Pakistan has made huge strides in other industries as well. Some of these are documented below:

3.3.1 Engineering Sector

Engineering sector accounts for 63% share in world trade. Achieving any significant share of the world trade in engineering goods and services will require concerted efforts by Pakistan in gearing up our universities, poly-techiniques and factories for the kind of manufacturing prowess and design capabilities required by the world market. In this context an important step has been taken by the restructuring of the Engineering Development Board (EDB).

Engineering Development Board has been assigned the task of strengthening the engineering sector and integrating it with the world market to make it the driving force for economic growth. EDB is in the forefront of global integration and export promotion of engineering goods and services sector of Pakistan. As part of its engineering goods export promotion strategy to integrate ambitious and capable engineering companies with the global supply chain, EDB has so far facilitated 100 Pakistan engineering companies to participate in world's leading technology fairs either as exhibitors or as members of business delegations. EBD has embarked upon a development program detailed sector of sectors/sub-sectors with the objective to become part of international supply chain and to determine the indigenous capabilities/capacities and assess export potential of these sectors.

Formulation of New Automotive Policy in order to expand capacity and provide a conducive environment to the auto sector has also been assigned to EDB. A draft policy document was circulated to all stake holders on 11th November 2006 to seek stakeholders' comments. Five year (2007-2012) pre-announced import tariffs for Car/LCV were approved Economic by Coordination committee (ECC). New Entrant Policy for Car/LCV was also announced, having exemption from Tariff Based System for 3 years. Non tariff part of AIDP i.e., incentivising technology acquisition, HRD, Productive Asset Investment Incentives and R & D are being finalized as well.

As part of government's National Trade Corridor, EDB has been mandated to work on a *Road Freight Strategy* with special focus on Modernization of Trucking /Trailer Sector to cater to the growing trade needs of the country as well as integration with the regional markets.

a. Automobile Sector

Despite increase in the production of cars in the country, the demand of cars in market is increasing day by day. The production of cars has registered an increase of 130841 units as compared to last year's figure of 127738 (2.4%). Production of buses also increased to 758 from 625 (21.3%) in 2005-06 (July-April) whereas those of LCV's grew by 17.04 percent during the same period. Production of motor cycles increased by 12.30 percent during July-April 2005-06 (see Table 3.6). At the moment there are 47 units producing motor cycles all over the country with an installed capacity of 1648000. Out of these 47 only 6 are members of Automotive Manufacturers Pakistan Association (PAMA) and are hence reporting their production figures to them. Five new units will start production of motor cycles in the upcoming year. The production and sale of motorcycles is taken as an indirect measure to ascertain the standard of living of the middle class of Pakistan. Motor cycles are considered as one of the cheapest means of transport especially in rural areas for its price tag as well as its durability and affordable petrol consumption. The production of motorcycles remained more or less stable during the late nineties but has sky rocketed since 2000-01 and further projections show it to be increasing even at a faster rate. Since production and sale of motor cycles have been taken as being synonymous with the standard of living of the middle class, we can safely say that the outstanding growth and economic stability achieved by the country during the last couple of years has slowly but steadily started trickling down to the masses.

The auto policy envisages an investment of Rs. 250 billion in the next five years and make achievable 0.5 million cars per annum as envisaged in the auto policy. Most of this investment will be made by the vendors for capacity expansion to meet the target of 500,000 vehicles per annum by 2011-2012. By introducing the new auto policy the government also wanted to ensure production of quality vehicle matching the production standards of an auto giant like Japan. For this reason an institute will be in place by the end of this fiscal year to enhance skill training in the automobile sector. The policy will offer incentives to the automobile sector for the export of auto parts. This will also have targets for the industry and encourage local production of higher value-added components

Item	Inst. Capacity	2005-06	July-A		
Item	(Single Shift)	£00J-00	2005-06	2006-07	% Change
Cars	164000	160,058	127,738	130,841	2.4
Trucks	17500	4518	3746	3655	(2.4)
Buses	3900	825	625	758	21.3
LCV's / Jeeps	32500	32,053	25,510	30,354	19.0
Tractors	50000	49439	39745	44274	11.4
Motorcycles	733000	744875	607084	681752	12.3

of automobile. Furthermore, a new cluster for auto sector will also be developed in Karachi.

The automobile industry of Pakistan can achieve sustained growth, as there is a growing demand from local consumers along with potential to export in foreign markets. The future of this "Industry of Industries" can be quite promising for the overall economy provided that there is a balance between production levels of vendors and assemblers, stable policies, continuity of governmental policies and assistance in financing investment and taxation.

3.3.2. Fertilizer Industry

There are about six urea manufacturers in the country of which four are listed at the local stock exchanges. These include Fauji Fertilizer Company Limited, Engro Chemicals, Fauji Fertilizers Bin Qasim (FFBL) and Dawood Hercules Company Limited. Fauji Fertilizer is the largest player in the fertilizer sector with a 44 percent market share, while Engro, as the second largest urea manufacturer has about 17 percent market share. Only one fertilizer manufacturer, FFBL, produces DAP in the country, with 68 percent of the DAP usage imported. The production of Urea, Ammonium Nitrate and **Di-Ammonium** Phosphate, which is 91 percent of all the fertilizer products increased by 0.75 percent, 1.00 percent and 3.88 percent during July - April 2006-07. The production of other products declined, Nitrogen Phosphate Potash (NPK) by 31.30%, as low-sale forecasting resulted in production adjustment and S. Phosphate by 12.6%, as the plant remained unoperational due to mechanical reasons.

The fertilizer industry is currently facing a urea supply shortfall and by end August 2006, the proportion of imports in total urea off take had increased to about 13%. Over the last 5 years, the average urea off take growth was 5.1%. Urea manufacturers are running at 100% plus capacity utilization levels and two manufacturers are considering expanding capacity to fill-in the growing demand supply gap. For the purpose of balanced use of fertilizer, the GoP has recently announced subsidy of Rs. 250/ per bag on DAP. This move is likely to improve DAP off take in the country. The average growth in DAP off take over the last 5-years has been 3.4%.

