CHAPTER 5

FOREIGN FUNDED PROJECTS

Historically, external assistance has had a significant part in financing the capital expenditure in Pakistan. With time the share and the terms of assistance have changed. In the First Five Year Plan of !955 - 1960 the share of grants and grant like assistance was about 80 percent of the aid. In the decade of 1980s the share has reduced to 20 percent and the grants and grants-in assistance have been replaced by loans with harder terms putting Pakistan under heavy debt. In 1993-94 the outstanding foreign debt (more than one year period) reached 39.2 percent of the GDP. Debt service payments in this fiscal year are estimated in excess of US $ 1.8 billion, which is 3.0 percent of Pakistan's GDP.

Foreign assistance comes from three major sources. These are Aid-to-Pakistan Consortium, non-consortium countries and Islamic countries. In the past financial year 1994-95 the Consortium provided 83 percent of the total commitments (out of which 47 percent was on bilateral basis and 36 percent on multi-lateral basis). The non-consortium aid contributed to about 8 percent of the aid and Islamic countries gave approximately 5 percent. The rest of the aid came as relief assistance for the Afghan refugees.

The use of aid commitments is shown in Table 5.1. In 1993-94 project aid was 90 percent of the total aid commitments which is a 52 percent increase over 1993-94. The non project aid to Pakistan, except the relief assistance for Afghan refugees, has reduced significantly.

TABLE 5.1
USE OF AID COMMITMENTS

	1993-94 ($ mill.)	1994-95 ($ mill.)	Change %
Project Aid	1,822	2,785	52.8
Non-Project Aid	759	315	-58.5
• Non-Food	411	63	-84.7
• Food Aid	329	202	-38.6
• Relief Assist. for Afghan Refug.	19	50	163.2
Total	2,581	3,100	20.1

Source: Economic Affairs and Statistical Division, GoP.

5.1 THE PROJECT PLANNING CYCLE

The success or failure of a project depends on number of factors. In Pakistan the typical project, in collaboration with the government, goes through the necessary five stages, which are:

- Project Identification:
- Project Preparation:
- Project Authorization:
- Project Implementation; and
- Project Evaluation

All these five stages are interconnected and form a chain. The weakest link in the process determines the strength of the project.

There are several problems with the project identification and preparation process in the system. Usually, lack of involvement of the project area authorities makes the identification and planning process less than ideal. Identification and project planning is done on a federal level with very little input or involvement of the beneficiaries. Many a times there are strong political factors that play a role in the process and makes the projects ineffective. A project with foreign assistance can overcome this by employing its own experts or local consultants in the process and making sure that the project is indeed beneficial and does address the important issues.

Project Authorization's biggest problem is that of time delays. The approval from federal and provincial authorities and other government development departments and Executive Committee of the National Economic Council (for projects worth over Rs. 100 million) may take very long but such delays cannot be avoided and must be taken into account in project planning. Lack of such consideration may result in a situation in which the project costs escalate or the period for the availability of funds (financial year) may lapse.

Project implementation has so far proven to be the weakest link in the chain. The implementation usually involves construction and installation of equipment. This has been a source of serious problems in many development projects. Usually the government commits to partially fund or provide land for the civil works. The approval and release or the simple shortage of such funds have thrown several projects years back. Cost escalation necessitate the request for increase in the funds and starts a vicious cycle with the Finance Division that may be one of the most frequent reason for the failure of development projects.

Project evaluation is a part of the chain that is most neglected. The provincial departments rarely carry out such activities and even if there are evaluations there is no system that would carry any benefit of such evaluations for the planning of future projects. The bilateral and multi-lateral funding agencies therefore choose to do their own evaluations and backstopping. These activities

are carried out with the help of consultants which the agencies commission themselves.

5.2 PRESENT STATUS - LISTING AND DESCRIPTION

There are about 40 foreign funded projects in the industrial sector a listing of these projects is attached in Annexure 8. This Annexure gives a brief description of the project and the beneficiary institution. It also states the period, donors, the amount and type of commitments. Some recently started projects have not been added as the information on these as not available.

There are a couple of projects that intend to help the planning of industrial development that include making an industrial database and development of a national scheme for Industrial training. Other technological research projects are in automobiles, minerals (ores), engineering, machine tools, petroleum refining, synthetic fiber, plastics, precision investment casting, leather, and testing facilities.

In support services there are projects to develop national consulting services, and umbrella type lines of credit for industrial projects. There are several projects that address the needs of the small scale industries. They range from development of small scale metal industry to leather and cottage electronics industry.

The lack of emphasis and direct attention given to the large and medium size industry is noticeable. The only projects in this sector are in the Heavy Foundry & Forge, Expansion of Pakistan Steel and Daudkhel Fertilizers.

5.3 NEED FOR FURTHER ASSISTANCE

The number and the size of the development assistance from abroad shows that industrial development has not received its due attention. There is a tremendous potential and need for assistance from the developed countries. The next chapter discusses the future direction that Pakistan's industrial development needs to take and the areas where foreign technical and financial assistance would be invaluable to Pakistan particularly in the areas of quality improvement, material testing and promotional areas.

CHAPTER 6

RECOMMENDATIONS

A sound economy forms the basis for a stable political leadership and is a prerequisite for the independence of any state. The industrial nations sacrificed heavily and struggled for decades to achieve these goals. The developing nations are only at the beginning of this road which leads to a sound and stable political and economic cohesiveness.

The economic structure of each country e.g. U.S.A, U.K, Germany, Japan, Canada etc., has certain characteristics which are not the same. Each country's economy has grown on the condition given in each particular case to meet the demands which are different and just as the conditions and requirements of individual countries vary, so also do the means used in the development of the respective economic complex of a country. All industrial planning as a rule, deals with the following three questions:

- What are the conditions for industrial development?
- What demands/requirements have to be met? and
- What are the economically justified solutions?

Briefly, to answers the first question within the framework of general planning of a country is the easiest. The economy and industry of a developing country should be based on the use of consumption of domestic energy and raw materials so that they can be suitably adjusted to domestic demands, independent of any foreign exchange requirements as export obligations. Besides, these inputs ensure the uninterrupted supply of the country with vital products at times of international economic and political crises and are thus guarantors of independence of a country.

To answer the second question, extensive market surveys must be carried out with a view to finding out and specifying not only the present structure of national economy and the already existing demands, but also perceive forecasts and tendencies of future development.

The third question is a different one. Its answer requires exact knowledge of the technical and economic conditions and correct evaluation of the factors influencing them. The techno-economic general planning based on the findings of experts has to solve, inter alia, the following problems:

- To achieve maximum efficiency through minimum efforts;
- Economic development must be divided into stages - five years plans to achieves coordinated and integrated development in logical sequences.
- To develop supply services sectors e.g. transport, energy, water, etc. in a manner that they are available at right place at the right time;
- to achieve mental development of the population and create an environment of technical culture through mass education ; and
- To draw a financial time table. This financial plan must be revised from time to time to allow own contribution (instead of loans) that have become possible in the meantime. Such a plan is the foundation of a sound financial policy of the state.

As regards the best way to develop industry, opinions differ. Some experts suggest to establish first of all an appropriate basic industry thereby utilizing the raw materials available in the country. In this connection the iron and steel production is given preference because these metals are still the key materials of any industrial evolution.

Other experts consider the establishment of efficient small and medium sized industries the safest way to industrial development. These experts believe in Schumacher's slogan that, "small is beautiful". They also believe that an industrial manufacturer in small medium industries can make use of manual ability to a greater degree and thus reduces the economic risk of decisive change in the national economic structure.

On the other hand, some experts think that first of all an efficient machinery and steel construction industry should be set up because it is the products of steel that are particularly wanted during a development period of a country and that can save foreign currency when produced within the country.

Each of the above opinions can be supported by good reasons of their effectiveness. However, the fact is that there is no perfect method that can be adopted for every development problem. The solution can be focused only in studying the `prerequisites' and `conditions' of the country involved. Therefore, the above suggestions may seem too simplistic and one-sided. The correct solution lies in the happy blend of all the three opinions.

6.1 STRATEGIC PHASING OF INDUSTRIALIZATION

Developing countries which intend to develop their economies on the above scientific lines through phased development planning have been generally

successful when they followed, in broad outlines, the following three phased strategy (Table 6.1).

We have before us the example of Republic of Korea, a country which has successfully adopted the above strategy in industrial planning. But Korea's too would not have been a success story had the country's planners not recognized the importance of technological development as a key factor in national economic growth. From the very beginning of its planning activity, Korea employed science and technology (S&T), scientific education and technical and vocational training as important instruments for affecting national development policy.

TABLE 6.1
STRATEGIC PHASING FOR INDUSTRIAL DEVELOPMENT

PHASE -1	• Develop import substitute industries • Expand export oriented light industries • Support producers goods industries.
PHASE -2	• Expand heavy and chemical industries • Shift emphasis from capital import to technology import • Strengthen export oriented industry 's competitiveness.
PHASE -3	• Transform industrial structure on the basis of comparative advantage • Expand technology intensive industry • Encourage manpower development and improve productivity of industries.

For example, in the first phase S&T strategy was to strengthens S&T education, to build technological infrastructures and to promote foreign technology import. During this phase, the Ministry of S&T, a central government body, was established to undertake S&T development. S&T promotion law was enacted and Korea Institute of S&T later became the Korea Advanced institute of S&T (KAIST). In the second phase, technical and engineering education was strengthened in heavy and chemical industry fields, improving the institutional mechanism for adapting imported technologies and promoting research to meet industrial needs. The strategies were to support Nation's effort to expand the heavy and chemical industry. Consequently, Government-supported specialized research institutes were set up in the fields of machinery, shipbuilding, marine science, electronics, computers etc. Technology development promotion and engineering development promotion laws were enacted in the third phase of industrial development in Korea. Development and acquisition of high level scientists and engineers were sought by adopting extensive policy which includes reinforcement of graduate school education, expansion of overseas training programmes and the repatriation of experts abroad.

Korean model has been discussed in some detail because of the relevance of S&T to the successful industrial development in any country and which is so far

neglected, ignored or considered unimportant in the development plans of most of the developing countries including Pakistan.

6.2 RECOMMENDATIONS

Following are the broad based recommendations based on the findings of this study:

- Top priority should be given to the development of S & T Schemes/Projects pertaining to:
  - Technical education and manpower planning;
  - R & D and policy support for R & D ;
  - Quality Assurance policy, standardization and testing;
  - Environmental considerations and
  - Development of engineering services. etc.

- Large numbers of technical and vocational institutes should be set up to cater to the manpower requirement of future industrial development.
- Enterprises should also run their own training centers or send their employees to training centers at company's expenses. Otherwise, they may be forced to pay a fee under law.
- Graduate Courses of S & T and engineering should be strengthened. Advanced Institute of S & T should be established under law to plan expanded courses for Ph.D. and Masters. This Institute should also arrange programs of research in collaboration with foreign universities.
- Scientists and engineers should be encouraged to return home to supervise research projects.
- Training in advanced research in foreign countries should be accelerated.
- Various Research Institutes should be set up in the fields of :
  - Energy;
  - Standards;
  - Machinery and Metals;
  - Electro-technology and communications;

- Chemical technology;
- Electronics;
- Computer and semi conductors; and
- Pollution control and food safety; etc

- Technology Development Law to be promulgated providing various incentives and financial support e.g.:

  - Technology funds should be exempted from taxes.
  - Special depreciation to be permitted for R & D and testing equipments.
  - Long term, low interest bearing funds to be created for technology development.

- Large scale companies to undertake research activities and small companies to form research consortia for carrying out research.
- Extensive support to small scale industry to be provided both financial as well as technical.
- Technology Development Center to be set up to undertake:

  - Technology Transfer;
  - In-house R & D;
  - Commercialization of resources; and
  - Local development of technology.

