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**SURVEY ON OPPORTUNITIES FOR
INDUSTRIAL COOPERATION BETWEEN INDUSTRIAL
ENTERPRISES FROM DEVELOPING COUNTRIES
AND POTENTIAL ENTERPRISES FROM DEVELOPED COUNTRIES**

BY

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SURVEY ON OPPORTUNITIES FOR
INDUSTRIAL COOPERATION BETWEEN INDUSTRIAL
ENTERPRISES FROM DEVELOPING COUNTRIES AND
POTENTIAL ENTERPRISES FROM DEVELOPED COUNTRIES

INTRODUCTION

The Government of Pakistan is committed to industrialisation in the country. It has laid down a clear cut policy of framework for attaining this objective. This report elucidates the national industrial policy, institutions relevant for the promotion of industrial cooperation with the foreign investment and case studies of five selected enterprises. The report is divided into three chapters:

- Chapter - I : National Industrial Policy Framework.
- Chapter - II : Policies regarding Foreign Investment and Collaboration, and;
- Chapter - III : A Survey of Five Selected Enterprises.

CHAPTER - I

INDUSTRIAL POLICY

The Government industrial policy is clearly laid down in its Seventh Five Year Plan (1988-93) as well as in industrial policy package 1989.

The Seventh Five Year Plan while discussing the strategy for industrialisation stated; "the emphasis will be on the establishment of more efficient export oriented and sophisticated industries. Appropriate policies and incentives will be developed to encourage key sectors such as engineering, electronics and high technology industries, stimulate the modernization of existing industries (particularly agro-processing) and deal effectively with "sick" industries. Policies will also be developed to speed up the industrialisation of the less developed areas."^{*}

* The Seventh Five Year Plan 1988-93, Planning Commission, Government of Pakistan. pages 180 - 181.

The plan envisages an industrial investment of Rs 96.5 billion of which Rs 9 billion are earmarked for public sector and Rs 89.5 billion for private sector.

A new industrial policy package is introduced in July, 1989. The focus as reflected in the new industrial policy package for development of industries is on the following:*

- a. Provision of physical and social infrastructure facilities in the industrial estates as well as backward areas.
- b. Development of key industries viz. (i) bio-technology; (ii) fibre optics; (iii) solar energy equipment; (iv) computers and softwares; (v) electronic equipment, and; (vi) fertilizers.
- c. Creation of employment opportunities by encouraging labour intensive projects as well as small-scale industries.
- d. Balanced regional growth through dispersal of industries in the less developed areas.

PROCEDURAL APPROACH FOR INDUSTRIALIZATION

A. DE-REGULATION. In order to alleviate the difficulties faced by the local as well as foreign entrepreneurs, in obtaining sanctions for the establishment of industrial units, the requirement of Government sanction has been dispensed with, to a large extent. The entrepreneur is now free to select and establish industry of his choice without Government intervention. In a few cases where he requires Government sanction, the sponsor is required to file an application to the Investment Promotion Bureau alongwith the feasibility report. In some cases the sponsors can also apply directly to the development financing institutions.

* 1. "Industrial Policy Package" and 2. "Pakistan Investment Guide", Ministry of Industries, Government of Pakistan, July, 1989.

All the sanctioning agencies including the DFIs are now under strict instruction to finally decide the project proposals within the period of 60 days. The entrepreneur of a project not requiring sanction, can apply directly to the Chief Controller of Imports and Exports (CCI&E) for licence/permit for import of plants and machinery. CCI&E has been directed to issue the required licence/permit within 24 hours.

In its effort to further improve the decision-making and accelerate industrialisation process, in March, 1989 a supra ministerial body namely; Board of Industrial Investment has been constituted under the chairmanship of Prime Minister. The Board shall:

- a. Lay down policy guidelines for industrialisation of the country.
- b. Sanction all projects costing more than Rs 1000 million.
- c. Sanction all projects in the specified list.
- d. Sanction projects where foreign equity is 50% or more and where major policy decisions are involved.

All other projects would not require any Government approval. The Government has also decided that foreign investment will not be permissible in the following areas:

- a. Agricultural land, forestry and irrigation.
- b. Real estate including land, housing commercial and office buildings.
- c. Radio active minerals.
- d. Insurance.
- e. Health.

A committee on investment under the chairmanship of Minister of Industries has also been constituted. This will check the progress of the projects sanctioned by the Board of Investment and will ensure that they will get the services and facilities.

The meetings of the Board of Investment will be held every month. One window facility will be available to the units established in all Government sanctioned industrial estate and to any unit put up in the backward area. Ministry of Industries will be responsible for providing within 60 days of the sanction of any industrial project the facilities of power, gas, telecommunication, water supply and sewerage.

CHAPTER - II

POLICIES REGARDING FOREIGN INVESTMENT AND FOREIGN COLLABORATION *

The Government of Pakistan attaches great importance to the inflow of direct foreign investment, particularly in areas where it brings advanced technology, managerial and technical skills and marketing expertise. A legal framework for foreign investment has been provided in the form of Foreign Private Investment (Promotion and Protection) Act 1976. The act provides for security against expropriation and adequate compensation in case of acquisitions. The Act also guarantees the following:

- a. Remittances of profit and capital;
- b. remittances of appreciation of capital investment;
- c. foreign private investment shall not be subjected to more burden of taxes on income than those applicable to investment made in similar circumstances by citizens of Pakistan, and;

* "Industrial Policy Package" and "Pakistan Investment Guide" op.cit.

- d. relief from double taxation in cases of those countries with which Pakistan has agreement for avoidance of double taxation.

Foreign investment is also entitled to the following facilities;

- a. foreign nationals employed in Pakistan are permitted to send monthly remittances to the country of their domicile upto 50% of net income; and
- b. foreign nationals on returning from Pakistan are permitted to transfer their savings.

To facilitate Foreign Investment in the country, standard guidelines for payment of technical know-how, royalty fee and terms of suppliers credit/foreign loans have been prescribed. Agreements falling within these prescribed limits do not need formal Government permission but have merely to be registered with the State Bank of Pakistan. It is only in cases involving payments in excess of the prescribed ceilings, that permission of the State Bank/Ministry of Finance is required.