The Government of Pakistan provides an indirect subsidy to fertilizer manufacturers by selling feedstock gas (80% of the raw material cost) at approximately 50% lower rates compared to the price for commercial users. The price of urea has grown at an average rate of 8% in the last 5 years and currently a 50kg bag of urea costs about Rs. 535 to the farmer. On the flip side, imported urea costs GoP at least Rs. 1200/bag. The heavy burden of imported urea's cost is being borne by the GoP, while its distribution is local manufacturers' responsibility on a '*zero profit*' margin.

In the face of rising urea supply shortfall, the GoP has recently awarded a 100MMCFD gas reserve to Engro Chemical. The company is in the process of arranging finances in order to start building a production facility. 100MMCFD gas would allow Engro to increase its urea production by approximately 1.1million tons and when the facility comes online in 2010, Engro's market share on annualized basis would increase to about 35% against existing 17%. FFBL is also in the process of increasing its urea and DAP production capacity.

3.3.3. Paint and Varnish

There are around 22 units in the organized and over 400 units in the unorganized sector for the manufacturing of paints and varnishes. Around 50 percent of the domestic demand for paints and varnishes is met through production in the organized sector while the remaining comes from the unorganized sector. The per capita consumption of paints in Pakistan is low at 0.8 kg per annum compared to 4 kgs in the South East Asian nations, 22 kg in the developed world and 15 kg per capita for the world. The demand for paints and varnishes is rising due to the resurgence of housing and construction sector. During July-April, 2006-07, the production of paints and varnishes both solid and liquid grew by 43.80 percent and 14.11 percent, respectively.

3.3.4. Cement Industry

The last few years have been a golden period for local cement manufacturers, where improving economic fundamentals, government of Pakistan's increased spending on infrastructure development, high commercial activity and rising demand for housing on account of higher income, has kept cement off take growth in double digits. During FY07, cement sales registered a growth of 31% to 17.53 million tons versus 13.35 million tons sold in the corresponding period of last year. Local sales grew by 26 percent and reached at 15.38 million tons, while exports increased massively by around 85 percent.

The cement industry comprises about 27 firms of which over 21 firms are listed cement manufacturers. The industry is divided into two broad categories; the Northern Region and the Southern Region. The northern region has over 87% share in total cement dispatches while the manufacturers based in the Southern region only contribute 13% on average to the annual cement sales.

Cement's demand side of the equation is pretty strong on the back of 1) GoP's 60% higher Public Sector Development Projects allocation target, 2) cement demand's strong correlation with the GDP growth and 7 percent GDP growth rate in FY07, 3) an increasing number of real-estate development projects for commercial and residential use, 4) a developing export market and 5) expected construction of mega dams. According to the All Pakistan Cement Manufacturers' Association (APCMA), the current industry's capacity for cement is 24 million tons, which is likely to rise to 37 million tons by the end of FY07 given the expansion being undertaken in the sector. On the other hand, consensus expects demand growth to settle at around 17%, which translates into 22 million tons. If the planned expansions come online according to APCMA's estimates, the industry is likely to have a production surplus of about 15mn tons.

After reaching highs of Rs. 430/bag at the retail level earlier last year, cement prices fell sharply during early FY07. Average cement prices are Rs. 234/bag as on 17th May, 2007 as compared with Rs. 315/bag last year. Cement demand remained robust as it grew by 19 percent and 13 percent during FY05 and FY06 respectively. During the first nine months of FY07 (July-March), dispatches increased by 30 percent as compared to the corresponding period last year. Industry analysts expect demand for cement to remain strong during the rest of the year. According, to their forecasts, demand will grow by 26 percent during FY07 and 17 percent in FY08 on the back of demand for housing that still remains high and government spending on infrastructure and development projects.

Cement production capacity is expected to increase by 111 percent to 44.5 million MT in FY08 compared to FY06, outstripping demand growth that is projected to increase by 48 percent during the same period. Consequently, capacity

Table 3.7: An Overview Of Cement Sector						
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07 (Jul-Mar)
No. of operational						
units	22	22	23	24	26	29
Installed Capacity						
(million tons)	15.72	16.32	16.93	17.90	24.30	35
Domestic						
Consumption						
(million tons)	9.83	10.98	12.54	14.78	16.85	16.98
Exports						
(million tons)	0.107	0.43	1.118	1.565	1.505	2.13
Capacity						
Utilization %	62.5	67.2	74.0	82.5	84.0	76.38
				ç	Source: APCMA*	Up to June 2007

utilization is expected to drop to 61 percent in FY08.

Currently there are 21 listed companies in this sector with a total market capitalization of Rs. 115.4 billion (\$1.9 billion). However, Lucky Cement, capitalizing on its size, location and early expansion, is the largest and has therefore reaped the most benefit of growing cement sales. The company in nine months dispatched 2.45 million tons cement in the local market and exported 917000ktons, registering a growth of 97 percent and 254 percent, respectively. Lucky was followed by D.G Khan and Bestway Cement which recorded sales growth of 14 percent and 93 percent respectively. However, overall cement production for the first half of FY07 (July-April) have registered a healthy growth of 21.11 percent as compare to 13.03 percent last year.

3.4 Mining and Quarrying

Pakistan has a widely varied geological frame work, ranging from pre-Cambrian to the Present that includes a number of zones hosting several metallic minerals, industrial minerals, precious and semi-precious stones. Although many efforts have been made in developing geological products, institutional, academic and R&D infrastructure, much remains to be done to enable this sector to take full advantage of its endowment. As a result of various efforts devoted for the development of mineral sector, resources of several minerals have been discovered over the last many decades, including world class resources of lignite coal deposits at Thar; Sindh; porphyry copper-gold deposits in Chagai; Balochistan; Iron ore deposits at Dilband; Balochistan; lead-zinc

deposits at Duddar; Balochistan; gypsum; rock salt; limestone; dolomite; china clays etc. in the Indus Basin, ornamental and construction stones in the various parts of the country; and about 30 different gems and precious stone deposits in northern Pakistan. These and many other mineral projects are in various stages of implementation from grass root through exploration and evaluation to development stages.

However, mineral industry in Pakistan shows that over the last few decades this sector has been allocated very small amount - 0.45% to 2.46% of the total public sector expenditure since first five year plan reflecting its contribution to Gross National Product (GNP) of just around 0.5%. The mineral resources of a country are valuable means and measures of its economic and industrial growth. These are still more important for Pakistan because of its favorable geological environment and a large number of mineral resources in the country. Considering that substantial scope exists for the development uncertainties, it requires Government support and recognition of mineral sector.