- International technical cooperation to be sought on equal terms and not as aid.
- Frequent and meaningful participation to be made in internationally/UN organized technology programs.
- Technology culture should be promoted in the country by creating a favorable climate in the field of S & T.
- Many small hydel units should be installed in Northern areas to take prosperity to that area.

- Arrangements should immediately be made for development facilities for ISO 9000 certification in order to boost exports.
- Development of CNC machine tools, hydraulic machinery and controls or process industries should be pressed.
- Mineral based industries should be developed to make the country self-sufficient in raw material.
- Foreign collaboration should be sought in the fields of :

  - Environment
  - Nuclear Power Plants
  - Food Industry
  - Advanced material
  - Chemical technology
  - Engineering industry
  - Quality assurance
  - Electronics
  - Computer technology etc.

6.3 RECOMMENDATIONS IN THE AREA OF QUALITY CONTROL

The government through the Ministry of Science and Technology has approved the MSTQ system. The concerned institutions have been integrated under the PSQCA. The process is underway to include the CTLs which are still attached to the Ministry of Industries and Production.

In view of the need of quality control, standards, and testing requirements for Pakistani products the consultants have prepared a list of projects that could best help Pakistan's industries. Instead of using a top down approach, it is proposed that necessary assistance be given directly to where it is needed the most.

Before a project is picked up a detailed study needs to be done to assess its viability, benefits, cost etc. The recommendations are as follows:

6.3.1. GRADING LABORATORIES FOR RAW MATERIALS:

This concept has already been tested in the case of Cotton in Pakistan by the Pakistan Cotton Standards Institute that has come up with standards for grading raw cotton. It also trains experts to grade cotton according to the recognized standards. This activity has helped the exporters to fetch higher prices for good quality cotton. It also give incentives to the producers to produce better products as the prices now are related to the quality. Such laboratories need be set up for other raw materials including.

TABLE 6.2

CREATION OF GRADING LABORATORIES FOR RAW MATERIALS

OBJECTIVE:	To grade raw materials for export and use in the local industry.
SCOPE:	Such laboratories could be set up for other raw materials including: – Leather (Hides and Skins) – Wool – Manmade Fibers – Rice – Minerals – Wood Jewels/gems etc.
ADVANTAGES:	☐ Exporters can fetch better prices for higher quality xports. ☐ Producers will have an incentive to produce better quality materials ☐ Users of the materials will be able to control their production
POSSIBLE PARTNERS:	Respective Trade and Industry Associations Chambers of Commerce & Industries Training Institutes set up by the Export Development Fund
DURATION:	2 years
LOCATION:	Selected Industrial Clusters

6.3.2 TRAINING PROGRAMS IN QUALITY CONTROL

Industry specific quality control training could be given to several industries. The trade and industries associations will be the best vehicle for the information to be carried to the producers. These training programs may be for both the management and supervisors of the production facilities.

TABLE 6.3

TRAINING PROGRAMS IN QUALITY CONTROL

OBJECTIVE:	To promote quality control in specific sub-sectors.
SCOPE:	To give industry specific quality control training to several industries These training programs shall include both the management and supervisors of the production facilities.
ADVANTAGES:	☐ Manufacturer can learn methods to improve quality, as such training is not available in the country. ☐ The information and training will be given directly to the decision makers and controllers of the production process.
POSSIBLE PARTNERS:	Respective Trade and Industry Associations Chambers of Commerce & Industries Training Institutes set up by the Export Development Fund
DURATION:	3-5 years
LOCATION:	Selected Industrial Clusters

6.3.3 MATERIAL TESTING LABS AND QUALITY TESTING SYSTEM

Material testing labs need to be established in industries that are particularly affected by the lack in quality. Example of such sub-sectors is cutlery, surgical instruments and light engineering. A detailed study needs to be undertaken to assess the problem areas and means to help them

TABLE 6.4

MATERIAL TESTING LABS AND QUALITY TESTING SYSTEM

OBJECTIVE:	To set up material testing labs.
SCOPE:	Set up material testing laboratories for selected sub sectors where these laboratories are required for e.g. Cutlery, Surgical Instruments, and light engineering.
ADVANTAGES:	☐ Producers will have an incentive to produce better quality materials ☐ Users of the materials will be able to control their production ☐ Manufacturers of these raw materials will be able to produce better quality.
POSSIBLE PARTNERS:	Respective Trade and Industry Associations Chambers of Commerce & industries Training Institute set up by the Export Development Fund
DURATION:	3-4 years
LOCATION:	Industrial Clusters depending on the selected industry.

6.3.4 COMMON FACILITY CENTERS

Setting up common facility centers and providing technical assistance to them is another area where definite help and assistance is needed.

TABLE 6.5

COMMON FACILITY CENTERS FOR SUB-SECTORS

OBJECTIVE:	To set up common facility centers for various industrial sub-sectors.
SCOPE:	To carry out a study to identify sub sectors where these centers are required and to determine what facilities need to be provided.
ADVANTAGES:	– Producers can collectively use facilities that they could not afford individually. Procedures will have a place to address their common problems
POSSIBLE PARTNERS:	Respective Trade and Industry Associations Chambers of Commerce & industries Training Institute set up by the Export Promotion Fund
DURATION:	2 years
LOCATION:	Industrial Clusters

6.4 RECOMMENDATION FOR INDUSTRIAL PROMOTIONAL AREAS

Due to the uncertainty that surrounds the fate of these areas (SIZs and EPZs) the consultants feel that this is not an area that JICA should look into without getting the right guarantees from the Government. The locations of the SIZs have changed a couple of times and the only one year old sanctions to the areas have also been withdrawn. It is recommended that the suitability of the SIZs be studied in detail, firstly to ensure that areas are indeed suitable for setting up industry in terms of the different factors discussed in chapter 3. And secondly, that these areas will remain a part of the governments plan to develop industry.

ADDENDUM TO THE REPORT

ADDENDUM TO THE REPORT

This addendum is an attachment which contains the answers to the questions raised by JICA. Islamabad. It also contains some additional information requested. The letter requesting the comments is attached as a reference. The page and/or section numbers are given as the reference for comparison with the letter.

CHAPTER 2: INDUSTRIAL POLICY - A SECTORAL PERSPECTIVE

Page 2-2

During the first plan period (1955-60), the industrial sector grew at a very high rate (34% during 1955-56 and about 16% upto 1960). The growth was attributable to the low industrial base of the country at the independence.

During the second plan period (1960-65), the industrial sector grew at 16% of GNP during most of the period and fell to 8% in 1965 because of war with India.

In both the plans no special incentives were provided to the industrial sector but emphasis was placed on the import substitution and the industry grew under highly protected domestic market because of tighter control on import of consumer goods. During this period Pakistan Industrial Development Corporation (PIDC) provided lead in the establishment of industrial units in the field of jute, sugar, cement and paper and paper board. PIDC was conceived to play the role of a catalyst and once the units became viable, they were to be transferred to the private sector. During this period PIDB and PICIC, two financial institutions also played a significant role in industrial development by meeting credit requirements of private investors. In order to create skilled human labour to facilitate industrial growth during this period, a Swedish Pak Institute of Technology was established. Pakistan technical Assistance Centre (PITAC) was also set up in 1957 in collaboration with UN/US Aid Mission.

The war with India in 1965 resulted in reduction in external aid, a shortfall in public sector development expenditure and shift in plan priorities in the third plan period (1965-70). Because of the sharp contrast between Pakistan's vast natural and raw material resources and slow industrial growth since 1965, the shift in plan policy from consumer goods to producers goods manufacturing was imminent. A country producing nearly 75% of the world jute did not possess jute mills; production of millions of good quality cotton bales remained unutilised because of lack of in adequate number of textile mills. There were abundant production of hides and skin, wool, sugarcane and tobacco which the industry could utilize. Pakistan's considerable resources in mineral, petroleum and power remained untapped. The primary reason for the lack of the underutilization of these material resources has been Pakistan's dependence of imported capital machinery and equipment. It was, therefore, about time that the local capabilities for the manufacture, of plant and machinery engineering and capital goods were created to enable the country become self-reliant in the field of producers (capital) goods. As a result of this policy

shift, heavy engineering units were planned to be set up in the country. Pakistan Machine Tool Factory, Heavy Mechaniced Complex, Heavy Foundry and Forge, Heavy Electrical Complex in public sector and host of engineering units in private sector emerged on the scene. For the growth of automotive sector, tractors, trucks/buses and cars/vans, units were also planned to be set up.

As a result of the above policy, Pakistan in later years was able to produce locally 30% - 80% of industrial plants; (cement plant 50%, fertilizer chemical plants 40%, sugar plants 80%; gas processing plants 40%; power plants - boilers, structure etc. 25% etc..) In addition to these, electric overhead travelling cranes and other material handling equipment, industrial boilers and pressure vessels,, road rollers (static as well as vibratory) and other road building machinery; railway carriages, axles, screw couplings and draw-looks, electric transmission and distribution towers, high voltage power transformers and switch gears and host of engineering goods are now being produced locally both in public as well as private sector. In the automotive sector, Massey Ferqusson, FIAT, Belarus Tractors, Hino Trucks, Suzuki, Honada Cars/Vans and at least 3 models of two wheelers are also being produced locally with the support of well organized vendors network. As a result of this policy and with the availability of local pant and machinery, some of the industrial sectors (e.g. sugar, cement, automotive etc.) grew very fast in later years.

Page 2-5

During the seventiies the growth rate of GDP showed a decreasing trend. It fell to 4.84%. The manufacturing sector growth rate was also low due to policy of nationalization of industry under ERO of 1972. Growth rate of manufacturing sector dropped substantially to 5% annually during 1972-73 to 1979-80 which was the consequence of nationalization policy followed by the Government.

The nationalization of industry in 1972 and continued political upheaval in Pakistan affected the industrial growth adversely It was only in the year 1990 that government formulated a policy which has the following three important components.

- ◎ Deletion
- ◎ Deregulation
- ◎ Privatization

This policy is being followed till recently by the Government and has been dealt with in the report.

Under ERO 1972, Government took over the management of 32 industrial units belonging to following basic sectors:

- ◎ Iron and Steel
- ◎ Basic Metal
- ◎ Automotive
- ◎ Heavy engineering
- ◎ Heavy and basic chemicals

- Petro-chemical
- Cement
- Public utilities including electrical generators, gas, oil refineries.

The nationalized companies and units were put under the newly created Board of Industrial Management (BIM) and the following 10 holding companies/corporations:

- Federal Chemical and Ceramics corporation
- Federal Light Engineering Corporation
- National Design and Engineering Services Corporation
- National Fertilizers Corporation
- Pakistan Automobile Corporation
- Pakistan Industrial Development Corporation
- Pakistan Steel Mill Corporation
- Heavy Engineering and Machine Tool Corporation
- Pakistan Petrochemical Corporation

These corporations were partly financed by the Government and partly by National Development Finance Corporation (NDFC).

Later, 26 industrial units producing vegetable ghee were also nationalized. The shipping industry was nationalized in 1974. In July 1976, the Government took control of some agricultural processing industries. These included cotton ginning, rice husking industries and large flour mills.