The Government, prefers foreign investment in industries which are capital intensive, involve sophisticated technology or strengthen the balance of payments position. Package deals with foreign firms for the provision of capital, manufacturing technology, management and marketing know-how, backed by their own international sales net work is also encouraged. All incentives and concessions, as available to the local investors, in the form of duty concessions, tax holiday, liberal depreciation allowance, etc. are also available to foreign investors.

The foreign private investment shall be classified as either prohibited or allowed subject to normal restrictions. The following two lists describe the sectors belonging to either of the two categories respectively:

NEGATIVE AND POSITIVE LIST FOR
FOREIGN INVESTMENT

Prohibited List

- i. Agriculture Land
- ii. Forestry
- iii. Irrigation
- iv. Real Estate including land, housing and commercial and office buildings.
- v. Radio active minerals.
- vi. Insurance
- vii. Health

Positive List

- i. Live Stock farming
- ii. Seed farming
- iii. Dairy farming
- iv. Poultry farming
- v. Deep sea fishing
- vi. Coastal fishing
- vii. Inland fishing
- viii. Manufacturing (other than specified list)
- ix. Construction
- x. Power generation
- xi. Oil Gas and Coal exploration and mining
- xii. Metals and Minerals (other than Radio active)
- xiii. Tourist services and hotel-reering
- xiv. Nuclear energy
- xv. Export related trading and commerce
- xvi. Transport and communications
- xvii. Gas transmission and distribution
- xviii. LPG import and marketing
- xix. Power transmission and distribution
- xx. Banks and financial services
- xxi. Oil distribution

INVESTMENT PRIORITY AREAS

Based on the availability of essential raw material, technological base, future development plans and export potential of the industries in Pakistan, a priority list for industrial sub-sector is prepared. This list of priority areas for foreign investment is prepared as an indicative and not exhaustive. The list of industries is placed under Annexure - I.

In addition to institutional policies and facilities regarding foreign investment in Pakistan, the Government of Pakistan has taken number of steps to attract foreign investment and to improve the access of the domestic private sector to foreign currency resources and to facilitate the transfer of modern technology. They are as under:

I. DEVELOPMENT OF EXPORT PROCESSING ZONE

An Export Processing Zone at Karachi (KEPZ) is set up to attract foreign investment in export-oriented industries. Apart from foreign investors, Pakistanis working abroad can also invest in industrial projects in the Zone on the basis of non-repatriable investment. The concessions and facilities offered by the KEPZ which include duty free import and export of goods, tax exemption, etc. will continue to be available. Infra-structure facilities like water, electricity and telecommunication services, etc. have already been made available.

Government has also taken following decisions to improve the function/profitability of KEPZ:

- a. Exports from the Zone to the tariff area have been made permissible without any limit, subject to the provisions and restrictions contained in the Import Policy order and subject to payment of normal custom duty and other taxes levied on imports into the tariff area.

- b. Resident Pakistanis are allowed to invest in equity of joint ventures in the Zone with foreign collaboration upto 15%. However, it has now been decided by the Government that the level of participation by resident Pakistanis in the Zone projects could be upto 40%.
- c. Under KEPZ Rules 1981, the investment made by the non-resident Pakistanis was non-repatriable. However, it has now been decided by the Government that non-resident Pakistanis investment in the Zone be treated at par with other foreign investors both in terms of repatriation of their capital as well as profits.

II. INCENTIVES FOR INVESTMENT BY OVERSEAS PAKISTANIS

The concessions and facilities to overseas Pakistanis include concessions in custom duty on machinery imported against non-repatriable investment, advisory services by the Investment Centres abroad and simplified sanctioning procedure.

Overseas Pakistanis are not being asked to disclose the origin of the funds for investment and they can bring second-hand machinery without producing any surveyor's certificate. There is also no restriction on the re-sale of the machinery after it has been imported. Overseas Pakistanis can also invest their savings in new public share offers and in Modaraba Certificates on repatriable basis.

The scope of Non-Repatriable Investment(NRI) Scheme has now been enlarged so as to allow all machinery items which directly or indirectly support various sectors of economy, besides industrial sector, such as agriculture, horticulture, fisheries, live-stock etc. Goods such as combined-harvesters, agricultural tractors and implements used for tilling, planing, harvesting and earth-moving specialized vehicles, fishing boats, green houses, marine engines and accessories and milk collecting lorries will be covered under this scheme. To boost the

service sector, hotel equipment, buses, trucks, power generators, aircrafts have also been included in this list but condition of standardization and deletion will be observed wherever applicable.

III. GUIDELINES FOR CONTRACTING LOANS, CREDITS, ROYALTY, TECHNICAL FEE AGREEMENTS IN THE PRIVATE SECTOR

To promote foreign collaboration with the foreign enterprises it was announced in 1983-84 that requirements of clearance of the State Bank of Pakistan and the Ministry of Finance on terms and condition of foreign credits, including suppliers credit and credits under Pay As You Earn Scheme, will not be required if these conform to certain standard conditions. Agreements for payment or royalty, technical fees and employment of foreign experts could also be entered into without prior clearance of the State Bank of Pakistan or the Ministry of Finance if these conform to the standard terms fixed by the Government.

Agreements conforming to these guidelines will not require prior approval of any Government agency. The borrower will, however, be required to furnish one copy of the loan agreement to the Exchange Control Department, State Bank of Pakistan, Karachi and the External Finance Wing, Ministry of Finance, Islamabad for registration. The registration with the State Bank will constitute the authority for the Authorised dealer to remit the principal, interest and other charges, as specified in the agreement, to the creditor. Likewise, the party entering into agreements for transfer of technology involving payment of royalty, technical fees and payments to expatriates will submit one copy of the agreement to State Bank of Pakistan, Exchange Control Department, Karachi for registration. The registration with the State Bank will serve as the authority for payments in foreign exchange as admissible under the Foreign Private Investment (Promotion and Protection) Act, 1976.