The Government is fully committed to making the mineral sector in Pakistan one of the most profitable for the country. During the current fiscal year the mining and quarrying sector has registered a growth rate of 5.6 percent as against 4.58 percent of last year. The increased growth was propelled by strong growths recorded in magnetite (30%), dolomite (26.1%), Limestone (25.2%) and chromites. To make this sector thrive more in the

upcoming year the Government has already started various initiatives which is evident from the discovery and development of world class copper-gold deposits in Chagai; Balochistan by Australian Firms that would fetch \$ 500 million to \$ 600 million per year during the lives of these mines. Successful upgradation studies being carried out by German Consultants on Dilband Iron Ores Balochistan would, to large extent, minimize importation of Iron Ores 1.7 million tons iron ores costing about Rs. 3.2 billion per year. Development of Thar coal field, one of the largest good quality lignite deposits in the world, on completion, would provide additional source of energy. Moreover development of abundantly available high quality industrial minerals and natural stones has bright prospects for exports, import substitution and local consumption. The confidence of foreign investors, developers and consultants repose in Pakistan, clearly demonstrate the successful implementation of investment oriented policies initiated by the present regime.

The minerals described below are under various phases of exploration, development and utilization in Pakistan. Energy Minerals (coal), Agriculture Minerals (rock phosphate, gypsum), Metallic Minerals (iron ores, copper, gold, zinc-lead, chromite, antimony), Refractory Minerals (refractory clays, magnesite, chromite, silica sand, dolomite) and Glass & Ceramic Minerals (kaolinchina clay, nephyeline syenite, silica sand).

Table-3.8 : Extraction of Principal Minerals						
Minerals	Units of the	2004-05	2005-06	July-March		%
	quantity	2004-03	2003-00	2005-06	2006-07	/0
Coal	Million tonnes	3.4	3.9	2.5	2.8	3.7
Natural Gas	000 MMCFT	38.0	39.6	29.7	30.1	1.3
Crude Oil	Mln. Barrels	24.1	23.9	17.9	18.2	1.7
Chromites	000 tonnes	46.3	52.5	51.0	60.0	17.6
Dolomite	000 tonnes	199.6	184.0	133.0	167.7	26.1
Gypsum	000 tonnes	552.0	601.0	463.0	478.0	3.2
Limestone	Mln. tonnes	14.8	18.4	12.7	15.9	25.2
Magnetite	000 tonnes	3.0	2.4	1.0	1.3	30.0
Rock Salt	000 tonnes	1648.2	1859.0	1385.0	1396.0	0.8
Sulphur	000 tonnes	24.1	24.7	17.9	19.2	7.3
Baryte	000 tonnes	42.0	52.1	39.0	40.0	2.6
				Source	: Federal Bureau d	of Statistics

Sindh and Balochistan are primarily the two provinces of the country where most of the country's mineral deposits are located. In order to step up the mineral extraction and development process in the above provinces specific Mines and Minerals Development Department has been constituted so far however only in Sindh.

Mines & Mineral Development Department (Sindh)

The Department of Mines & Mineral Development (M&MD) was created in Sindh in 2001 in pursuance of the National Mineral Policy, 1995. The objective as envisaged in the National Mineral Policy, 1995 is to establish an enabling institutional framework which could cater for and facilitate foreign and domestic investment in the field of mineral development. The Department of M&MD has also taken all necessary steps for further establishing its field offices viz the Directorate of M&MD, Inspectorate of Mines and the Sindh Coal Authority.

The province of Sindh has large quantities of minerals. In all there are 24 minerals which are being mined at present. This province also has large quantities of coal and granite reserves. The granite area which was previously inaccessible has now been connected with Karachi by a network of roads and other facilities like Rest House etc. It is also proposed that a Granite Park should be established at Nagarparkar. Karunjhar range of mountains in Nagarparkar has huge reserves of granite and other rock types of extractable thickness which has the potential to compete the international market. It spreads over vast area and its estimated reserves are around 10 billion tons. The Directorate of Mines & Mineral Development, Sindh is sponsoring a scheme for study through consultant "Feasibility Study of Granite Deposits in Tharparkar, Sindh''. Previously leases were granted in haphazard manner without any policy. The department has now constituted a policy for judicious and transparent award of leases in this area. It will be ensured that 3 large granite factories are set up by year 2030 in this remote area. This will not only generate large employment opportunities for poor and downtrodden masses of this far flung area but will also get world class granite for local consumption and export with the result that poverty ratio will be decreased and increase in growth rate of government revenue will take major part for economic development of the province.

It is imperative to mention here that Sindh has large coal reserves. It is estimated to have around 185 billion tons of coal in Lakhra, East of Indus and Thar. At present percentage of coal in energy is negligible (not even 3%). The department is in the process of assessment and exploitation studies of these coal reserves and intends to set up Power Houses / Projects running on this coal. Department intends to have 30% energy produce on coal by year 2030.

3.5 Public Sector in Industry

Performance review of operating units is carried out for corporations namely; NFC, PACO, SEC and while Pakistan Steel. PIDC/SCCP has privatized/liquidated all its units under GCP (Morafco Industries Limited) is in closed down position. Key performance indicators present the following picture for July-June 2006-2007 based on 9 months' actual figures and three month's projections. In case of NFC and Pakistan Steel. NFC's performance is based on 6 month's actual figures and 6 month's projections, while Pakistan Steels performance is based on 8 month's actual and 4 month's projections.

Table 13.9: Performance Of Public Sector Industries (Excluding Pak Steel) (July – June) (Rs. In Million)					
	2005-2006	2006-2007 (Expected)	Increase/ Decrease%		
Production Value *	3,879	3,998	3.07		
Net Sales	4,825	5,358	11.05		
Pre-tax profit	9	-5	-155.56		
Taxes and duties	360	355	-1.39		
No. of employees **	5,491***	5,032	-8.36		

*Production Value of PACO is at current prices. NFC & SEC are at constant prices of 1999-2000 and 1992-93 respectively.