The immediate impact of the nationalization of 1972 on the investment climate was negative An atmosphere of distrust prevailed in the market which led to the winding up many private enterprises and flight of capital from the country. With the reduced role of private sector in industrial development, the growth rate of large scale manufacturing declined substantially as shown below:

GROWTH RATE OF MANUFACTURING IN PAKISTAN (WEST)

LARGE SCALE	PERCENT
1949-50 to 1954-55 (5 years)	23.6
1954-55 to 1959-60 (5 years)	7.7
1959-60 to 1964-65 (5 years)	16.9
1964-65 to 1969-70 (5 years)	9.9
1972-73 to 1976-77 (5 years)	1.5
1976-77 to 1981-82 (4 years)	9.4
1981-82 to 1988-89 (7 years)	7.1
1989-90 to 1993-94 (4 years)	5.35

The nationalization led to a period of stagnation and slide back in the economy. The industry's physical perormance was very poor. Public sector investment was very high, short term borrowing increased substantially with the results that many new

projects remained incomplete and most of the operating industrial units burdened with accumlated losses and liabilities. Few of them closed down.

Page 2-6

The trend towards deregulation, privatization and liberalization did start from the onset of the decade. At the time it was thought that the private sector needs to be actively involved in Pakistan's development. The private sector responded very quickly to the changes in the regulatory regime. Prime examples of the trend are the Banking Finance and Capital Markets. The industrial sector did not respond as quickly and the rise in the foreign or local direct investment was not significant. The private sector industrialist were still examining the environment because of the experiences they had in 1972. The revived democracy made the political scenario and the law and order situation too unstable for major investments to be made and also many planned investments had delays in commissioning because of the frequent changes of governments.

CHAPTER 3: INSTITUTIONAL FRAMEWORK FOR INDUSTRIAL DEVELOPMENT

SECTION 3.2

The Ministry of Industries does provide consolidated data on industrial development in Pakistan. The performance of the ministry in this respect is much below satisfaction. Census of Manufacturing Industries has not been published since 1991. Also getting specific information is usually very difficult if not impossible at times. UNDP has undertaken a project to strengthen the Pakistan Industrial Information System. This has just started the concept of an industrial database but its utility to users outside the ministry is not much. The situation will not improve by handing over the responsibility to another Government Agency or Department because the performance would be much the same. Involvement of the private sector may help the situation in different sub-sectors. Agencies publishing syndicated data or other sectoral reports may improve the availability of information.

SECTION 3.5

The problems facing SIZs were discussed after the presentation, which included the suitability of the areas for setting up industries and the withdrawal of the incentives that were given to attract investment into areas that have not traditionally evolved as industrial areas. The linkages for coordination of the EPZA and BOI are the smallest of the problems faced. As the report says that EPZA already works under the Ministry of Industries and Production and the BOI will work as an independent department of the ministry. A more suitable link cannot be made between the departments. EPB is an attached department (to be converted into an Export Division) of the Ministry of Commerce and is physically located above the MoI&P and enjoys very close links with it.

SECTION 3.7

The role of the Chambers of Commerce and Industry has said to be important because it represents the Industry of Pakistan. It not only lobbies for industrial development but also provide feedback for the implementation of the policies. It also forms the consultative groups that help policy formulation. Hence industrial development and policy making cannot function without the participation of the Chambers. Whether or not the Chambers have been successful in providing a cushion for their members through the government they are the only option for firsthand contact with the industry.

CHAPTER 4: INDUSTRIAL QUALITY CONTROL - STATUS AND REQUIREMENTS

SECTION 4.3:

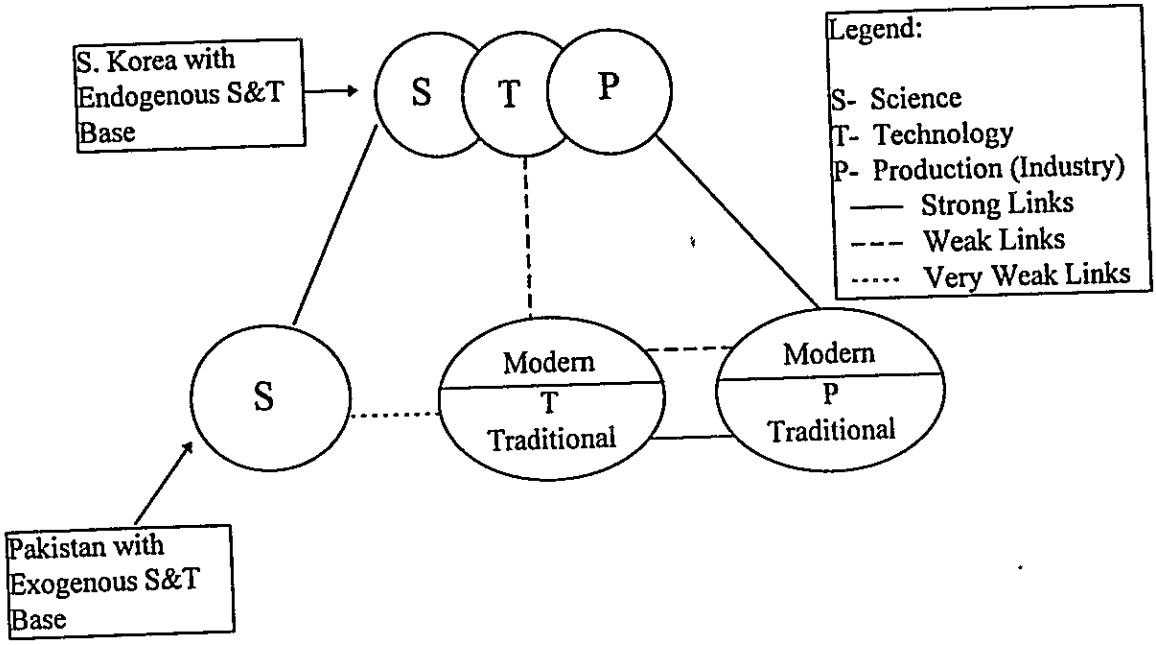
The problems faced by the PSQCA are numerous. First of all the PSI, CTLs and NPSL do not have the physical facilities and equipment to undertake the work that it is supposed to do. Secondly, these institutes do not have the technical know how to conduct the activities. They need the researchers, scientists and other experts to fulfill the goals. At the same time the institutions also do not have the funds for the operating cost, maintenance, updating and to hire the experts that the PSQCA will require.

Technical or financial support in any of the mentioned areas would help achieve the GOP's goals. The reason that the consultants did not suggest any project here is that a project that will actually show results in industrial quality control will be far too big for JICA to undertake and it will last for several years. The institutional strengthening of the NPSL, PSI and CTLs will require massive funds, and even then it would not be beneficial unless the right expertise are available at a permanent basis and there are funds to cover the operation costs of the PSQCA.

CHAPTER 6: RECOMMENDATIONS

There appears to be fundamental differences in S&T Systems in S.Korea and Pakistan. In S. Korea (as of course in Japan), the evolution of scientific activity has led directly to, or linked with advances in production techniques. In Pakistan, S&T is often, for various reasons, not related in any significant way to productive activities. S. Korea might thus be described as possessing an endogenous S&T base, and Pakistan as having an exogenous S&T base.

The relationship between Science, Technology and production (industry) in both the countries can be graphically described as under:

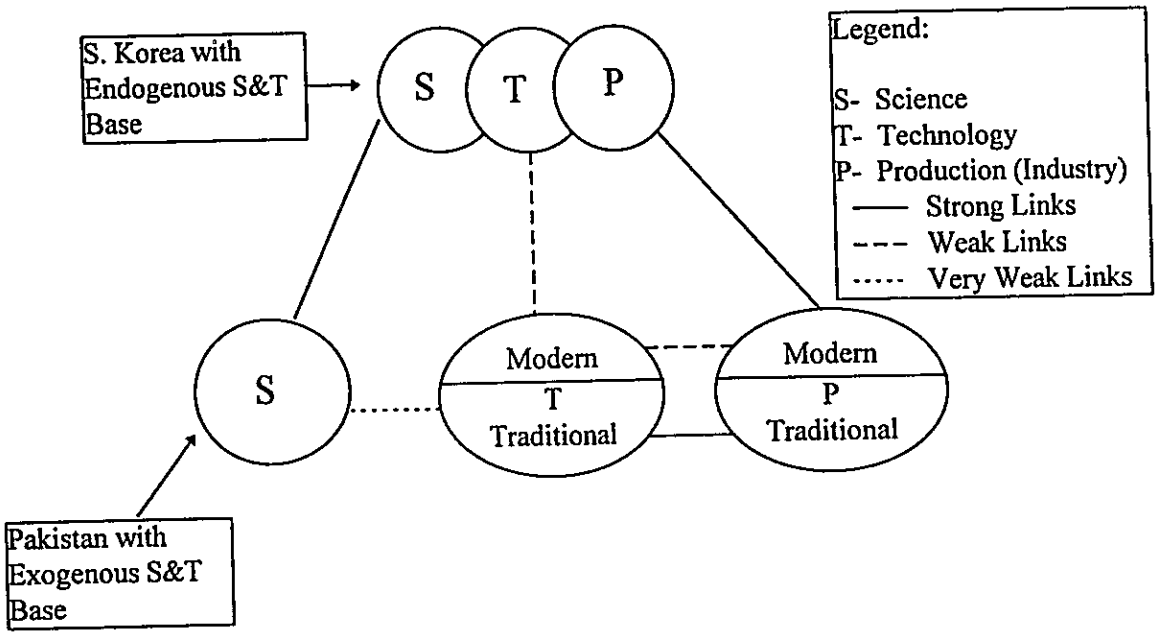


S&T Systems in Pakistan are frequently 'underdeveloped'. The existence of individual components, sometimes, like science and technology institutions, artificially created does not constitute a system. Systems can be feasible and durable when they are linked through feedback effects that form closed loops as shown in the diagram. Such system only can effectively ensure strong linkages and develop decision making capabilities that can mobilize the system itself and harness it for the purpose of national development. This, in term requires the existence of political leadership convinced of the importance of S&T system. Pakistan is lacking in every aspect of S&T development if compared with S.Korean model and which has been explicitly described in the diagram. In Pakistan, all the components of S&T do not exist in true sense, the linkages are weak, ineffective and sometimes non-existent. Here, decision making capabilities need to be strengthened and leadership convinced of the role that the S&T systems play in the attainment of development goals.

On the other hand, the rationale of the Korean model is export orientation, foreign investment, foreign technology and foreign management know-how transfer in the first phase, leading to what might be called "outward-oriented dependence". In the second phase, on the basis of the expertise gained during the first phase, the model becomes more international and delinking takes place.

R&D PROJECTS

"The list of Project recommended by the NMC may be the best recipes in setting a course for correcting the shortcomings in improving the present situation but these are only a piecemeal remedy for countering the enormous multi-faceted problems confronting the country in the industrial development.



S&T Systems in Pakistan are frequently 'underdeveloped'. The existence of individual components, sometimes, like science and technology institutions, artificially created does not constitute a system. Systems can be feasible and durable when they are linked through feedback effects that form closed loops as shown in the diagram. Such system only can effectively ensure strong linkages and develop decision making capabilities that can mobilize the system itself and harness it for the purpose of national development. This, in term requires the existence of political leadership convinced of the importance of S&T system. Pakistan is lacking in every aspect of S&T development if compared with S.Korean model and which has been explicitly described in the diagram. In Pakistan, all the components of S&T do not exist in true sense, the linkages are weak, ineffective and sometimes non-existent. Here, decision making capabilities need to be strengthened and leadership convinced of the role that the S&T systems play in the attainment of development goals.

On the other hand, the rationale of the Korean model is export orientation, foreign investment, foreign technology and foreign management know-how transfer in the first phase, leading to what might be called "outward-oriented dependence". In the second phase, on the basis of the expertise gained during the first phase, the model becomes more international and delinking takes place.

R&D PROJECTS

"The list of Project recommended by the NMC may be the best recipes in setting a course for correcting the shortcomings in improving the present situation but these are only a piecemeal remedy for countering the enormous multi-faceted problems confronting the country in the industrial development.