It is expected that the foreign loans raised by the private sector will encourage foreign participation in high technology area and in

projects that will break new ground. These loans shall not carry any Government or State Bank guarantees. It would, however, be permissible for commercial banks to issue Bank Guarantees after due scrutiny and with the prior approval of the State Bank as required under the Foreign Exchange Regulation Act.

IV. GUIDELINES FOR FOREIGN LOANS CREDITS

- | | | |
|---|--|--|
| I. | Rate of Interest : | Rate/Limit for which <u>sanction is not required</u> |
| | (a) Interest on loans from banks commercial institutions. | Not exceeding 1.5% above LIBOR |
| | (b) Interest on Suppliers : | |
| | (i) Foreign Credit negotiated through Finance Institutions, viz. PICIC, IDBP etc. | At the rates negotiated by the institution concerned. |
| | (ii) In other cases | Not exceeding 1.5% above LIBOR. |
| Approval of the Government of Pakistan will be required where credit for export is provided at concessional rate by the banks/financial institutions under the instructions or policy of foreign Governments. | | |
| II. | Front end fees/charges for cash loans mentioned at (a) above where applicable: | |
| | (i) Commitment fee..... | Not exceeding 1/2% per annum. |
| | (ii) Management fee..... | Not exceeding 1/2% of loan for syndicated loans only. |
| | (iii) Legal Expenses: | |
| | (a) Single Bank Loan... | At actuals not exceeding \$ 5,000. |
| | (b) Syndicated Loan.... | At actuals not exceeding \$ 10,000. |
| III. | Down Payment..... | Subject to a maximum of 15%. |
| IV. | Repayment Period : | |
| | Pay As You Earn Scheme..... | Not less than 5 years. |
| | Other Loans..... | Not less than 7 years. |

LIBO Rate will be applicable in cases where loans are obtained from Euro-Currencies market. For loans and credits secured from other markets abroad, the margin will apply with reference to the rates prevailing in the respective centre. For example, in the case of a Japanese Yen loan obtained from Japanese domestic market, the margin will apply with reference to Japanese Long-term Prime Rate.

V. AGREEMENTS FOR TRANSFER OF TECHNOLOGY

1. ROYALTY

- a. Royalty is defined as a fee paid by a local firm to the foreign collaborator in consideration of:-
"Licence to use the foreign manufacture's patent/Brand name for marketing the products".
- b. No Royalty would be allowed :
 - i. On consumer goods for home market; and
 - ii. In cases where more than 50% shares are held by the owners of the patent/Trade Mark/Brand Name.
- c. The royalty shall be allowed as under:
 - i. Upto 3% on capital goods manufactured for exports;
 - ii. Upto 2% on consumer goods manufactured for exports; and
 - iii. Upto 1% on capital goods manufactured for home market,
- d. Royalty shall be for a period not exceeding 5 years.
- e. Royalty will be calculated and certified by the applicants' auditors on the basis of ex-factory price less Excise Duty and Sales Tax, if any, for home market and F.O.B. price for exports.

2. TECHNICAL FEE

- a. Technical fee is defined as a fee paid by the local firm to the foreign collaborators in consideration of:
 - i. Engineering and Technical Services including assistance on manufacturing process, testing and quality control, assistance by way of making available patented process and/or secret know-how, and rights to avail the technical/confidential information resulting from continuous technical research and development etc; and
 - ii. Technical training of local personnel.
- b. No technical fee shall be allowed on consumer goods or for simple conventional process, goods which are being produced in the country without foreign technical collaboration.
- c. Technical Fee may either be determined in lump-sum to be paid in instalments or be allowed as under:
 - i. Upto 3% on engineering goods and for such basic manufactures which required sophisticated technology.
 - ii. Upto 1.5% for product(s) other than(i) on new products only.
 - iii. The aggregate rate of Royalty and Technical Fee should not exceed 5%.
 - iv. Technical Fee shall not be allowed for more than 5 years.
 - v. Lump-sum technical fee will not exceed 5% of foreign exchange cost of plant and machinery and will be admissible only for them (i) and (ii).
- d. For basic manufacture, Technical fee will be calculated and certified by the company's auditors on the basis of ex-factory price.
- e. For assembly/manufacture, Technical Fee will be calculated on F.O.B. price of deleted components or parts of the product(s) which would be manufactured by local licensed firm or ex-factory price or locally produced components or parts of the product(s) whichever is less.

- f. While calculating technical fee, the Excise Duty, Sales Tax and the value of imported components and parts should be deleted from ex-factory price. Documentary evidence in support of the above may be called for from the applicant(s).
- g. In the agreement no provision would be made for any compulsory minimum payment of royalty/technical fee.
- h. In cases of payment of Technical fee in lump-sum it would be spread over a number of years and would be linked with transfer of technology/ services rendered. Further, the supplier of technology would affirm that the price is in line with the agreement made in other countries.
- i. There would be no requirement for purchase of raw-material components from a particular source.
- j. Agreements would be under the Pakistan Law.
- k. Arbitration would be held in Pakistan under Pakistan Law.

VI. GUIDELINES FOR ENGAGEMENT OF EXPATRIATES

Foreign experts/technicians may be employed without reference to any Government agency for rendering such services as supervision of installation, commissioning of the plant and training of personnel. Limits for per diem rates are indicated below:-

- | | |
|--|--|
| Canada, U.S.A., Western Europe & Japan | - Not exceeding \$ 250 per day. |
| East European countries and China | - The rates fixed by the concerned Government/ Organization of the respective countries. |
| All other countries..... | - Not exceeding \$ 175 per day. |

VII. GENERAL

The agreement not in conformity of the above will require prior clearance from the competent authority. Remittance of principal and interest, etc., in respect of foreign loans and royalty/technical fee will be made at the official rate of exchange prevailing on the date of remittance. Requests for exemption from income tax on interest, earned on foreign loans will be considered on case to case basis.

CHAPTER - III

This chapter includes an account of five small/medium sized companies. The companies are selected on the basis of their being either the priority sector and/or their domestic raw material use, export potentials and high probability for developing joint collaborations with foreign enterprises. Each company's information is divided into two sections namely; (i) salient features regarding the company, and; (ii) probable areas of collaborations with the company.