**Including daily wagers.

***Excluding holding corporations.

Production value in aggregate of all operating units under three corporations excluding Pakistan Steel increased by 3.07% against the same period last year. SEC showed an increase of 4.40%, while NFC and PACO showed a decline of 3.41% and 9.68% respectively. Net sales (excluding Pakistan Steel) increased to an estimated amount of Rs.5, 358 million for July-June, 2006-2007 compared to Rs. 4.825 million during last year showing an increase of 11.05%. NFC and SEC have also shown an increasing trend in net sales. The increasing trend is 14.21% and 11.36% respectively, while PACO has shown a decline of 21.74%. During July-June 2006-2007 the three corporations (including operational/non-operational units and excluding Pak Steel) incurred an aggregate loss of Rs.5 million against the aggregate profit of Rs 9 million during last year. NFC incurred loss of Rs.61 million during 2006-07 against pretax profit of 3 million during last year. PACO showed decrease in loss by 17 million. Profit at SEC increased by Rs. 33 million (23.24%). During July-June 2006-2007, taxes and duties paid by all operating units under the sector corporations excluding Pakistan Steel decreased to Rs. 355 million from Rs.360 million paid during last year, showing a decrease by 1.39% mainly due to decline in taxes and duties at NFC and PACO by 23.26% and 62.50% respectively as compared to last year. Total number of employees with all operational/non-operational units (including daily wagers) excluding Pak Steel, as on 30th June, 2007 stands at 5,032 against 5,491 on 30th June, 2006. The number of employees in the entire three corporations i.e. NFC, PACO and SEC

shows decrease by 11, 14 and 434 employees respectively.

3.5.1 Performance of Pakistan Steel

The overall share of Pakistan Steel in the market is 30 percent. The Steel Mill is producing Coke, Pig Iron, Billets, Hot Rolled Coils/Sheets, Cold Rolled Coils/Sheets, formed sections like Channels, Angles and Galvanized sheets.

Major performance indicators of Pakistan Steel during the period July-June 2005-06 & 2006-07 are summarized in table 13.10:

Particulars	2005-2006	2006-2007 (Expected/Actual)	Increase/Decrease%
Production Value*	8,548	12,469	45.87
Net Sales	20,646	29,624	43.49
Pre-Tax profit	1,295	3,522	171.97
Taxes and duties	3,898	4,427	13.57
No of employees	16,426	16,290	-0.83

3.5.2 The Privatization Program

Privatization is the corner stone of the successful economic reforms of the Government. As a result of these reforms which also included liberalization and de-regulation accompanied by transparency, good governance and continuity and consistency of policies, the economy has been completely transformed and the country has been placed on the path of rapid, sustained growth.

The government is fully committed to the implementation of its approved privatization program through an open, fair and transparent competitive process, as laid down in the privatization commission ordinance 2000 and the rules and regulation presented there under:

Objectives of the Privatization Policy include; To stimulate investment and promote economic growth through encouragement of the private sector; To foster competition and increase efficiency; To improve the overall performance of the individual enterprise; To strengthen public finances; To broaden and deepen the capital markets through the "Privatization for the People" program; and to repay government debt and alleviate poverty.

The government is pursuing privatization policy vigorously and has achieved unprecedented success during the past seven years. From 1999 to 48

date, a total amount of US\$ 6.1 billion have been realized from 61 transactions, which represents 87 percent of the total privatization proceeds of US\$ 7 billion from 1991 to date (from 163 transactions).

During the period July 2006 to February 2007, the privatization commission completed five transactions that fetched an amount of Rs. 67.664 billion. OGDCL's 10 percent listing and domestic offering was over subscribed yielding a total of \$ 811 million, which reflected the confidence of investors in the policies of present government. The privatization transactions of Pakistan State Oil (PSO), Roosevelt Hotel, New York, Services International Hotel, Lahore, National Investment Trust Limited (NITL), Genco-1 Jamshoro, Hazara Phosphate Fertilizers Limited are at various stages of processing and are likely to be brought to the bidding soon. The five transactions, for a total of Rs. 67.664 billion, completed from July 2006 to February 2007 are as under:

Table 3.11: Assets Privatized during FY 07					
Assets	Value				
OGDCL (GDR & domestic offering)	Rs. 46.963 billion				
Pak American Fertilizers (shares)	Rs. 15.949 billion				
Javedan Cement Limited	Rs. 4.316 billion				
Lyallpur Chemical & Fertilizers	Rs. 0.280 billion				
Lasbella Textile Mills	Rs. 0.156 billion				
Source: Privatization Commission					

Sector		From to Jun 05	From Jul 05 to Jun 06			From 6 to Feb, 07	Total	
Sector	No.	Amount	No.	Amount	No.	Amount	Number of Transaction	Amount
Banking	7	41,023					7	41,023
Capital Market	17	31,103	1	1,087	1	46,963	19	79,153
Transaction								
Energy	13	37,319	1	15,860			14	53,179
Telecom	2	30,558	2	155,500			4	186,058
Automobile	7	1,102					7	1,102
Cement	15	8,655	1	3,205	1	4,316	17	16,176
Chemical / Fertilizer	21	24,355			2	16,229	23	40,584
Engineering	7	183					7	183
Ghee Mills	22	838	1	8			23	846
Rice/Roti Plants	23	328					23	328
Textile	2	87	1	128	1	156	4	371
Newspapers	5	270					5	270
Tourism	4	1,805					4	1,805
Others	6	160					6	160
Total	151	177,786	7	175,7 88	5	67,664	<i>163</i>	421,238
						Sou	rce: Privatization	Commission

Sector wise summary of 163 transactions as follows: completed from January 1991 to February 2007 is

3.6 Small and Medium Enterprises (SMEs)

Small and medium enterprises (SMEs) play a central role in creating market oriented economic growth, employing the growing workforce in developing countries so helping in income generation and in reducing poverty. The abundance of labour and the shortages of capital which are characteristics of developing countries are comparable with the SMEs labour intensive character. In the industrialized countries, statistics show that SMEs are major contributors to private sector employment. Empirical studies have shown that SMEs contribute to over 55 percent of GDP and over 65 percent of total employment in high income countries. SMEs and informal enterprises, account for over 60 percent of GDP and over 70 percent of total employment in low income countries, while they contribute about 70 percent of GDP and over 95 percent of total employment in middle income countries.