A PRACTICAL STRATEGY FOR R & D INVESTMENT SOURCE

Current Situation

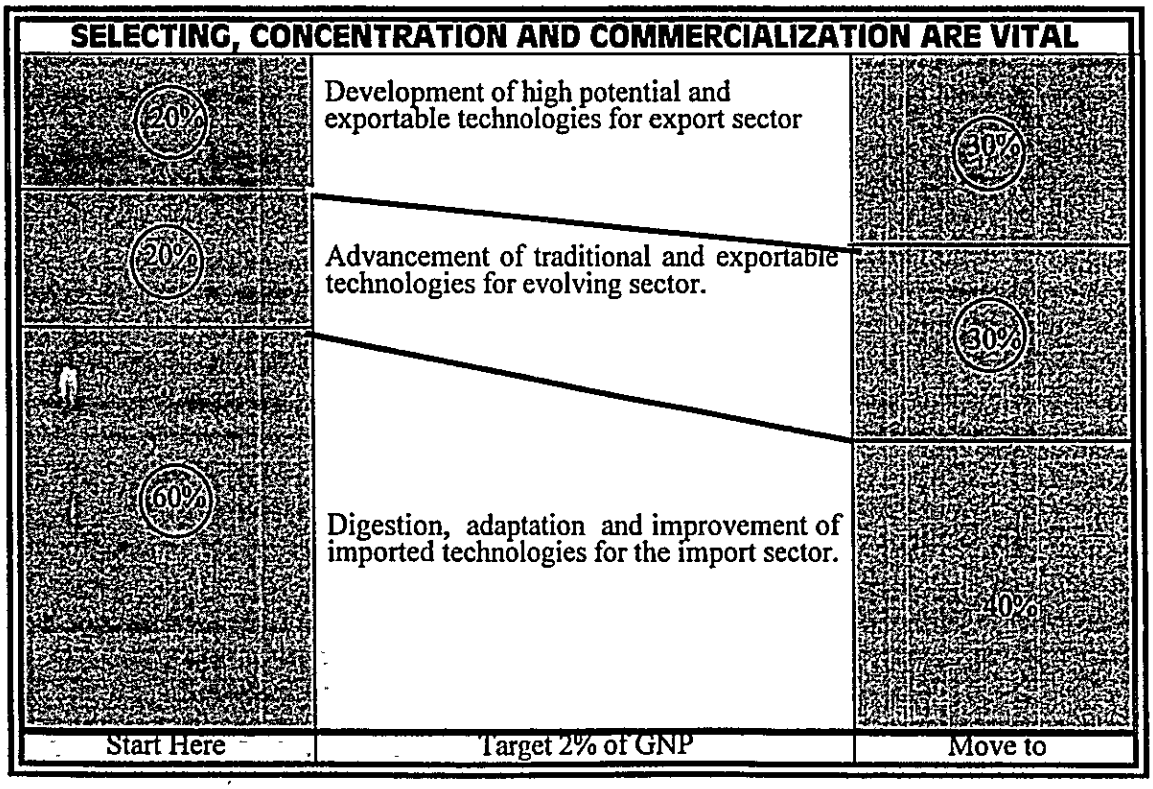
Developed Countries Spend 2-3% of GNP for R&D

Developing Countries Spend 0.1% of GNP on R & D

In absolute terms 2.5% GNP of an average developed country is more than 40 times 0.5% of the GNP of an average developing country.

Moreover, the little money that is spent by developing countries on R & D is spread too thin into a very large number of activities of the public sector with very little commercialization.

Possible Strategy



Taking guidance from the above chart, following R &D Projects are proposed to be undertaken in Pakistan. Two factors would, however, detrimine the viability

(sustainability) of these projects. One is that the Projects would have to be supported (financed) through public sector sources; and the second factor is the range/scope of the projects. As a late starter in R & D field, Pakistan cannot afford to spend heavily on basic RESEARCH. The projects will, therefore, be limited to development of modern technologies and creation of capabilities, through transfer of technology, to improve existing products/processes and production of new products with high quality standard:

OBJECTIVES	R & D ACTIVITIES
1. Metal Working Technological Self-reliance	♦ **MATERIALS** • Widening raw material base • Alternatives of metal and alloys (ceramics, compositers and polymers, synthetic fibbers) • Anti-corrosion (refractory coating, iron implantation, electron beem and laser treatment) • Special alloy steel, construction material ♦ **HEAT TREATMENT** • Improved sensors for control • Heat treatment processes for cast iron, tool steel, stainless steel, heat resistance and super alloys, non-ferrous alloys and refractory materials. ♦ **WELDING** • New techniques (Solid state, explosion, forge, cold welding), • Welding of Plastics • Welding underwater and for cryogenic services • Quality control of welding of stainless steel, non-ferrous, high temperature materials, alloy steels • Powder metallurgy • Corrosion ♦ **SURFACE ENGINEERING** • New processes in dip, barries, (chemical conversion, vacuum and controlled atmospheres coating, thin film testing. • Environmental issues. ♦ **FORMING AND FORGING** • Carbon alloys, stainless steel, heat resistance alloy forging • Cold extrusion

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OBJECTIVES	R & D ACTIVITIES
	• Computer aided processed design for bulk forming etc..
	♦ CASTING • Liquid metal process • Centrifugal casting • Investment casting • Computer analysis in metal casting ♦ MACHINE TOOLS • Computer application in machine tools • High alloys machining processes • Friction, lubrication and wear technology
2. ENERGY • Efficient use • Renewable source • Lower costs	• Coal utilization including gasification • Solar, wind, bio-mass • Nuclear power • Energy saving
3. ENVIRONMENT • Elinmation Pollution • Safety against toxic Waste • Healthy Environment	• Industrial waste purification • Treatment sewage sludge • Incineration • Bio-production of fuel • ECO system analysis, renewable source management
4. MICRO-ELECTRONICS • Technological self-reliance	• Semiconductors • Silicon and other electronics materials • Micro-processors and instrumentation • Electo-medical equipment • Thyristor control industrial devices
5. COMMUNICATION • Increase productivity of information and communication	• Satellite technology • Infra-red and micro-wave technology • Accoustics Engineering

GENERAL COMMENTS

The industrial development scenario, so far, has unfortunately been bleak. This does not in any way indicate that Pakistan does not posses the potential to become an industrialized nation. It is a country of over 125 million people that has numerous resources and cheap labour. It has the comparative advantages that have brought the other Asian nations like Indonesia, Korea and China in the forefront of industrial development. The new planning and strategies can however change the scene, favourably. What seemingly good policies usually lack is the political will that would help them be carried out as planned. This is something that is hampering the industrial development in Pakistan. Other very good plans have also not brought good results and it would be no surprise if the curre lans also meet the same fate i.e. they will be carried out to meet the bureaucratic ; work requirements.

OBJECTIVES	R & D ACTIVITIES
	• Computer aided processed design for bulk forming etc..
	♦ **CASTING** • Liquid metal process • Centrifugal casting • Investment casting • Computer analysis in metal casting ♦ **MACHINE TOOLS** • Computer application in machine tools • High alloys machining processes • Friction, lubrication and wear technology
2. **ENERGY** • Efficient use • Renewable source • Lower costs	• Coal utilization including gasification • Solar, wind, bio-mass • Nuclear power • Energy saving
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GENERAL COMMENTS

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The new strategies had been accepted well but have not shown the increase in industrial activity that one would expect. One reason for this is the air of uncertainty that still exists in the mind of the industrialists. For example the SIZ locations have been changed and the sanctions promised to industries in the Export Promotion Zones and Special Industrial Zones have been withdrawn. Such act of the government reinforces the lack of confidence in the mind of the investors who simply do not trust the Government's actions and hence shy away from making major investments on the basis of incentives given by the Government. Therefore the Governments expectation of the private sector contributing to the industrial development will obviously not be met. The Government has to show its commitment first by strengthening its institutions that will help the industrial development in Pakistan and following its policies consistently to gain the confidence of the private sector.

The transparency of the policy and procedures is highly questionable. None of the policies have had a time period to show results and therefore their sustainability is not a subject of concern. The development that has taken place so far is, however, sustainable and so is the seemingly natural growth rate which has shown very little response to the changing strategies of the past few years.

The strategies seem to be adequate so far the planning is concerned. The execution is a problem that cannot be remedied without a very strong political will of the leaders. The progress has followed a very steady path and has been affected more by political turmoil, shifts and the law and order situation than the policies of the government.

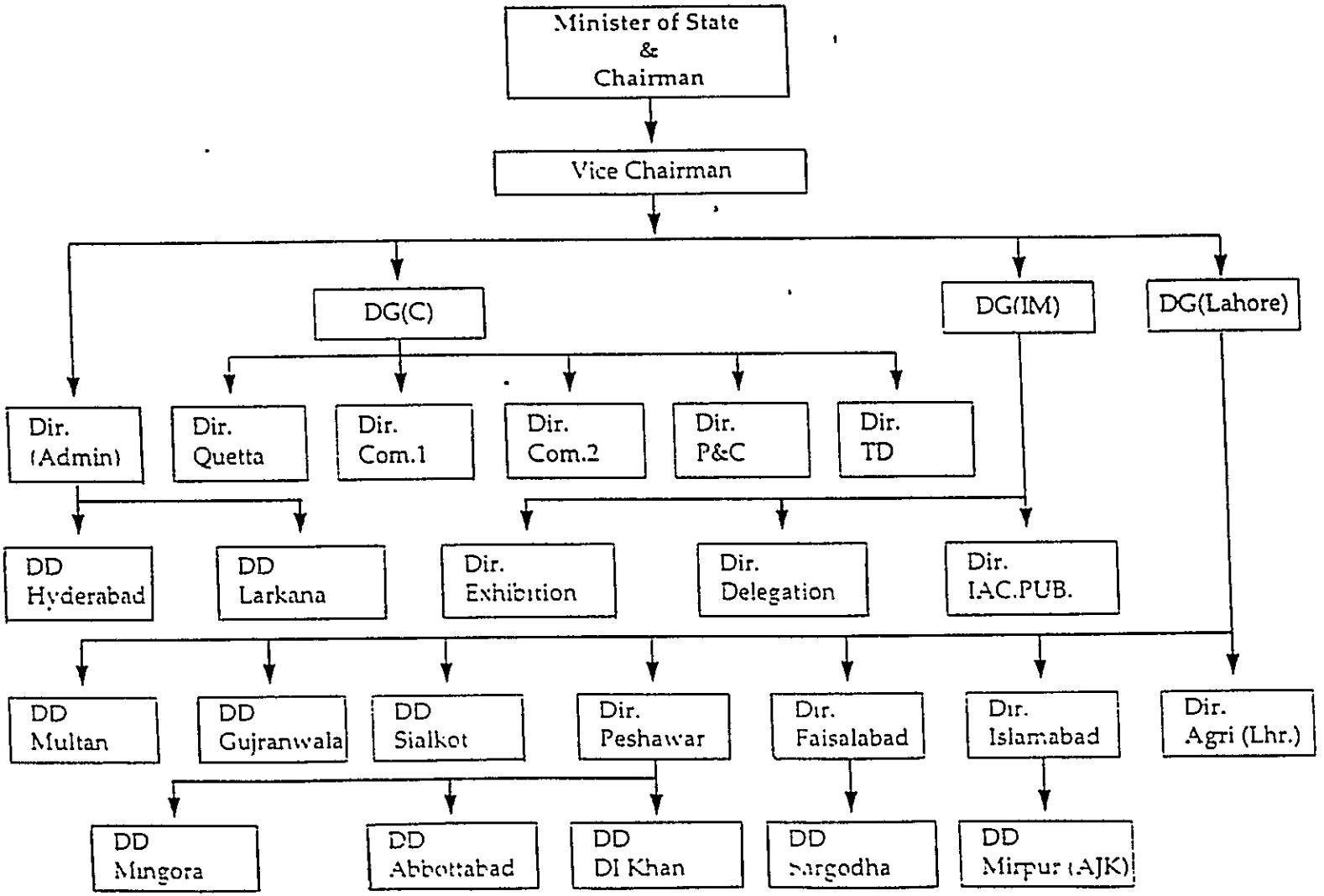
Other Questions

To achieve economic growth and to develop the country Pakistan needs increased economic activity. The traditional agricultural sector has been the main source of economic revenue generation for centuries. After the green revolution the sector has unfortunately saturated. The land in Pakistan does not promise a substantial increase in output to provide the income and employment generation that the country needs for its growing population and its further development.