1. PAKISTAN PVC

SECTION - I

I. The unit was incorporated as public limited company in October, 1963. The factory is located in Gharo near Karachi. Its products range is as follows:

- a.. Caustic Soda (liquid) - 42% concentration.
- b. Hydrochloric acid 32% concentration.

- c. PVC Resin.
- d. PVC Pipe & Fittings.
- e. PVC Compounds.
- f. PVC Sheets & Rexine.

The capacity and production of the unit in 1987-88 was as follows:

| <u>Item</u> | <u>Capacity</u> | <u>Production</u> | <u>Capacity Utilization</u> |
|----------------------------|-----------------|-------------------|-----------------------------|
| PVC Resin (M.Tons) | 4050 | 2384 | 59% |
| PVC Compounds (M.Tons) | 1500 | 663 | 44% |
| PVC Pipes & Fittings(Tons) | 1800 | 1659 | 92% |
| Caustic Soda (Tons) | 7200 | 6006 | 83% |

II. INPUTS

Major inputs in the production are as follows:

- a. PVC Resin
 - i. Calcium Carbide
 - ii. Caustic Soda
 - iii. VCM Catalyst
 - iv. HCL
- b. Caustic Soda
 - i. Salt
 - ii. Mercury
 - iii. Electricity - for electrolysis
- c. PVC Pipes & Fittings
 - i. PVC Resin
 - ii. Stablizer L-3641 & 3690
 - iii. M-985

- d. PVC Compounds
 - i. PVC Resin
 - ii. D.O.P.

III. BUILDING AND INSTALLATION

It comprises following:

- a. PVC Resin Plant
- b. Caustic Soda Plant
- c. PVC Pipes & Fittings Plant
- d. PVC Compound Plant
- e. Administrative Block
- f. Stores

IV. MANAGEMENT AND ORGANIZATION

The company is registered under the Company Law as a Public Limited Company. It is managed by a Holding Corporation namely; Federal Chemical & Ceramics Corporation Ltd (FCCCL) under the control of Ministry of Production, Government of Pakistan. The company is headed by a Managing Director. It is organized in various departments namely; Production, Works, Purchase, Finance, etc.

V. FINANCIAL STRUCTURE

The financial structure of the company is given in the following table:

| Capital & Liabilities | As on 30th June | | Assets | As on 30th June | |
|---------------------------|-----------------|---------------|----------------------|-----------------|---------------|
| | 1987 | 1988 | | 1987 | 1988 |
| Paid up Capital | 49.86 | 49.86 | Fixed assets(Net) | 42.42 | 46.73 |
| Accumulated Profit/(Loss) | (124.94) | (108.79) | Other Investment | 0.75 | 0.75 |
| Net Equity | (75.08) | (58.93) | Deferred costs | 0.24 | - |
| Long term liabilities | 52.39 | 47.47 | Long term loans/Adv. | 3.15 | 1.13 |
| Deferred liabilities | 8.03 | 9.94 | Inventories | 43.87 | 46.27 |
| Current liabilities | 171.68 | 158.17 | Accounts Receivables | 44.23 | 31.91 |
| | | | Cash & Bank Balance | 22.36 | 29.86 |
| Total : | 157.02 | 156.65 | Total : | 157.02 | 156.65 |

Source : Annual Report - 1987-88, Experts Advisory Cell, Ministry of Production, Islamabad. page - 100.

VI. PLANT PERFORMANCE

Being more than 20 years old, the plant of the company has outlived its life. Despite this capacity utilization has been kept at a reasonably high level.

VII. COST AND PRICE STRUCTURE

| <u>Product</u> | <u>Production Cost</u> (per ton) | <u>Average Market Price</u> (per ton) |
|---------------------|-------------------------------------|--|
| PVC Resin | Rs. 27062/- | Rs. 33015/- |
| Caustic Soda 100Z | Rs. 10602/- | Rs. 12110/- |
| PVC Pipe & Fittings | Rs. 38042/- | Rs. 39500/- |
| PVC Compounds | Rs. 38321/- | Rs. 37848/- |

VIII. MARKET AND COMPETITORS

The position of market and competitors of the individual items is as follow:

a. PVC Resin

Local market : Being used for production of PVC Pipes. PVC Compounds, Rexine/Plastic Sheets etc.
Competitors : It competes with imported resin.

b. Caustic Soda

Local market : Being used by Soap Manufacturers and Textile industries
Competitors : M/s. Bela Chemicals & Sitara Chemical in private sector and M/s. Ittehad Chemicals in public sector.

c. PVC Pipes & Fittings

Local market : Being used in Government Projects of Water Supply schemes and domestic consumers.
Competitors : Mainly one large domestic private firm and other small scale producers.

d. PVC Compounds

Local market : Being used by Shoe and Cable manufacturers.

Competitors : Competes with imports.

IX. CONSTRAINTS

The company is experiencing difficulties in operations due to outdated technology. It is also faced with heavy indebtedness due to the past financial problems.

SECTION - II

The company has potentials of entering in collaboration and seeks assistance in number of areas. Some of them are as follows:

A. CAUSTIC SODA

The caustic soda is being manufactured with the graphite cell technology. The graphite cell has become obsolete due to its poor efficiency and environmental hazards and the trend now a days is for the more efficient membrane cells technology. The company is considering collaboration whereby it can change over to this modern technology.

PVC Resin

The plant and process is based on acetylene and it is a very low capacity plant. The company is considering increasing the capacity of the monomer plant through debottlenecking as major capital expenditure for capacity expansion would not be justified.

In the polymer plant the reaction cycle is very long and it takes about 16 hours for the reaction to be completed. The reduction in the cycle time would help in overcoming the capacity limitation. It would help the company further to make more polymers thus increasing the turnover with a comparatively low capital investment. The company is looking for reducing the batch time for the polymers and for the introduction of copolymers of PVC with the existing plant.

B. EQUIPMENT SUPPLY

The aging of the plant makes it necessary to keep on changing certain vital equipments for the smooth running of the plant. The cost of such replacement is very high mainly due to the fact that the equipment was supplied a long time back and it is no more in use. A request by the company is treated as one time order. The company's efforts to get alternates has been successful in part but it feels it can further broaden the range of suppliers to get better deal. Any assistance in the identification of such suppliers would definitely bring down the cost of replacement and would help the company in improving the plant capabilities.