Box-1 SME Policy 2007: Objectives, Scope and Principles Objective

The objective of SME Policy is to provide a short and a medium to long-term policy framework with an implementation mechanism for achieving higher economic growth based on SME led private sector development. **Principles**

The Policy finds it appropriate to highlight the key principles on which it is being based. They are:

• The recommendations proposed in the SME Policy may be implemented / supported through an SME Act 2006.

• The SME Policy covers measures for promotion of 'Entrepreneurship Culture' and support for growth of existing enterprises.

• The SME Policy realizes the different approaches required for supporting Small Enterprises as opposed to Medium Enterprises. Thus, wherever required, separate policy measures are proposed for small and for medium enterprise growth.

• Women and other marginalized groups are proposed to receive special focus within the SME Policy.

• Rural based and agro processing enterprises are proposed to receive special attention while devising specific support mechanisms.

• SME development offers most viable option for private sector led growth that reduces poverty and creates a large number of jobs all across Pakistan.

• SME development in Pakistan will require decisive and concurrent measures in a number of policy areas such as business regulations, fiscal, trade rules, labour, incentives and support (Human Resource Development, Technology, Marketing, etc.) leading to an '*SME Space*' in these domains.

• SMEs face inherent disadvantages (because of their size) vis-à-vis large firms, which need to be offset by government support mechanisms and incentives.

• Private sector will be encouraged to play a key role in implementation of the policy.

Source: SME Bank

Public sector has a major role to play in the development of SMEs, as the later are constrained by certain inherent weaknesses and need support. Due to their small size they do not have the same capacity to influence the environment in their favour as larger firms, regulations impose disproportional costs on SMEs, they are limited in capability, for because of their small size SMEs usually lack management capacity, cannot afford costly support services (e.g. financial, human resources, legal, training) and ability to access and analyze information is practically weak for SMEs.

SMEs basically need a national SME policy framework and favorable policy environment to operate .This implies providing them with opportunities and incentives, so they can invest productively, create jobs and expand. SMEs are receiving increasing focus in Pakistan as well because of their significance to the economy; contributing 30 percent to GDP, with the share of 25 percent in manufactured exports, employing 78 percent of the industrial labor force, and contributing 35 percent towards value addition in manufacturing. An estimated 3.2 million SMEs operate in the country, where more than half are in trade, wholesale, retail, restaurants, where the bulk employee is less than 5 persons. Punjab houses more than 65 percent of the small and medium sized business, followed by Sindh, NWFP, and Balochistan with the share of 18, 14 and 2 percent respectively.

Given the significance of the SME sector, recent years have witnessed increasing government/ private sector focus. Studies have been undertaken to identify the constraints the SMEs face, an SMEs policy has been announced, commercial banks are now enhancing their to lending to SMEs, some universities are offering programs in Entrepreneurship and SME Management . In its endeavors, Pakistan like some of the other developing countries has received support from the Asian Development Bank. Non-availability of finance has been recognized as one of the major impediments to SME development. One of the major objectives of financial sector reforms in Pakistan was enabling banks to direct funds to under served sector of the economy, which has the significance for the economy but had not received adequate funds. Small and medium enterprises were one such area.

To meet the financing needs of the SME sector , there is the SME Bank formed by the merger of Regional Development Finance Corporation in 2002, with loans beings extended for working capital and medium to long term financing, programs lending and leasing through its subsidiary, SME leasing . The SME Bank has lent to areas like CNG station, health development, surgical instrument, fan manufacturers, power looms, carpet manufacturer, gems & jewellery etc.

Small & Medium Enterprise Development Authority (SMEDA) is another institution dedicated solely to the promotion of SMEs in the country. During FY07 SMEDA has started establishing on ground demonstration projects and Common Facility Centres to enable the private sector catch up with fast changing global trends in technology and management processes with enhanced productivity and quality standards. These include projects in sports, agro based industry, leather and light engineering sectors. These projects are spread all over the country. Some of these projects are given as under:

Women Business Incubation Center (WBIC); This is SMEDA's first pilot project where it intends providing 'hands-on support' to women entrepreneurs including business infrastructure, addressing the issue of their spatial mobility. The facility offers a fully furnished air conditioned office; display area along with administrative and business development support along side the various service packages to encourage female participation in economic development. *Aik Hunar* *Aik Nagar (AHAN) Project*; This project aims at reducing poverty at grass root level by preserving and developing traditional rural arts and crafts and providing them a market linkage to urban areas and global markets. It is planned to launch as many as one hundred pilot projects under this program by the end of December 2008 in the rural and urban areas of the country. *Implementation of Medium Term Development Framework of Government of Pakistan;* Aligning with the priorities of MTDF the operational strategy of SMEDA has been suitably adjusted to adequately address issues related to sector development at sub national level. Resultantly, it has improved the speed of reforms and reprioritized activities to improve competitiveness and productivity of selected SME sectors. Sector Development Companies have already been set up for Gems & Jewelry, Marble & Granite, Furniture, Dairy and Hunting and Sporting Arms Sectors. These Companies work on the Public Private Partnership basis with private sector having a leading role in decision making.

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	Anti-	Argonite/	China	Celestite	Chromite	Coal	Dolomite	Fire Clay	Fullers	Gypsum	Lime
Reserves/	mony	Marble	Clay	(tonnes)			(tonnes)		Earth	Anhydrite	Stone
Years	(tonnes)	Very	4.9		fairly	185	Very	Over 100	fairly	350	Very
		large	million		large	billion	large	million	large	million	large
		Deposits	tons		Deposits	tonnes	Deposits	tons	Deposits	tons	Deposits
1990-91	128	281	44	1773	24	3054	154591	120	23	468	9009
1991-92	-	321	42	1069	28	3627	180987	139	21	471	8528
1992-93	5	388	37	1682	23	3256	220241	132	23	533	9015
1993-94	3	460	48	4398	11	3534	228090	116	17	666	9125
1994-95	-	467	31	1403	13	3043	227079	152	15	620	9682
1995-96	-	458	43	762	27	3465	185115	112	18	420	9740
1996-97	-	459	66	812	35	3496	215556	110	12	522	9491
1997-98	-	345	68	961	35	3145	116046	94	18	307	11166
1998-99	-	403	67	642	18	3378	198831	153	16	242	9467
1999-00	-	579	63	802	26	3164	347583	139	19	355	9589
2000-01	95	620	47	807	22	3285	352689	164	13	364	10870
2001-02	37	685	54	382	24	3512	312886	171	16	402	10820
2002-03	-	1066	40	402	31	3609	340864	117	15	424	11880
2003-04	-	994	25	570	29	3325	297419	193	14	467	13150
2004-05	5	1280	38	1855	46	3367	199653	254	17	552	14857
2005-06	91	1835	53	3160	52	3854	183952	333	16	601	18427
<u>Jul-Mar</u>											
2005-06	49	913	11	1140	40	1711	146526	205	5	252	11861
2006-07 P	60	1540	38	1810	60	2768	187738	290	9	378	15896