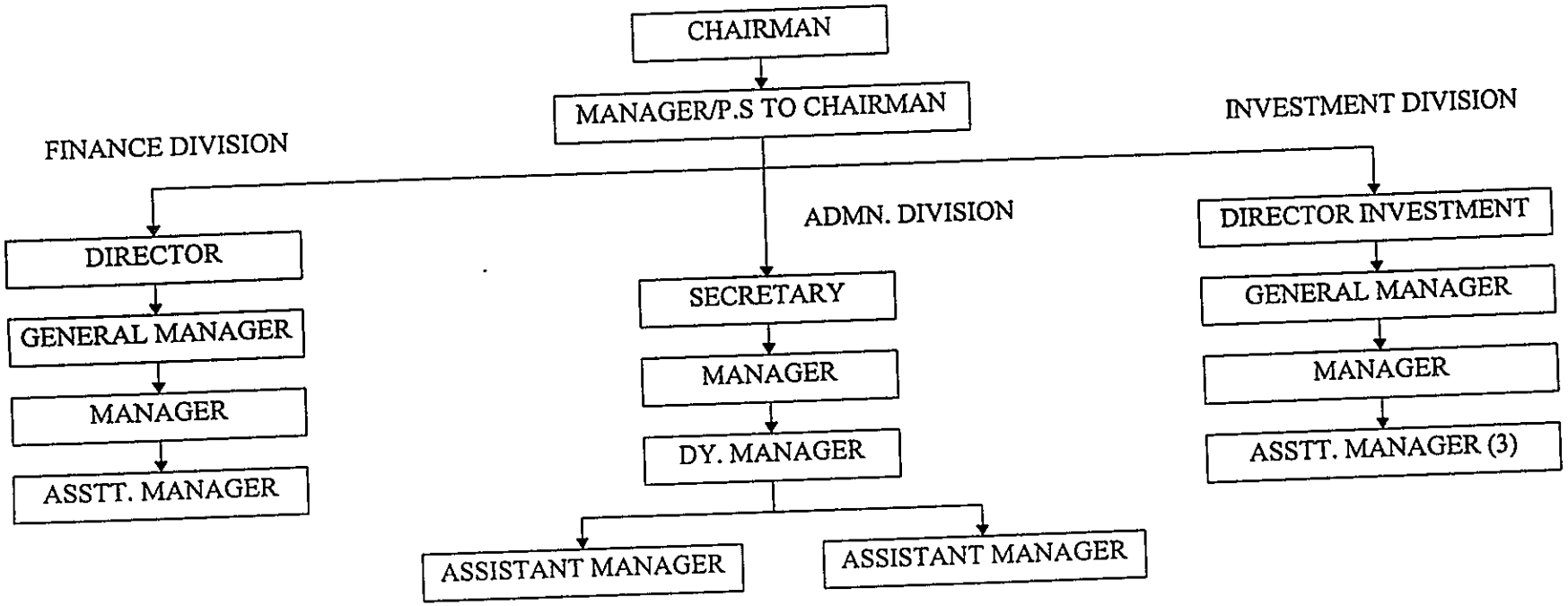
Tremendous potential that has not been exploited lies in the industrial sector. The availability of a very large labour force at very competitive prices makes Pakistan a good candidate for a developing industrial nation. The shift of emphasis on industrial development has been made because of the reasons given above. Industrial development cannot take place unless there is demand for the products. The industrial demand has not been created but instead the industry follows the demands of the time. This demand comes both from within and outside country.

The industrial development needs a boost because the country is lagging behind its potential contribution to the global market. The sooner it realizes its potential the sooner will it forge ahead in economic development.

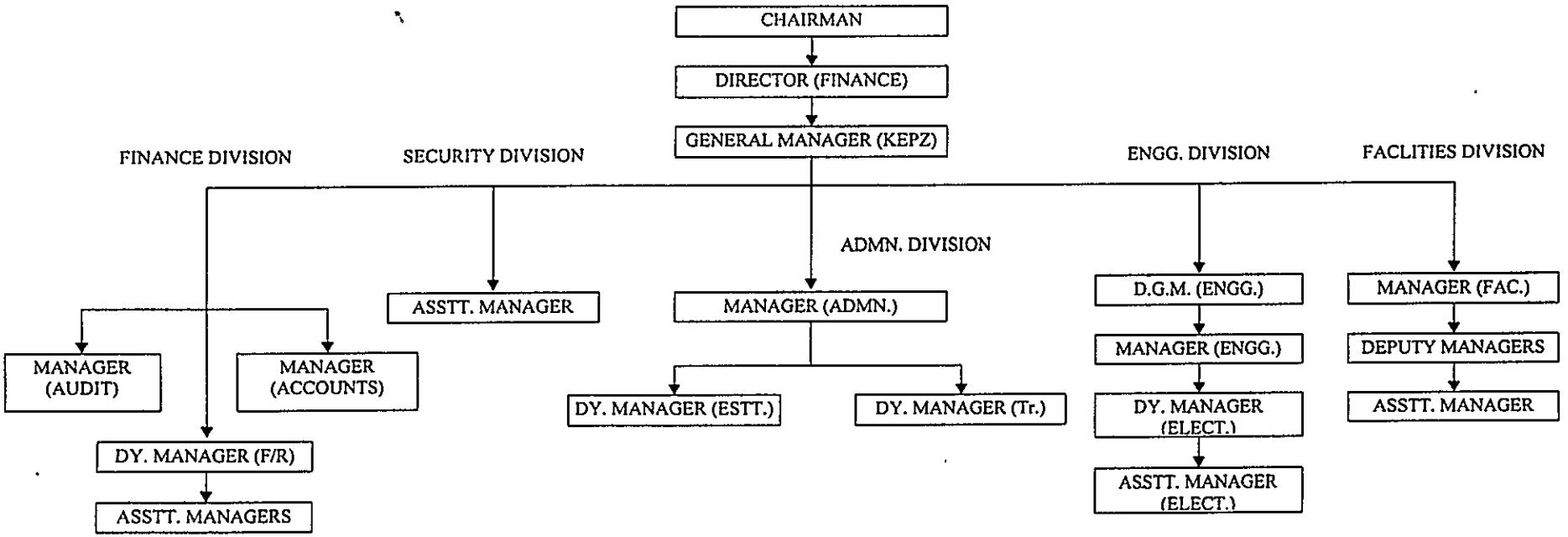
ORGANIZATIONAL STRUCTURE OF EPB



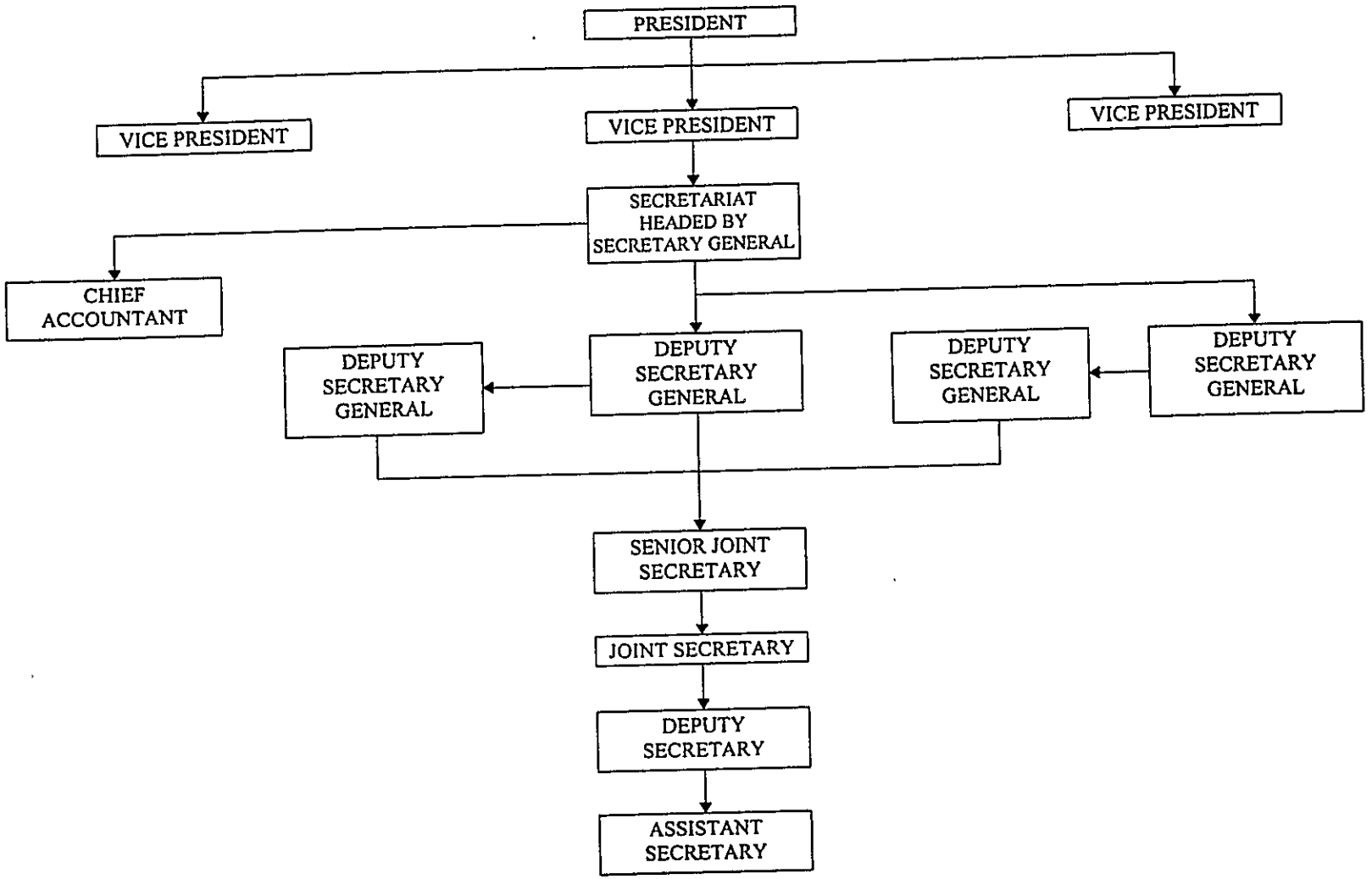
EXISTING EXECUTIVES SET UP IN EPZA HEAD OFFICE



EXISTING EXECUTIVE SET UP IN KEPZ



ORGANISATION STRUCTURE OF FPCCI



JAPAN INTERNATIONAL COOPERATION AGENCY

PAKISTAN OFFICE

JICA/0401/Admin/96

June 13, 1996

Dr Junaid Ahmed
Managing Director
National Management Consultants (Pvt) Ltd
No. 20, Street 17, F-7/2
Islamabad

Subject: JICA's Comments on 'Development Study on Industrial Development in Pakistan'

Dear Dr Ahmed,

Thank you very much for submitting the Final Report on Industrial Development in Pakistan. The Report was found to be very thoroughly compiled and provides a clear picture of the industrial development.