C. NEED FOR BMR OF EXISTING PRODUCTION CAPACITY

The conversion of Caustic Soda Plant into Membrane Cell is being explored by the company.

D. TRAINING

Training in the field of management, chemical engineering, polymerization, plastics and related field is needed by the company. Collaboration in these fields with other industrial undertakings is a possibility.

E. MARKETING OF PRODUCTS

The company has approximately 1000 metric tons of PVC Pipes and Fittings from $\frac{1}{2}$ " to 12" diameters in almost all classes, including Conduits and pressure categories available for export to neighbouring countries. A collaboration in this field is solicited.

2. QUAIDABAD WOOLLEN MILLS LTD

SECTION - I

I. The company is registered as a Public Limited company under the Company Law. It was established in 1955 and incorporated as a Public Limited Company in October, 1963. It has a paid up capital of Rs 7.5 million. The company manufactures plain woven wilton carpets (pure wool). It has production capacity of 262672 sq. metres. Against this capacity in 1987-88 it produced 191293 sq. metres leading to a capacity utilization of 73%. The factory is located in Quaidabad near Sargodha.

II. INPUTS

It is based largely on domestic raw materials i.e., wool, cotton and jute which are locally available.

III. BUILDING AND INSTALLATION

The factory has a total area of about 13 acres. There are additional 16 acres for the residential colony.

The plant machinery includes following:

- a. Wool Scouring and Dyeing m/cs.
- b. Woollen Spinning Machines.
- c. Wilton Carpet Looms.
- d. Finishing/Shearing Machines.

IV. MANAGEMENT AND ORGANIZATION

The company is supervised by a Board of Directors whose chairman is Chairman of Pakistan Industrial Development Corporation (PIDC). PIDC is a holding corporation under the Ministry of Production, Government of Pakistan. The chief executive of the company is its Managing Director. Personnel of the company comprise following:

| | | | |
|----|-----------------------|---|------------|
| a. | Management | - | 1 |
| b. | Executives | - | 21 |
| c. | Foremen & Supervisors | - | 9 |
| d. | Workers | - | 500 |
| | Total : | - | <u>531</u> |

The Managing Director directly controls production department, service department, purchase department, stores department, sales and marketing department, labour, administrative, finance and accounts departments.

V. PLANT PERFORMANCE

The performance of the plant is at a fairly efficient level. It has improved its capacity utilization from 60% to about 72% in 1987-88 and it is expected to reach 90% soon.

VI. COST AND PRICE STRUCTURE

The unit cost of the woollen carpets in 1987-88 was around Rs 160.00 sq. metres. The average price of the carpet came to Rs 290.00 sq. metres. The export quality carpet price comes to £ 10.00 sq. metres CIF UK Port.

VII. FINANCIAL STRUCTURE

The financial position of the company is as follows:

(Rs in million)

| Capital & Liabilities | As on 30th June | | Assets | As on 30th June | |
|-----------------------|-----------------|-------------|----------------------|-----------------|-------|
| | 1987 | 1988 | | 1987 | 1988 |
| Paid up capital | 7.5 | 7.5 | Fixed assets (net) | 21.93 | 22.50 |
| Reserves | - | - | Other investment | - | - |
| Acc.profit/(loss) | <u>20.6</u> | <u>3.09</u> | Deferred cost | - | - |
| Net equity | 9.56 | 10.59 | Long erm loans | 0.29 | 0.29 |
| Long term liabilities | 13.22 | 11.75 | Inventories | 18.05 | 14.31 |
| Deferred liabilities | 3.23 | 4.01 | Accounts Receivable | 15.87 | 14.54 |
| Current liabilities | 33.52 | 29.13 | Cash & Bank Balances | 3.39 | 3.84 |
| Total : | 59.53 | 55.48 | Total : | 59.53 | 55.48 |

Source : Annual Report - 1987-88, Experts Advisory Cell, Ministry of Production. pages - 355 and 356

The domestic market is supplied with different types of carpets i.e., 100% woollen wilton, axminster, mixtures, tufted, synthetic, non-woven products by 14 different private units. Quaidabad carpets are of high quality carpets and enjoy very high reputation. It enjoys about 55% of the local market in sale of plain woollen carpets.

VIII. CONSTRAINTS

Although the company is producing a very high quality plain wilton carpets, the local market has limitation in absorbing the high quality carpets. Therefore, the company is making a drive for a push in the foreign market. It has high hopes because of its high quality carpets.

SECTION - II

The company expects a joint collaboration or assistance in the following areas:

A. MARKETING OF PRODUCTS

Quaidabad Woollen Mills manufactures plain woven wilton carpets which rank high in standards not only in the local market but also in the foreign countries. The product enjoys "WOOL MARK" from International Wool Secretariat (IWS), UK. The company has recently introduced itself in the foreign market with a significant success. It is seeking collaboration with a foreign party as joint venture in marketing as well as in the expansion of production capacity.

B. EXPANSION OF CAPACITY

The company at present is operating at around 80% capacity and catering to the high quality carpet demand in the local market. However, after the recent indications of success in the foreign market the company is looking into the possibilities of expansion of its capacity in spinning, weaving and finishing production lines. The magnitude of the expansion would be determined by the size of the foreign market the company could capture in collaboration with the prospective foreign partners.

C. EQUIPMENT AND SUPPLY

In a joint venture with the foreign party the company envisages that the equipment for woollen spinning, weaving and finishing processes would be provided by the foreign investor while the local finances such as working capital would be arranged by the company.

D. JOINT VENTURE

The management of the company, subject to the Government approval, considers it a high probability of launching a joint venture in the field of marketing as well as in the equipments supply.

3. KURRAM CHEMICALS (PVT) LTD

I. The unit was established in 1951 and purchased by the Government in 1954. It has annual rated capacity of 4000 kg of santonin. It diversified its line of production in 1977-78 towards pharamaceuticals with rated capacity of different types of syrups 1000 litres and 3.1 million tablets. In 1987-88 it produced 1226 kg santonin leading to 41% capacity utilization and diasogenin 1575 kg 31%. The factory is located near Rawalpindi.