RESERVES AND EXTRACTION OF PRINCIPAL MINERALS

P Provisional

RESERVES AND EXTRACTION OF PRINCIPAL MINERALS

											(000 tonnes)
	Magne-	Rock	Silica	Ochre	Sulphur	Soap	Baryte	Bauxite/	Iron	Crude	Natural
	site	Salt	Sand	(tonnes)	(tonnes)	Stone		Laterite	Ore	Oil (m.	Gas (000
	(tonnes)							(tonnes)	(tonnes)	barrels)	m.cu.mtr.)
		Over 100	Very		0.8	0.6	5	Over 74	Over 430	184	492
Reserves/		million	large		million	million	million	million	million	million	billion
Years		tons	deposits		tons	tons	tons	tons	tons	US barrels	cu. metre
1990-91	4,242	736	143	1,285	295	32	26	24,644	318	23.49	14.66
1991-92	6,333	833	132	1,001	215	37	30	21,818	937	22.47	15.57
1992-93	5,047	895	158	1,000	510	48	26	18,682	1,922	21.90	16.50
1993-94	7,000	916	169	745	715	44	18	34,984	3,792	20.68	17.65
1994-95	5,227	890	152	4,623	510	34	20	32,214	8,103	19.86	17.77
1995-96	14,981	958	184	8,081	20	40	14	19,554	6,046	21.05	18.85
1996-97	6,679	1,066	154	2,047	640	45	30	33,583	4,575	21.27	19.76
1997-98	3,397	971	135	3,147	22,458	49	30	28,366	5,500	20.54	19.82
1998-99	3,455	1,190	158	4,080	19,103	61	18	41,362	38,151	19.95	20.92
1999-00	4,513	1,358	167	4,793	22,812	48	26	48,237	45,980	20.40	23.17
2000-01	4,645	1,394	155	4,691	17,428	47	28	35,114	24,765	21.08	24.78
2001-02	4,637	1,423	157	5,064	22,580	39	21	37,182	4,942	23.19	26.16
2002-03	2,645	1,426	185	6,733	19,402	66	41	67,536	11,483	23.46	28.11
2003-04	6,074	1,640	259	7,861	23,873	52	44	88,044	84,946	22.62	34.06
2004-05	3,029	1,648	309	18,686	24,158	21	42	65,040	104,278	24.12	38.08
2005-06	2,446	1,859	411	34,320	24,730	21	52	78,310	131,259	23.94	39.65
<u>Jul-Mar</u>											
2005-06	2,445	875	237	41,108	12,820	30	17	46,360	69,645	12.03	19.67
2006-07 P	2,980	1,396	338	41,662	19,230	41	36	53,948	122,135	18.21	30.08

Source : Federal Bureau of Statistics.

		Mining		Manufacturing
<i>Year</i>	1969-70=100	1975-76=100	1980-81=100	1980-81=100
1990-91	468	410.3	275.2	202.5
991-92	472.1	412.8	277.8	218.5
992-93	478	420.6	278.4	227.5
993-94	483.4	427.1	275.2	237.2
994-95	461.8	417.6	270.8	240.8
995-96	504.8	445.3	296.7	248.4
996-97	520.1	456.3	305.6	243.1
997-98	512.3	449.5	302.5	261.6
998-99	509.1	448.7	283.1	270.8
			1999-20	000=100
999-00	545.6	468.8	100.0	100.0
000-01	576.7	497.6	105.6	101.0
001-02	611.3	532.8	112.5	114.8
002-03	656.7	572.4	119.6	123.1
003-04	709.8	597.2	134.8	145.5
004-05			148.9	168.14
005-06			155.4	
ul-Mar				
005-06			155.8	171.7
006-07 P			168.5	187.1
Not available			Source: Federa	al Bureau of Statistics

PRODUCTION INDEX OF MINING AND MANUFACTURING

Ρ Provisonal

COTTON TEXTILES STATISTICS

				Working	at the end	1					
		Installed	Capacity	of the	e period	Spindle	Loom	Consump-	Total	Surplus	Total Pro-
Year		No. of	No. of	No. of	No. of	Hours	Hours	tion of	Yarn Pro-	Yarn	duction
	No. of	Spindles	Looms	Spindles	Looms	Worked	Worked	Cotton	duced		of Cloth
	Mills	(000)	(000)	(000)	(000)	(Million)	(Million)	(mln kg)	(mln.kg)	(mln. kg)	(mln. sq mtr.)
1990-91	247	5,493	15	4,754	8	39,542	60.2	1,197.5	1,041.2	1,001.0	292.9
1991-92	271	6,141	15	5,260	8	43,606	58.8	1,342.8	1,170.7	1,134.7	307.9
1992-93	284	6,768	14	5,433	6	46,364	55.5	1,427.0	1,219.0	1,148.6	325.4
1993-94	320	8,182	14	5,886	6	47,221	44.0	1,483.4	1,309.6	1,272.8	314.9
1994-95	334	8,307	14	5,991	5	49,734	41.8	1,558.9	1,369.7	1,340.6	321.8
1995-96	349	8,493	13	6,356	5	52,239	37.1	1,661.9	1,495.1	1,434.7	327.0
1996-97	357	8,137	10	6,465	5	53,625	36.4	1,670.1	1,520.8	1,473.9	333.5
1997-98	353	8,274	10	6,556	4	55,005	37.7	1,751.0	1,532.3	1,478.9	340.3
1998-99	348	8,298	10	6,594	5	55,802	35.2	1,839.6	1,540.3	1,482.4	384.6
1999-00	351	8,383	10	6,750	4	57,205	34.3	1,961.6	1,669.9	1,604.4	437.2
2000-01	353	8,594	10	7,105	4	59,219	34.1	2,070.1	1,721.0	1,652.7	490.2
2001-02	354	8,967	10	7,078	5	61,267	36.3	2,155.2	1,808.6	1,731.2	568.4
2002-03	363	9,216	10	7,623	5	64,274	38.7	2,371.3	1,934.9	1,855.4	576.6
2003-04	363	9,592	11	8,009	4	70,214	32.6	2,407.6	1,938.9	1,845.8	683.4
2004-05	423	10,906	9	8,817	5	72,255	30.3	2,622.8	2,280.6	2,175.2	920.7
2005-06	516	11,292	9	9,754	4	74,884	24.8	2,932.6	2,556.3	2,460.5	915.3
2006-07 P	567	11,809	9	9,920	5	76,173	26.0	3,214.3	2,856.0	2,706.9	925.0
P: Provisiona								Source:	Federal Bure	au of Statistics	