We are also grateful for the excellent presentation on the above study that helped us in understanding many issues which otherwise may not have been clarified.

After having studied the Final Report and listening to your presentation we have prepared a few comments that we hope would be looked into closely and if found appropriate included in the study to make it more comprehensible, coherent and graspable.

Following are JICA comments:

Chapter 2 Industrial Policy - A Sectoral Perspective

Page 2.2

Were any special incentives provided under the First and Second Five Year Plans during which accelerated growth was witnessed? At the same time you may like to give an analysis on the slow growth in the plans that followed?

Similarly what factors were responsible for the shift from consumer goods industry to Producer (capital) goods industry?

Page 2.5

What kind of impact did the nationalization of basic industries under ERO 1972 had on industrial output with management and decision making getting into the hands of bureaucratic managers. Moreover, did that change seemed to inflict a negative impact on the planning of strategies for industrial development?

Address: [illegible], F-6/3, [illegible] 1772, Islamabad Tel: 217[illegible] /410

Page 2.6
Though not part of the 7th FYP, some of the policy initiatives aimed at promoting private sector investment like deregularization, privatization and liberalization during the early 90's did have a positive effect on the private sector development. But no mention has been made in its contribution towards industrial development.

Chapter 3. Institutional Framework for Industrial Development

Item 3.2
It is true that with the onset of liberal reforms pursued by the previous and present governments role of the above Ministry has been reduced considerably. But do you think it would be a rational approach if the Ministry acts as a focal point for providing consolidated data on development activities to those interested.

Item 3.5
SIZ are still in a conceptual stage. But it is feared that the privileged role and status offered to SIZ under the BOI could isolate them from the mainstream industrial activity and hamper the actual implementation of its plans. Furthermore, it could become difficult to develop linkages for closer coordination amongst the SIZ, EPB & EPZA's reason being that BOI would be representing from a higher official pedestal. Could you please give more details on the anticipated role of SIZ, and the practical difficulties it is facing.

Item 3.7
An analysis is needed on how the Chambers have helped in providing the type of assistance for industrial development. It has been said in each case that the Chamber is important in Pakistan's industrial growth, but in what way, how and to what extent has it been able to contribute in qualitative terms in providing a cushion to the industrial activities. Moreover, a word on the linkages with industrial estates, EPZ's and SIZ for improving the output may be given.

Chapter 4. Industrial Quality Control - Status and Requirements

4.3
You have given a realistic view of difficulties PSQCA may face in its formation. Could you also please highlight of its weaknesses, the type of technical assistance it may need to be able to gear itself for the functions outlined by the Ministry of Science & Technology.

Chapter 6. Recommendations

6.0
You may like to dilate briefly upon where does Pakistan stands in the Korean S&T Model and if analyzed critically what are those areas where it has really lagged behind.

The list of Project recommended by the NMC may be the best recipes in setting a course for correcting the shortcomings in improving the present situation but these are only a piecemeal remedy for countering the enormous multi-faceted problems confronting the country in the industrial development. With priorities gradually shifting to stimulating the industrial sector, Research and Development has become the need of the hour. There is no gainsaying in the fact that without proper attention towards R & D, can the country boast of producing quality industrial products. Would you, therefore, not recommend a R & D Project besides the ones you have mentioned.

We shall appreciate if you could briefly examine from a critical perspective the overall picture that emerges from the findings of this study. The following points and queries may be kept in mind while preparing such an analytical brief.

- Is the industrial development scenario bleak or bright?
- Are we witnessing an accelerated activity?
- Is the direction sound and well founded?
- Will the impact from development strategies be positively reflected in the outputs?
- Do the current policies reflect optimism and provide protection to the industrialists?
- Are the policies transparent and incorporate ingredient for sustainability?
- In your opinion do these policies need to be more focused?
- Is the progress in the industrial development adequate/satisfactory till now taking into the current resource factor and the ambitious plans of the government.

Some questions:

- Why is it necessary in the present scenario for the Industrial Development to take off successfully?
- What are the demand and supply forces that have driven the government to a changed strategy i.e. more emphasis on Industrial Development?
- What necessitates the steps taken for creating Industrial demand?
- Why in your opinion does the industrial development needs a boost?
- How did the government plans culminate into the present strategy?

And finally as a special favour, would it be possible for you to provide us organization charts of:

- BOI
- EPB
- Ministry of Industries and Production
- EPZA
- Chambers of Commerce and Industry

With best regards,

Sincerely yours,

Sohail Ahmed
Programme Officer

ANNEXURE 1

TERMS OF REFERENCE FOR THE STUDY ON INDUSTRIAL DEVELOPMENT

ANNEXURE 1

TERMS OF REFERENCE FOR STUDY ON INDUSTRIAL DEVELOPMENT

1. BACKGROUND

The Government of Pakistan has been promoting industrial development, especially export oriented industries, and has set a target of attaining 9.9 percent annual growth in manufacturing sector in Eight Five Year Plan. In order to achieve that target, GOP has been introducing several policies and formulating strategies i.e. attraction of foreign investment, de-regulation and liberalization of related regulations, privatization of public corporations, establishment of Board of Investment and Privatization Commission, and setting up of special industrial zones and export processing zones, introduction of new export policy and promotion of industrial standards.

2. PURPOSE

The primary objective is to obtain an overall figure of industrial development plan and to identify some possible field or sectors where foreign assistance, economic or technical, is required to help implement the government's development strategies. A study will be carried out to list up these development strategies, focusing mainly on the establishment of industrial promotion areas, promotion of industrial quality control and to clearly define the present status of each strategy and the plan under which it falls. Furthermore, bottlenecks or constraints in implementation of these plans or strategies will be identified and some projects will be recommended in which foreign assistance can play a significant role in the industrial development.

The study follows a three-step approach; collection and organization of data; analysis of present situation and obstacles to the development; and finally in the light of the current proceedings an analysis ascertaining the necessity and demand of the development in the industrial sector in Pakistan.

3. METHODOLOGY

1) Background information

The data will be collected dealing fundamentally with the following subjects:

i. The background of Government Policy for industrial development
ii. Development of action plan and strategies in the sector along with related organizations, institutions and agencies

2) **Features of Specific Strategies**

i) Establishment of industrial promotion area

- Related institution and structure
- government policy
- categories and regulation of industrial estate, special industrial zone and export processing zone.
- present condition and problems.
- future plan.

ii) Promotion of industrial quality control.

- related institution and its respective role
- government policy and plan
- international requirement
- present situation and problems
- future plan of development

3) **Requirement for foreign assistance**

i) Donor's assisted projects (list up major projects)

ii) Required foreign assistance, technical and economical, to development in the two plans

4. **Out-put**

Comprehensive report with inventory of the project will be submitted to JICA Pakistan Office

ANNEXURE 2

PROJECTS APPROVED BY THE EXPORT DEVELOPMENT FUND

ANNEXURE 2

PROJECTS APPROVED BY EXPORT DEVELOPMENT FUND

S.No.	NAME OF PROGRAMME/PROJECT	SPONSORING AGENCY
1.	Training Institute of Weaving & Dying Technologist and Technicians (Towels), Karachi and Lahore	Towel Manfs. Association of Pakistan
2.	Pakistan Bedwear Designing Training Institute, Karachi	Pak. Bedwear Exporters Association
3.	Fashion Apparel Design Training Institute, Karachi	Pakistan Cotton Fashion Apparel Manfs. & Exporters Association
4.	Pakistan Knitwear Institute, Karachi	Pakistan Knitwear & Sweaters Exporters Association
5.	Training & Research Centre, Karachi	Pakistan Silk & Rayon Mills Association
6.	Upgradation of Gem-Cutting Training Institute of Pakistan at Karachi	All Pakistan Gem Merchants and Jewelers Association
7.	Ready-made Garment Technical Training Institute at Karachi	Pakistan Ready-made Garments Manf. & Exporters Association
8.	Cutlery Institute of Pakistan, Wazirabad	Pakistan Cutlery and Utensils Manfs. & Exp. Association
9.	Facility-cum-Training Centre for Leather at Kasur	Tanneries Association, Din Gar, Kasur
10.	Pakistan Knitwear Institute at Lahore	Pakistan Knitwear & Sweaters Exporters Association
11.	Leather Products Development Institute at Sialkot	Pakistan Gloves Manfs. & Exporters Association, Sialkot.
12.	Research & Training Centre for Weaving at Faisalabad	Pak. Silk & Rayon Mills Association
13.	Research & Training Centre for Weaving at Gujranwala	Pak. Silk & Rayon Mills Association
14.	National Institute of Leather Technology at Karachi	Pakistan Tanners Association
15.	Pakistan School of Fashion Design	Fashion Design Institute at Lahore by EPB
16.	Fashion Design Technology Centre for Women, Karachi	Pakistan Association of Women Entrepreneurs
17.	Establishment of Knitwear Technology at Karachi	Pakistan Hosiery Manfs. & Exporters Association

S.No.	NAME OF PROGRAMME/PROJECT	SPONSORING AGENCY
18.	Establishment of Knitwear Technology at Lahore	Pakistan Hosiery Manfs. & exporters Association
19.	Establishment of Institute for Handloom/Home Textiles Technologies at Multan	All Pakistan Bedsheets and Upholstery Mills Association Multan
20.	Grant of funds for the establishment of Institute of Ginning at Multan.	Cotton Export Corporation
21.	Establishment of Textile University at Karachi	All Pakistan Textile Mills Association
22.	Allocation of funds for leasing Foreign Trade Institute of Pakistan, Islamabad	
23.	Establishment of Testing Laboratory for Surgical Instruments at Sialkot	Pakistan Surgical Manfs. & Exporters Association, Sialkot
24.	Establishment of Fan Development Institute at Gujrat	Pakistan electrical Fan Manufacturers Association
25.	Establishment of Combined Effluent Treatment Plant & Pollution Abatement for Korangi Tanners at Karachi	Ministry of Industries through PTA, LIDO

ANNEXURE 3

INDUSTRIAL ESTATES IN PAKISTAN

ANNEXURE 3

INDUSTRIAL ESTATES IN PAKISTAN

PUNJAB

S. NO.	NAME OF INDUSTRIAL ESTATE	YEAR OF ESTABLISHMENT	BASIC SERVICES AVAILABLE
1.	Small Industrial Estate G.T. Road, Gujrat.	1962-63	Roads, Power, Gas, Telecommunication and Water.
2.	Lahore Township Scheme, Kot Lakhpat	1963	-do-
3.	Small Industrial Estate, G.T. Road, Gujranwala.	1963-64	-do-
4.	Small Industrial Estate, Uggoki Road, Sialkot.	1963-64	-do-
5.	Small Industrial Estate, Multan Road, Bahawalpur.	1965-66	-do-
6.	Industrial Estate, Multan.	1968	Roads, Power Water and Telecommunication and Water.
7.	Thal Mandi Town, Bhakkar.	1952-53	Roads, Power and Water.
8.	Thal Mandi Town, Layyah.	1952-53	-do-
9.	Thal Mandi Town Jauharabad.	1952-53	-do-
10.	Thal Mandi Town Saraj Mohajir.	1952-53	-do-
11.	Small Industrial Estate, Kot Lakhpat, Lahore.	1963-64	-do-
12.	Small Industrial Estate, G.T. Road Jhelum.	1978-79	-do-
13.	Mini Industrial Estate, Gujar Khan, G.T. Road.	1978-79	Roads Power and Water.
14.	Small Industrial Estate, Sahiwal.	1980-81	-do-
15.	Mini Industrial Estate, R.P. Road, Chakwa.	1981-82	-do-
16.	Small Industrial Estate, Sargodha.	1981-82	-do-
17.	Chunian Industrial Estate.	-	-do-
18.	Small Industrial Estate, Gujranwala-II.	1978-79	-do-
19.	Khajali Bye-Pass S.I.E. Narka Kohala Road, Faisalabad.	1978-79	-do-
20.	Small Industrial Estate, Daska.	-	Roads and Water only.
21.	Attock Industrial Estate, Attock	-	-do-