II. PRODUCT RANGE

The present product range of the company is as follows:

1. SANTONIN

It is a well-known wormifuge and is extracted from Artimisia grown in the northern areas of Pakistan. The product is old and it is being gradually replaced by synthetic products. At present it is being exported to Japan, Germany, England, Switzerland and some African countries. The demand for the product is static.

2. EPHEDRINE HCL./SULPHATE BP/USP GRADE

The Ephedrine and its salts are extracted from the Ephedra Herb grown wildy in the Baluchistan province. The product is a basic raw material for most of the cough remedies.

3. DIOSGENIN

The production of diosgenin a starting material for the syntehsis of steroid is mainly produced from locally available roots. The product is mainly supplied to a multi-national company.

4. PHARMACEUTICAL SPECIALITIES

The present facilities of this section are being used for toll manufacturing of M/s. Rhone Poulenc products. This includes various syrups and tablets.

III. PLANT

The existing plant consists of two divisions:

1. BASIC MANUFACTURING PLANT

This plant consists of various equipment like Mild Steel, Extraction Units, Glasslined Reactors, Stainless Steel pans, Fluidized Bed Dryer for basic production of pharmaceutical raw materials. The mild steel plant is locally fabricated whereas the glassline and stainless steel equipment is imported. The services are provided by a steam boiler.

PHARMACEUTICAL SPECIALITIES SECTION

This section consists of plant and machinery for manufacture of various types of pharmaceutical specialities in dosage form like syrups, suspension tablets and ointment.

IV. PLANT PERFORMANCE

At present the performance of the plant is satisfactory but owing to the demand constraint the capacity utilization is less than 40%.

V. INPUTS

The basic inputs are medicinal plants and various types of solvents like Benzene, Toluene, Xylene and Ethyl Alcohol. Main acids used are Hydrochloric Acids, Sulphuric Acids. Sodium Hydroxide is also used in a limited scale. Steam for various operations is generated by a Steam Boiler run on furnace oil.

VI. BUILDING AND INSTALLATION

The present buildings and installation are for basic manufacture of pharmaceutical raw material as well as for residential purposes.

VII. MANAGEMENT

The company is managed by Federal Chemical & Ceramics Corporation Ltd (FCCCL) under the Ministry of Production. The site management is supervised by the Managing Director and his team consisting of Production Manager, Finance Manager, Commercial Manager and Store Manager.

VIII. ORGANISATION

The company is supervised by a Board of Directors chaired by the Chairman, FCCCL. The company has 120 employees with the ratio of management to labour at 1:29.

IX. FINANCIAL STRUCTURE

The company is registered as a Private Limited Company with paid up capital of Rs .5 lacs. 75% shares of the company are controlled by FCCCL and 25% with the Marker Alkaloids Quetta a private group. The details of financial structure is given in the following table:

| (Rs in million) | | | | | |
|-------------------------------|-----------------|--------------|-------------------------|-----------------|--------------|
| Capital & Liabilities | As on 30th June | | Assets | As on 30th June | |
| | 1987 | 1988 | | 1987 | 1988 |
| Paid up Capital | 0.50 | 0.50 | Fixed (Net) | 6.45 | 8.21 |
| Reserves | - | - | Deferred costs | - | - |
| Accumulated Profit/ (Loss) | (4.59) | (7.34) | Inventories | 6.84 | 7.81 |
| Net Equity | (4.09) | (6.84) | Accounts receivables | 1.92 | 0.99 |
| Long term liabilities | 9.11 | 12.87 | Cash & Bank Balance | 0.62 | 0.28 |
| Deferred Liabilities | 1.49 | 1.63 | | | |
| Current liabilities | 9.32 | 9.63 | | | |
| TOTAL: | 15.83 | 17.29 | Total: | 15.83 | 17.29 |

Source: Annual Report 1987-88, Experts Advisory Cell, Ministry of Production. Pages 67 and 68.

X. COST AND PRICE STRUCTURE

In 1987-88 the manufacturing cost and price was as follows:

| Products | Unit Cost | Average Market Price |
|---------------|-----------|----------------------|
| Santonin | 1562 | 2476/kg |
| Diosgenin | 1015 | 1100/kg |
| Ephedrine HCL | 1780 | 1750/kg |

XI. MARKET AND COMPETITORS

Santonin is only for export market which is declining every year in view of the synthetic competitors. Against the annual domestic of Ephedrine HCL around 9,000 kgs the company produces 4,500 kgs. The company has to compete with cheap synthetic Ephedrine. It is able to sell all its product due to 80% protective duty on imported Ephedrine.

The total production of Diosgenin which is 4000 kgs. per year is being sold out to a locally based multi-national pharmaceutical firm.

XII. CONSTRAINTS

The main constraint in the production of basic raw material is the availability of quality medicinal herbs from various parts of the country. The quantity as well as quality can not be ensured. As such some time due to shortage of raw material the total production capacity is not utilized.

Production technologies of the major products have been developed locally. It is believed there are still certain areas where improvements can be made for more economical operations.

SECTION-II

Since the company manufacturing process is based on locally available herbs and it is somewhat unique and difficult process it needs technical assistance and collaboration in various areas. These areas are as follows:

A. EXPERTISE

The expertise in production of fine chemicals and pharmaceutical and formulation in dosage form shall be useful. The main expertise in the basic manufacture of phyto pharmaceutical and synthetic pharmaceutical raw material is needed.

B. INTRODUCTION OF NEW TECHNOLOGIES

New technology on the extraction of active ingredient from the medicinal plants, their separation and purification is needed.

C. TRAINING

Technical training in the field of production in basic pharmaceutical and quality control and quality assurance is required.

D. EXPANSION OF CAPACITY

The expansion of present capacity for the production of pharmaceutical specialities like Syrups, Tablets, ointment etc. is required.

E. EQUIPMENT SUPPLY

Pharmaceutical machinery both for formulation and basic manufacture is needed.