Federal Bureau of Statistics

Textile Commissioner Organization

PRODUCTION OF FERTILIZERS, VEGETABLE GHEE, SUGAR AND CEMENT

								(000 tonnes)
			Fertilizers					
Year	Urea	Super Phos- phate	Ammo- nium Nitrate	Ammo- nium Sulphate	Nitro Phos- phate	Vegetable Ghee	Sugar	Cement
				•				
1990-91	2050.3	175.1	318.8	92.3	321.0	656	1,934	7,762
1991-92	1,898.0	194.0	300.0	92.9	309.8	639	2,322	8,321
1992-93	2,306.1	205.0	302.2	92.9	297.3	725	2,384	8,558
1993-94	3,103.8	195.1	242.7	82.0	251.4	671	2,841	8,100
1994-95	3,000.2	147.0	313.9	79.6	285.0	711	2,964	7,913
1995-96	3,260.1	103.7	383.5	83.7	336.5	733	2,426	9,567
1996-97	3,258.7	0.1	330.2	80.9	350.3	714	2,383	9,536
1997-98	3,284.2	0.0	316.3	-	293.2	719	3,555	9,364
1998-99	3,521.7	21.6	338.8	-	285.0	773	3,542	9,635
1999-00	3,785.0	145.8	386.5	-	261.3	695	2,429	9,314
2000-01	4,005.1	159.6	374.4	-	282.5	835	2,956	9,674
2001-02	4,259.6	161.0	329.4	-	305.7	797	3,247	9,935
2002-03	4,401.9	147.2	335.3	-	304.9	772	3,686	10,845
2003-04	4,431.6	167.7	350.4	-	363.5	888	4,021	12,862
2004-05	4,606.4	163.1	329.9	-	338.9	1048	3,116	16,353
2005-06	4,807.2	164.1	327.9	-	366.7	1146	2,960	18,483
July-March								
2005-06	3,612.7	126.4	233.0	-	262.9	969	2,941	15,214
2006-07 P	3,639.3	110.2	236.9	-	229.9	984	3,518	18,426

- Nil

P Provisional

Source: Federal Bureau of Statistics

	Food and Tobacco		Jute Tex-		Ruk	ber	
	Beverages	Cigarettes	tiles	Motor	Motor	Cycle	Cycle
Year	(000 doz.	(Million	(000	Tyres	Tubes	Tyres	Tubes
	bottles)	Nos)	tonnes)	(000 Nos)	(000 Nos)	(000 Nos)	(000 Nos)
1990-91	67,607	29,887	96.9	952	646	3,828	5,468
1991-92	85,266	29,673	100.9	784	618	3,751	5,757
1992-93	139,823	29,947	97.5	712	550	3,826	5,612
1993-94	113,704	35,895	76.4	783	706	3,872	6,191
1994-95	143,019	32,747	68.5	912	833	3,523	5,146
1995-96	131,114	45,506	70.6	1003	909	3,988	5,594
1996-97	115,817	46,101	68.7	525	643	4,112	5,205
1997-98	149,848	48,215	95.4	767	665	1,415	4,978
1998-99	185,014	51,578	85.5	845	586	3,665	5,529
1999-00	194,336	46,976	85.5	856	490	3,767	5,937
2000-01	211,798	58,259	89.4	884	520	4,051	5,891
2001-02	207,646	55,108	81.7	908	557	4,569	6,938
2002-03	190,742	49,365	93.8	1082	616	5,330	8,942
2003-04	224,238	55,399	102	1302	587	4,894	8,004
2004-05	285,326	61,097	104.8	5336	6278	4,900	9,612
2005-06	383,624	64,137	105.4	5966	7164	5,268	10,237
<u>Jul-Mar</u>							
2005-06	296,193	52,227	85.2	4787	5581	4,405	8,219
2006-07 P	380,216	54,389	96.1	5610	8127	4,378	8,364
P Provisiona	1						(Co