SINDH

S. NO.	NAME OF INDUSTRIAL ESTATE	YEAR OF ESTABLISHMENT	BASIC SERVICES AVAILABLE
1.	S.I.T.E., Karachi.	1947	Roads, Power, Gas, Telecommunication and Water.
2.	SITE, Hyderabad, Hyderabad Taluka and District.	1950	-do-
3.	SITE, Kotri, Kotri Taluka Dadu District.	1962	-do-
4.	SITE, Sukkur, Sukkur Taluka and District.	1963	-do-
5.	Sukkur.	1963-64	-do-
6.	SITE, Tando Adam Shahadapur Taluka, Sanghar District.	1953	-do-
7.	Larkana	1964-65	Roads, Power Water and Telecommunication
8.	Tharparkar Industrial Estate.	1974	-do-
9.	Sehawan Distt: Dadu Industrial Parks.	1974	-do-
10.	Kandkot Distt: Jacobabad.	1982-83	-do-
11.	Dadu	1982-83	-do-
12.	SITE, Nooriabad, Thana Bolla Khan..	1983	Roads, Power, Water and Telecommunication
13.	Shikarpur	1984-85	-do-
14.	Nawabshah	1985-86	-do-
15.	Badin	1985-86	-do-
16.	Khairpur	1985-86	-do-
17.	Mirpurkhas Distt: Tharparkar.	1985-86	-do-
18.	Hyderabadustrial Estate, Gujranwala-II.	1985-86	-do-
19.	Sanghar	1986-87	-do-
20.	SITE, North Karachi (Scheme No.33) East Distt.	1983	-do-
21.	Rohri	-	-do-

N.W.F.P.

S. NO.	NAME OF INDUSTRIAL ESTATE	YEAR OF ESTABLISHMENT	BASIC SERVICES AVAILABLE
1.	Small Industrial Estate, Peshawar.	1961-62	Roads, Power, Gas, Telecommunication and Water.
2.	Industrial Estate, Jamrud Road, Peshawar.	1965-66	-do-
3.	Small Industrial Estate, Mardan.	1974-75	-do-
4.	Small Industrial Estate, Abbottabad.	1973-74	Roads, Power Water and Telecommunication.
5.	Small Industrial Estate, Khalabat.	1973-74	-do-
6.	Small Industrial Estate, D.I. Khan.	1973-74	-do-
7.	Industrial Estate, Hattar Haripur, Abbottabad.	1985-86	-do-
8.	Gadoon Amazai, 1987-88	-do-	
9.	Small Industrial Estate, Kohat.	1974-75	Roads Power Water
10.	Small Industrial Estate, Bannu.	1974-75	-do-
11.	Manshehra	1985-86	Roads, Water only

BALOCHISTAN

S. NO.	NAME OF INDUSTRIAL ESTATE	YEAR OF ESTABLISHMENT	BASIC SERVICES AVAILABLE
1.	Hub Industrial Trading Estate Tehsil Hub, Distt. Lasbella.	1982	Roads, Power, Gas, Telecommunication and Water.
2.	Small Industrial Estate, Tehsil Quetta, Distt. Quetta.	-	-do-
3.	Uthal Industrial Estate, Tehsil Uthal, District Lasbella.	1982	-do-
4.	Quetta Industrial Estate, Tehsil Quetta.	-	-do-

ANNEXURE 4

CHAMBERS OF COMMERCE AND INDUSTRIES

ANNEXURE 4

CHAMBERS OF COMMERCE & INDUSTRY

Federation of Pakistan Chambers of Commerce & Industries (FPCCI)
Federation House, Main Clifton, Karachi-75600, Pakistan
Tel: 021-5873691-4, 5873626(Dir),Res: 021-4961370
Telex: 25370 FPCCI PK,Fax: 92-021-5874332

1. **Azad Jammu & Kashmir Chamber of Commerce & Industry,**
52-f/1, Jaridam Road, P.O. Box No. 12,
Mirpur (Azad Kashmir), Pakistan.
Tele: 4890
Fax: 054-2365

2. **Bhawalpur Chamber of Commerce & Industry,**
113117-C, Satellite Town, Bhawalpur,
Pakistan.
Tel: 5283
Telex: 42444 MASUD PK.
Fax: 061-4511 (Attn: BCCI)

3. **Dadu Chamber of Commerce & Industry,**
258, Deh Hathal Buth Nooriabad, Super Highway,Distt. Dadu,
Pakistan.
Tele: 440012-14, 432123
Telex: 23862 DABH PK.
Fax: 437301, 439354

4. **Dera Ghazi Khan Chamber of Commerce & Industry,**
Khakwani House, Block No. 34, Dera Ghazi Khan, Pakistan.
Tele: 62338
Telex: 42467 NBP PK.
Fax: 46938

5. **Dera Ismail Khan Chamber of Commerce & Industry,**
West Circular Road, Dera Ismail Khan,
Pakistan.
Tele: 3354, 3330
Cable: DERACHEM

6. **Faisalabad Chamber of Commerce & Industry,**
National Bank Building (2nd Floor),
Jial Road, Faisalabad, Pakistan.
Tele: 615085 - 32583, 616045-47
Telex: 4285 FCCI PK.,Fax: 0411-6115085
Cable: FASLCHAMBER

7. **Gujranwala Chamber of Commerce & Industry,**
P.O. Box. No. 96, Aiwain-e-Tijarat Road,
Gujranwala, Pakistan.
Tele: 80232-35 PABX 2567011-5
Telex: 45362 GCCI PK.
Fax : 254440
Cable: CHAMBER

8. **Hazara Chamber of Commerce & Industry,**
Al-Mumtaz Plaza, Supply Bazar, Mansehra Road,
Abbotabad, Pakistan.
Tele: 5166
Telex: 52348 PCOAT
Cable: HCCIATD.

9. **Hyderabad Chamber of Commerce & Industry,**
526, Quaid-e-Azam Road, Cantonment,
P.O. Box No. 99,
Hyderabad, Pakistan.
Tele: 29041, 22972-73
Fax: 02211-618760

10. **Islamabad Chamber of Commerce & Industry,**
Aiwan-e-Tijarat Road, Mauve Area, Sector G-8/1,
Islamabad, Pakistan.
Tele: 250526-253145
Fax: 252950

11. **Karachi Chamber of Commerce & Industry,**
Aiwan-e-Tijarat Road, P.O. Box No.4158,
Karachi-2, Pakistan.
Tele: 2416091, 2415434
Telex: 20613 KCCI PK.
Fax: 92-21-2416095
Cable: CHAMCOMIND

12. **Khairpur Chamber of Commerce & Industry,**
Jumni Chowk, Near M.C.B.,
Khairpur, Pakistan.

13. **Lahore Chamber of Commerce & Industry,**
11-Sharea Aiwan-e-Tijarat, P.O. Box No. 597,
Lahore, Pakistan.
Tele: 305538-40
Telex: 44833 LCCI PK.
Fax: 6368854
Cable COMMERCE

14. **Larkana Chamber of Commerce & Industry,**
Aiwan-e-Tijarat Road, P.O. Box. No. 78,
Larkana, Pakistan.
Tele: 601136, 411805
Telex: 7702 PCLOA PK. (Attn: 60136)
Cable MILL

15. **Mirpurkhas Chamber of Commerce & Industry,**
P.O. Box No. 162, Rotary Club Building,
Lal chand Bagh, Mirpurkhas, (Sindh)
Pakistan,
Tele: 023-3144, 2047, 2175
Fax: 9221
Cable: MIRPURCHAMBER

16. **Multan Chamber of Commerce & Industry,**
Cooperative Bank Building,
Kutchery Road, P.O. Box No. 90, Multan,
Pakistan.
Tele: 40087, 43530
Telex: 42339 KHAIR PK.
Fax: 51141101 (Attn: MCCI)
Cable: MULCHAMBER

17. **Overseas Investor, Chamber of Commerce & Industry,**
Chamber of Commerce Building, Talpur Road,
P.O Box No. 4833, Karachi, Pakistan.
Tele: 222557-58
Fax: 2427315
Cable: OVERCHAM

18. **Quetta Chamber of Commerce & Industry,**
Zargoon Road, P.O. Box No. 117,
Quetta (Balochistan), Pakistan.
Tele: 821943, 821948
Fax: 081-8211948
Cable: CHAMBER

19. **Rawalpindi Chamber of Commerce & Industry,**
Chamber House, 108, Adam Jee Road,
P.O. Box. No. 323, Rawalpindi, Pakistan.
Tele: 584397, 566238
Telex: 5547 RCCI PK.
Fax: 92-51-586849
Cable: CHAMBER

20. **Sargodha Chamber of Commerce & Industry,**
13-C, Satellite Town, Sargodha, Pakistan.
Tele: 62849
Telex: 43411 CTOSG PK.
Fax: 711884
Cable: CHAMBERSARGODHA

21. **Sarhad Chamber of Commerce & Industry,**
Sarhad Chamber House, G.T. Road,
Peshawar, Pakistan.
Tele: 215459, 216398
Telex: 52471 CHMER PK.
Fax: 217412
Cable: CHAMBER

22. **Shikarpur Chamber of Commerce & Industry,**
Opp. Gole Market, Shikarpur, Pakistan.

23. **Sialkot Chamber of Commerce & Industry,**
P.O. Box. No. 1870, Shahrah-e-Aiwan-e-Sanat-o-Tijarat,
Sialkot, Pakistan.
Tele: 561881-3, 557379
Telex: 46314 SCCI PK.
Fax: 558835
Cable COMMERCE

24. **Gadoon Chamber of Commerce & Industry,**
Gadoon Amazai, Pakistan.