F. JOINT VENTURE

Joint venture on basic manufacture of pharmaceutical raw material like Ampiciline, Amoniline, paracetamol, etc. can be considered.

G. NEED FOR BMR OF EXISTING PRODUCTION CAPACITY

BMR is required for the production of basic pharmaceutical raw materials like Ephedrine, Pseudo-Ephedrine, Diosgenin etc.

4. NATIONAL PETROCARBON (PVT) LTD

SECTION-I

The unit has two Divisions namely; Petro-Specialities Division and Carbon Black Division. Petro-Specialities Division was established in 1976 and started commercial production in May, 1976, with the annual rated capacity of 7500 tons of speciality asphalts and 7500 tons of speciality oils. Petrocarbon Division was established in September, 1975, and started commercial production in June, 1980, with the annual rated capacity of 7200 M. Tons of carbon black. The two units (located near Karachi) were merged into a private limited company in 1981. Since the collaboration is sought in Petrocarbon Division, in this report emphasis is given to this section of the company.

I. PRODUCTION CAPACITY

The capacity utilization of the company is as follows:

| Products | Capacity | Actual Production | Capacity Utilization |
|--------------------------|-----------|-------------------|----------------------|
| Asphalt (M.Tons) | 7500 | 4769 | 64% |
| Speciality oils (M.Tons) | 7500 | 3798 | 49% |
| Carbon Black (M.Tons) | 7200/8100 | 6207 | 77% |

II. PLANT, BUILDING AND STRUCTURE

The details of the carbon black plant are as follows:

- a. Factory Building
- b. Feedstock Storage Tanks
- c. Electric Installation
- d. Plant and Machinery

III. PLANT PERFORMANCE

The carbon black plant is operating at 50% to 80% capacity.

IV. INPUTS

The plant is being operated with Carbon Oil received from sister company i.e., National Refinery Ltd.

V. MANAGEMENT AND ORGANIZATION

The National Petrocarbon (Pvt) Ltd is a unit of State Petroleum Refining & Petrochemical Corporation (PERAC). It is wholly owned by the Government with a paid up capital of Rs 50 million. The management of the company is supervised by a Board of Directors headed by the Chairman of PERAC. The chief executive i.e., Managing Directors is assisted by General Managers Finance, Marketing, Plant and Personnel.

VI. PRODUCT RANGE

Petrocarbon Division of the company produces hard and soft grades carbon black.

VII. COST AND PRICE STRUCTURE

In 1987-88 the manufacturing unit cost and price were as follows:

| Products | Unit Cost | Price |
|----------------------|-----------|-------|
| Carbon Black | 9881 | 15247 |
| Specialities Asphalt | 4915 | 5103 |
| Speciality Oil | 9919 | 15369 |

VIII. FINANCIAL STRUCTURE

The financial position of the unit is given in the following table:

(Rs in million)

| Capital & Liabilities | As on 30th June | | Assets | As on 30th June | |
|-----------------------|-----------------|---------------|----------------------|-----------------|---------------|
| | 1987 | 1988 | | 1987 | 1988 |
| Paid up capital | 50.00 | 50.00 | Fixed Assets (Net) | 132.00 | 128.12 |
| Reserves | - | - | Other Investments | - | - |
| Acc.Profit/(Loss) | (2.26) | 3.55 | Deferred Cost | - | - |
| Net equity | 47.74 | 53.55 | Long Term Loans | - | 0.03 |
| Long Term Liabilities | 39.86 | 32.40 | Inventories | 37.61 | 40.59 |
| Deferred Liabilities | 0.12 | 0.23 | Accounts Receivables | 25.10 | 45.03 |
| Current Liabilities | 109.94 | 132.09 | Cash & Bank Balance | 2.95 | 4.50 |
| Total: | 197.66 | 218.27 | Total: | 197.66 | 218.27 |

Source: Annual Report "1987-88, Experts Advisory Cell, Ministry of Production. page - 575.

IX. CONSTRAINTS

Carbon Black is facing tough competition from imports which are being sold at dumping prices. The market for Carbon Black in Pakistan is limited. The major buyer of the product is a locally based multi-national companies.

1. Feed-stock i.e., carbon oil, received from National Refinery contains high percentage of sulphur - 4 - 5% which effects filter bags and has low BCI, which reduces the yield of finished products.
2. The company is facing tough competition as the imports have significantly increased since import duty is reduced from 80% to 20%.

SECTION-II

A. TECHNICAL ENTERPRISE

Following areas for technical expertise and consultancy are identified for Carbon Black Division:

1. Modification in the existing bag filter to ensure longer bag life span and facilitate maintenance in case of immature bag failure. Improvement in bagging machine system through modification in the existing bagging machine for:

- a. Reduction of high level pollution.
- b. Smooth-lining uneven weightage problem.

2. Grit Problem

Some of the grades of carbon black contain grit due to which the company is facing marketing problems. The company is presently in the process of importing a grit pulverizer from Japan to overcome this problem but the company is still interested in identifying the factors responsible for formulation of grit in carbon black.

3. In order to achieve better yield and energy conservation the unit would like to seek advice on the selection of importable feed-stock for mixing with the local feed-stock without disturbing the ASTM standard for DBP, Iodine, Grit range and PD.

B. INTRODUCTION OF NEW TECHNOLOGIES

In order to find out new avenues for consumption of carbon black the company needs advice on putting up additional facilities for the manufacture of printing ink quality carbon black in Pakistan.

The company is also interested in introducing white oil in the existing facilities. Initial studies reveals its production would be incompetent. The company would like to have a formulation to produce white oil saleable in the competitive market.

C. TRAINING

The company needs to train its operating personnel for safe and economical operation of carbon black plant.