PRODUCTION OF SELECTED INDUSTRIAL ITEMS

PRODUCTION OF SELECTED SELECTED ITEMS

			Chem	icals			Transport, Machinery &			
Year						Polishes &	Elec	ctrical Applianc	es	
	Soda	Sulphuric	Caustic	Chlorine	Paints &	Creams for		Sewing	Total	
	Ash	Acid	Soda	Gas	Varnishes	Footwear	Bicycles	Machines	TV Sets	
	(000 tonnes)	(000 tonnes)	(000 tonnes)	(000 tonnes)	(tonnes)	(mln. grams)	(000 Nos.)	(000 Nos.)	(000 Nos.)	
1990-91	147.2	93.5	78.5	6.7	14,308	651.1	428.8	81.3	181.7	
1991-92	185.9	97.6	82.0	6.1	18,950	682.5	478.4	85.1	145.5	
1992-93	196.2	99.8	81.5	5.9	16,626	638.1	588.6	72.3	162.2	
1993-94	197.0	102.3	89.0	5.8	9,373	602.8	563.7	76.7	112.5	
1994-95	196.1	80.4	92.7	7.8	6,865	719.5	473.4	68.1	101.1	
1995-96	221.2	69.2	109.0	9.1	8,030	836.8	545.1	84.1	277.6	
1996-97	247.0	30.8	118.2	9.4	8,005	861.1	432.4	61.1	185.6	
1997-98	240.3	28.1	115.7	9.7	5,917	869.7	452.1	36.2	107.4	
1998-99	239.4	27.0	120.4	11.3	6,500	888.8	504.0	29.7	128.3	
1999-00	245.7	57.7	141.3	14.2	7,347	897.7	534.1	27.6	121.3	
2000-01	217.9	57.1	145.5	14.5	10,922	906.7	569.6	26.9	97.4	
2001-02	215.2	59.4	150.3	15.1	10,341	920.9	553.4	24.0	450.0	
2002-03	281.5	56	164.4	15.9	3,899	935.3	629.7	30.6	764.6	
2003-04	286.5	64.6	187.5	17.2	5,406	950.1	664.1	35.0	843.1	
2004-05	297.3	91.2	206.7	19.1	15,023	410.93	587.9	36.0	908.8	
2005-06	318.7	95.5	219.3	18.2	17,148	466.38	587.1	39.0	966.4	
Jul-Mar										
2005-06	265.1	79.3	180.4	15.4	13,452	378.1	499.0	31.7	799.6	
2006-07 P	269.6	80.2	201.4	14.4	19,344	431.42	416.6	42.7	487.0	

	Electrical A	Appliances	Papers &	& Board		Steel Products	
	Electric	Electric	Paper	Paper			
Year	Bulbs	Tubes	Board	(All Types)	Coke	Pig Iron	Billets
	(MIn.Nos)	(000 metres)	(000 tonnes)	(000 tonnes)	(000 tonnes)	(000 tonnes)	(000 tonnes)
1990-91	49.3	7,728	88.6	64.2	723.6	1073.9	330.0
1991-92	43.2	4,460	111.0	66.0	737.2	1048.1	306.7
1992-93	41.3	4,205	154.8	109.0	716.4	1098.2	338.4
1993-94	42.7	5,307	133.2	129.3	771.6	1252.7	403.9
1994-95	41.6	5,352	106.2	208.4	701.5	1044.7	343.5
1995-96	45.8	5,417	110.0	193.4	685.6	1002.2	332.7
1996-97	56.4	7,598	197.6	149.0	663.0	1068.6	378.5
1997-98	62.5	8,354	166.5	178.3	667.7	1015.8	350.1
1998-99	66.8	7,991	173.6	186.8	588.7	989.3	276.1
1999-00	63.2	7,137	228.0	206.2	675.5	1106.6	345.2
2000-01	55.2	10,542	246.3	284.8	717.3	1071.2	414.7
2001-02	54.6	10,441	187.6	137.9	694.6	1042.9	412.0
2002-03	58.3	10,844	228.2	148.0	775.2	1140.2	408.4
2003-04	139.4	14,614	247.9	156.8	785.5	1180	429.2
2004-05	146.7	19,819	256.7	163.1	772.8	1137.2	271.4
2005-06	143.7	19,899	284.7	168.9	179.6	788.2	350.8
<u>Jul-Mar</u>							
2005-06	119	16,283	211.2	126.3	153.6	604.2	279.4
2006-07 P	118.5	17,762	213.3	116.5	277	813.6	310.6
P Provisional					Source:	Federal Bureau of	Statistics

PRODUCTION OF SELECTED INDUSTRIAL ITEMS

Source: Federal Bureau of Statistics Ministry of Industries

	Cotton	Cotton	Jute	Veg.Ghee	Cigarettes	Fertilizers	Cement	Soda Ash	Caustic	Sugar
	Yarn	Cloth	Goods						Soda	
1990-91	14.22	(0.65)	1.15	(3.93)	(7.41)	(2.66)	3.66	1.53	6.01	4.15
1991-92	12.44	5.12	4.13	(2.59)	(0.72)	(5.52)	7.20	26.29	4.49	20.06
1992-93	4.13	5.68	(3.37)	13.46	(0.92)	14.65	2.84	5.54	(0.61)	2.67
1993-94	7.43	(3.23)	(21.64)	(7.45)	19.86	20.96	(5.35)	(0.41)	9.20	19.17
1994-95	4.59	2.19	(10.34)	5.96	(8.77)	(1.27)	(2.31)	(0.46)	4.16	4.33
1995-96	9.16	1.62	3.07	3.09	38.96	8.89	20.90	12.80	17.58	(18.15)
1996-97	1.72	1.99	(2.69)	(2.59)	1.31	(3.53)	(0.32)	11.66	8.44	(1.77)
1997-98	0.76	2.04	38.86	0.70	4.54	(3.15)	(1.80)	(2.71)	(2.12)	49.18
1998-99	0.52	13.02	(10.38)	7.95	6.98	6.67	2.30	(0.37)	4.06	(0.48)
1999-00	8.41	13.73	(1.87)	(9.65)	(8.92)	4.62	(3.33)	2.63	17.36	(31.41)
2000-01	3.06	12.12	4.56	19.59	24.02	9.21	3.87	(11.30)	2.97	21.70
2001-02	5.09	20.09	(8.61)	7.24	(5.05)	(0.38)	2.70	(1.23)	3.85	9.84
2002-03	6.18	1.66	14.03	(6.75)	(10.42)	12.11	12.11	10.09	9.34	13.48
2003-04	0.73	17.39	8.87	15.10	12.22	7.80	18.60	2.22	14.11	9.09
2004-05	18.22	28.89	0.80	3.19	10.27	5.86	16.92	3.86	10.21	(23.10)
2005-06	11.66	0.61	0.61	9.37	4.98	5.08	13.03	7.19	6.11	(5.01)
2006-07*	11.98	6.99	12.79	1.52	4.14	(0.61)	21.11	1.71	11.61	19.60
*	July-March							Source: Fede	eral Bureau o	f Statistics

PERCENT GROWTH OF SELECTED INDUSTRIAL ITEMS

Note: Figures in parenthesis represent negative growth.