25. **Sukkur Chamber of Commerce & Industry,**
Opp. New Cloth Market, Marich Bazar,
Sukkur, Pakistan.
Tele: 23938, 23059
Telex: 7726 MCB PB PK.
Fax: 23059
Cable: TRADEINDUS

26. **Sheikhupura Chamber of Commerce & Industry,**
Kot Abdul Malik, Lahore-Sheikhupura Road, Lahore, Pakistan.
Tele: 270313, 7236541-2, 356621
Telex: 47458 TARIQ PK.
Fax: 7236542

ANNEXURE 5

TRADE AND INDUSTRY ASSOCIATIONS

TRADE AND INDUSTRY ASSOCIATIONS

1. PAK-COTTON FASHION APPAREL MANUFACTURERS AND EXPORTERS ASSOCIATION ,
5-AMBER COURT, 2ND FLOOR,
SHAHEED-E-MILLAT ROAD,
KARACHI.
OFF: 021-432936, 443141
RES: 021-437272
FAX: 021-4546711
TLX: 23900 PCFA PK
CAB: COTTONFASH

2. PAKISTAN COTTON GINNERS ASSOCIATION,
1118-1120, UNI PLAZA, 11TH FLOOR,
I.I. CHUNDRIGAR ROAD,
KARACHI.
OFF: 021-2411882, 2411406
FAX: 021-2423181
TLX: 29296 PCGA PK
CAB: PAKGINNERS

3. PAKISTAN FILM PRODUCERS ASSOCIATION,
REGAL CINEMA BUILDING
SHAHRAH-E-QUAID-E-AZAM,
LAHORE.
042-322904

4. PAKISTAN GLOVES MANUFACTURERS & EXPORTERS ASSOCIATION,
349, KHADIM ALI ROAD,
P.O. BOX NO. 1330,
SIALKOT.
OFF: 0432-551847
FAX: 0432-550182
CAB: HANDWEAR

5. PAKISTAN HANDICRAFTS MANUFACTURERS & EXPORTERS ASSOCIATION,
1ST. FLOOR PHILIPS MARKAZ,
M. A. JINNAH ROAD,
KARACHI.
OFF: 021-7728121
FAX: 021-514506,523265
TLX: 25185 KALIN PK
CAB: PHAMEAEXPO

6. PAKISTAN HAREWARE MERCHANTS' ASSOCIATION,
MANDVIWALA BUILDING, SERAI ROAD,
KARACHI.
OFF: 021-2420610,2427186
7731429
TLX: 21772 QAMAR PK

7. PAKISTAN INDUSTRIAL FASTENERS MANUFACTURERS ASSOCIATION,
2ND FLOOR QUAID PLAZA,
20 ABBOTT ROAD,
LAHORE.
OFF: 042-6364451

8. INSURANCE ASSOCIATION OF PAKISTAN,
JAMSHED KATRAK CHAMBERS,
G. ALLANA ROAD, P. O. BOX NO. 4932,
KARACHI.
OFF: 021-204704, 2311784
FAX: 021-205165

9. PAKISTAN IRON & STEEL MERCHANTS ASSOCIATION,
53, IDREES CHAMBERS, 4TH FLOOR,
TALPUR ROAD,
KARACHI.
OFF: 021-2416469,435100
4931207
RES: 021-439871
FAX: 021-4550699
CAB: STEELASSO

10. PAKISTAN JUTE MILLS ASSOCIATION,
8, SASI TOWN HOUSE, CIVIL LINES,
ABDULLAH HAROON ROAD,
KARACHI.
OFF: 021-526986
FAX: 021-526463
CAB: JUTEMILLS

11. PAKISTAN PAINT MANUFACTURERS ASSOCIATION,
ST-6/4, BLOCK-14, FEDERAL B AREA,
KARACHI.
FAX: 021-2534477
TLX: 25527 BUXLY PK
OFF: 021-6321103

12. PAKISTAN SHIPOWNER ASSOCIATION,
(NATIONALIZED BY GOVT.),
BILLA BROTHERS BUILDING,
TALPUR ROAD,
KARACHI.
OFF: 021-2427154, 2426720
FAX: 021-2414551
TLX: 21649 SHAFI PK

13. PAKISTAN SILK RAYON MILLS ASSOCIATION,
44-48-48, TEXTILE PLAZA,
5TH FLOOR, M .A. JINNAH ROAD,
KARACHI.
OFF: 021-2415261, 2410288
FAX 0212415261

14. PAKISTAN STEEL MELTERS ASSOCIATION,
30-S, GULBERG CENTER, 84-D/1,
MAIN BOULEVARD, GULBERG III,
LAHORE.
OFF: 042-874770,5712608
RES: 042-876959
FAX: 042-872230
CAB: REMELTERS

15. THE PAK. STEEL RE-ROLLING MILLS' ASSOCIATION,
RASHID CHAMBERS, 6 LINK McLEOD ROAD,
LAHORE.
OFF: 042-7226318, 7231154
FAX: 042-7230865
TLX: 2551 DEAN PK
CAB: WESTROLLS

16. PAKISTAN SUGAR MILLS ASSOCIATION,
24-D, RASHID PLAZA, JINNAH AVENUE,
ISLAMABAD.
OFF: 051-813722,812111
RES: 051-4940851/4941343
FAX: 051-217738
TLX: 43471 CJP PK
CAB: SUGARLINK

17. THE SURGICAL INSTRUMENT MANUFACTURERS ASSOCIATION OF PAKISTAN,
KUTCHERY ROAD,
SIALKOT.
OFF: 0432-263016,556240
FAX: 0432-265978
CAB: SIMA

18. PAKISTAN TANNERS ASSOCIATION
(CENTRAL), PLOT NO. ST-7, SECTOR NO. 7-A,
KORANGI INDUSTRIAL AREA,
KARACHI.
OFF: 021-5062077-78
FAX: 021-5060323
TLX: 25133 GIFCO PK

19. ALL PAKISTAN TEXTILE MILLS ASSOCIATION,
APTMA HOUSE, 44-A, LALAZAR,
MOULVI TAMIZUDDIN KHAN ROAD,
P.O. BOX 5446,
KARACHI.
OFF: 021-552046-7, 552296
FAX: 021-551305
TLX: 25037 APTMA PK
CAB: APTMA

20. TOWEL MANUFACTURERS ASSOCIATION OF PAKISTAN,
12TH FLOOR, KASHIF CENTRE,
SHAHRAH-E-FAISAL,
KARACHI.
OFF: 021-527204,527278,51635
FAX: 021-519431
CAB: PAKTOWEL

21. PAKISTAN VANASPATI MANUFACTURERS' ASSN.,
OFFICE NO. 15, FOURTH FLOOR,
HAFEEZ CENTER, MAIN BOULEVARD,
GULBERG III,
LAHORE.
OFF: 042-5752267,021-2411228
2426947-50
FAX: 042-5752268,021-2411044

22. PAKISTAN WOOLLEN MILLS ASSOCIATION,
REPUBLIC MOTORS BUILDING, 2ND FLOOR,
87, SHAHRAH-E-QUAID-E-AZAM,
LAHORE
OFF: 042-6306879
FAX: 042-6306879
TLX: 44486 SANA PK
CAB: PAWOOLMA

23. PAKISTAN YARN MERCHANTS ASSOCIATION,
802-3 8TH FLOOR, BUSINESS CENTER,
DUNOLLY ROAD,
KARACHI
OFF: 021-2410320, 2424896
FAX: 021-2425578, 437843
TLX: 23970 MIFTA PK
CAB: YARNMERAS

24. PAKISTAN SPORTS GOODS MANUFACTURERS & EXPORTERS ASSOCIATION,
ABBOT ROAD,
SIALKOT.
OFF: 0432-267962
FAX: 0432-261774
TLX: 46142 STAR PK

25. PAKISTAN READYMADE GARMENTS MANUFACTURERS & EXPORTERS ASSOCIATION,
SHAHEEN VIEW BUILDING,
18-A, BLOCK VI, P E C.H S.,
KARACHI,
OFF: 0432-449047,449096
FAX: 021440489
TLX: 23636 PGMEA PK

26. PAKISTAN ELECTRICAL MANUFACTURERS ASSN.
LDA FLATS 2-C,
LAWRENCE ROAD,
LAHORE
OFF: 042-876663
FAX: 042-5710408

ANNEXURE 6

DEVELOPMENT FINANCE INSTITUTIONS

NAME :	NATIONAL DEVELOPMENT FINANCE CORPORATION		
HEAD OFFICE ADDRESS:	6th Floor, Finance & Trade Center, Shahrah-e-Faisal, Karachi.		
REGIONAL OFFICES (NO.)	2	LOCATED:	Islamabad Lahore
BRANCHES (NO.)	38	EMPLOYEES (NO.)	934
AUTHORIZED CAPITAL :	Rs. 500,000,000	PAID UP CAPITAL	Rs.390,000,000
FIXED DEPOSITS:	Rs. 19,272,328,311	LOAN DISBURSED:	Rs. 19,723,999,303
SERVICE OFFERED:	1).Finance public and private sector corporations. 2). Promote industrial expansion and economic growth in the country by providing financial and technical assistance and consultancy services for the establishment of the new enterprises.		
DEPOSIT MOBILIZATION SCHEMES:	1). Monthly Income Certificate (NIC). 2). Time Deposit Account (TDA).		

NAME :	PAKISTAN INDUSTRIAL CREDIT AND INVESTMENT CORPORATION LTD.		
HEAD OFFICE ADDRESS:	State Life Building No.1, I.I., Chundrigar Road, B.O. Box.5080. Karachi-7400		
REGIONAL OFFICE (NO.)	3	LOCATED:	Karachi, Lahore Peshawar.
BRANCHES (NO.)	19	EMPLOYEE (NO.)	410
AUTHORIZED CAPITAL :	Rs. 1,000,000,000	PAID UP CAPITAL	Rs. 557,109,000
FIXED DEPOSITS:	Rs. 5,463,957,000	LOAN DISBURSED:	Rs. 15,056,123,000
SERVICE OFFERED:	1). To give financial and other assistance to the private sector industry in Pakistan. 2). PICIC's assistance is generally given for acquisition of fixed assets 3). It also provides loans for working capital		
DEPOSIT MOBILIZATION SCHEMES:	1). PICIC certificate of deposit 2). Prime Certificate 3). Capital Plus Certificate.		

NAME :	BANKERS EQUITY LIMITED		
HEAD OFFICE ADDRESS:	First Floor, Finance & Trade Center, Shahrah-e-Faisal, Karachi-74400		
REGIONAL OFFICE (NO.)	4	LOCATED:	Lahore, Islamabad, Peshawar & Karachi
BRANCHES (NO.)	17	EMPLOYEE (NO.)	356
AUTHORIZED CAPITAL :	Rs. 5,000,000,000	PAID UP CAPITAL	Rs. 655,789,660
FIXED DEPOSITS:	Rs. 3,432,199,836	LOAN DISBURSED:	Rs. 11,555,739,829
SERVICE OFFERED:	Bankers Equity Limited offers a range of financial services extended from direct equity investment and under writing of public issues of shares to term financing both In local and foreign currencies, working capital, lease financing , guarantees of foreign credit and non-interest financing instruments		
DEPOSIT MOBILIZATION SCHEMES:	KMIC, Kafalat Monthly Income Certificate. MC Munafa Certificate MMC Murakab Munafa Certificate		

NAME :	INVESTMENT CORPORATION OF PAKISTAN		
HEAD OFFICE ADDRESS:	National Bank of Pakistan Building 5th floor, I.I. Chundrigar Road, P.O. Box . No.5410 Karachi		
REGIONAL OFFICE (NO.)		LOCATED:	
BRANCHES (NO.)	10	EMPLOYEE (NO.)	
AUTHORIZED CAPITAL :	Rs.200,000,000	PAID UP CAPITAL	Rs.158,700,000
FIXED DEPOSITS:	Rs.865,659,000	LOAN DISBURSED:	Rs.1,105,698,000
SERVICE OFFERED:	1). To float and mnagement mutual funds 2). To develop the capital market in Pakistan. 3). To underwrite and distribute public issues of shares 4). To participate in equity of projects		
DEPOSIT MOBILIZATION SCHEMES:	1). ICP investors scheme 2). ICP mutual funds. 3). Term Deposit Scheme 4). PRISM' 96 scheme		

NAME :	AGRICULTURAL DEVELOPMENT OF PAKISTAN		
HEAD OFFICE ADDRESS:	ADBP. Building Near Zero Point, Islamabad.		
REGIONAL OFFICE (NO.)	49	LOCATED:	Islamabad, Punjab, Sindh ,NWFP, Azad Kashmir & Northern Areas.
BRANCHES (NO.)	332	EMPLOYEE (NO.)	8667
AUTHORIZED CAPITAL :	Rs. 4,000,000,000	PAID UP CAPITAL	Rs. 3,214,323,00
FIXED DEPOSITS:	Rs. 209,914	LOAN DISBURSED:	Rs. 40,146,991,23
SERVICE OFFERED:	The main objective of the Bank is to provide credit facilities to the agriculturists for seeds, fertilizers, pesticides, tractor, tube-well e.t.c		
DEPOSIT MOBILIZATION SCHEMES:			

ANNEXURE 7

CERTIFICATION MARKING OF PROJECTS

PAKISTAN: CERTIFICATION MARKING OF PRODUCTS