5. SWAT CERAMICS COMPANY

SECTION-I

I. The unit was incorporated as Private Limited Company in May, 1975, and came into commercial production in October, 1978. It is registered as a Private Limited Company with a share application money of Rs 1.42 million. The annual capacity of the unit is at 1.8 million dozen tiles of 4"x4" size (convertable into tiles of 6"x6" in ratio of 9:4) and 144,000 pieces of sanitary wares. The capacity utilization in 1987-88 was as follows:

| Major Products | Capacity Utilization |
|----------------|----------------------|
|----------------|----------------------|

Tiles

| | |
|-----------------------|-------|
| 150x150 MM(000 dozen) | 28.83 |
| 108x108 MM(000 dozen) | |

Sanitary-wares (PCS)

| | |
|-------|-------|
| Small | 24.89 |
| Big | |

II. INPUTS

The unit is based on the locally available raw material i.e., Local Clays, Imported China Clays, Ball Clays, Stains, Fritts and Zirconium Silicate.

III. PLANT

Following major Presses are available in the plant:

- a. Friction Presses - 3 by Dobious (W.F.)
- b. Hydraulic Press 550 - 1 by SACMI (Italy)
- c. Hydraulic Press - 1 by Welco.

The capacity in tonnage is Wall Tiles 2400 tons per annum and sanitary wares 2000 tons per annum.

IV. ORGANIZATION AND MANAGEMENT

The company is being managed and supervised by a Board of Directors. Its Chief Executive is the Managing Director and it is located in Shaidu, Nowshera, District Peshawar, N.W.F.P.

V. PLANT PERFORMANCE

The plant is operating at a less than 30% capacity utilization. Major reason for low capacity utilization is the market constraint. It is also because of the old and outdated machines.

PRODUCT RANGE

The details of the wall tiles and sanitary tiles being produced by the company is as follows:

- a. Wall Tiles in Plain & Print - 150x150mm and 108x108mm
- b. Sanitary-wares White/Coloured & Special Colour - it manufactures sets and Loose Pieces.

VI. COST AND PRICE STRUCTURE

- a. Cost to make & sell - Walltiles 4"x4" Rs 23.36 per dozen
- b. Cost to make & sell - Walltiles 6"x6" Rs 48.33 per dozen
- c. Cost to make & sell - Sanitarywares Rs 546.00 per piece
- d. Price Structure(Average) W.T.4"x4" Rs 17.56 per dozen
- e. Price Structure(Average) W.T.6"x6" Rs 43.47 per dozen
- f. Price Structure(Average) S.Wares Rs 248.00 per piece

MARKET AND COMPETITORS

The company is selling its products in a highly competitive position. It is competing with the local competitors and also imports.

VII. CONSTRAINTS

The major problem faced by the company is demand constraint and cut throat competition with domestic and imported products. In view

of the age of the plant it also has a problem of outlived machinery effecting the quality.

1. WALL TILES. Due to old machines, the quality of walltiles is not competitive. New presses alongwith modernization of plant will ensure good class of products.

2. Sanitarywares. New moulds/designs are required to produce sanitarywares of the latest designs to face the competitors.

VIII. FINANCIAL POSITION

The financial position of the company is as follows:

(Rs in million)

| Capital & Liabilities | As on 30th June | | Assets | As on 30th June | |
|-------------------------------|-----------------|---------------|----------------------|-----------------|---------------|
| | 1987 | 1988 | | 1987 | 1988 |
| Paid up capital | 15.10 | 15.10 | Fixed assets (Net) | 63.56 | 60.51 |
| Accumulated profit/ (Loss) | (43.00) | (64.47) | Long term loans/Adv. | 0.03 | 0.48 |
| Net equity | (27.90) | (49.37) | Inventories | 37.46 | 29.44 |
| Long term liabilities | 4.16 | 4.11 | Accounts receivables | 16.78 | 18.99 |
| Deferred liabilities | 1.19 | 2.07 | Cash & Bank Balance | 0.76 | 1.03 |
| Current liabilities | 141.14 | 153.64 | | | |
| Total: | 118.59 | 110.45 | Total: | 118.59 | 110.45 |

Source: Annual Report "1987-88, Experts Advisory Cell, Ministry of Production. pages 127 and 128.

SECTION-II

The company is looking for collaboration and assistance in the various areas:

A. EXPERTISE

It is looking for skill in laboratory tests and research and development, especially multi-colour printing.

B. INTRODUCTION OF NEW TECHNOLOGIES

It envisages the introduction of Roller Kiln technology fast and speedy production of tiles to meet the changing market requirements.

C. TRAINING

The company is striving to train its engineers to gain expertise in multi-colour printing.

D. JOINT PRODUCTION

In order to diversify the product mix the company is seeking joint collaboration for the production of Table Wares.

E. EQUIPMENT SUPPLY

At present the company is importing fritts at a cost of Rs 44,000.00 per ton. The company is striving for the funds upto Rs 5 million for the fritts making plant.

F. JOINT VENTURE

In its efforts to diversify products and enter the market of table ware it seeks foreign collaboration. from World known table ware producers. The company is envisaging an investment of Rs 150 million.

G. NEED FOR BMR OF EXISTING PRODUCTION
CAPACITY

The company expects to set up four Presses to ensure production of fault free tiles. It is also looking for setting up designing facilities to produce decorative tiles in multi-colour printing. For this necessary equipments and training of the personnel shall be required.

INVESTMENT PRIORITY AREAS

I. AGRO-BASED INDUSTRIES

- a. Feeding and fattening ingredients for livestock.
- b. By-products of sugarcane/sugar.
- c. Textile weaving.
- d. Newsprint and craft paper.
- e. Mechanical/chemical pulp.
- f. Processing, canning and preservation of fruits and vegetables.

II. CHEMICALS

- a. Fertilizer.
- b. Tannery Chemicals.
- c. Petroleum derivatives.
- d. Basic manufacture of insecticides and pesticides.
- e. Basic manufacture of pharmaceuticals and its research products.
- f. Terephthalic Acid (TPA).
- g. Mono Ethylene Glycol (MEG).
- h. Dyes/Pigments.
- i. Coaltar fractionization/distillation.
- j. Fibre glass.
- k. Plastic raw materials like PVC, Polyethylene, Polypropylene.
- l. Methanol.
- m. Special Glass.
- n. High quality ceramic wares.
- o. Catalyst manufacturing.
- p. Industrial solvents.
- q. Synthetic rubber

III. MECHANICAL ENGINEERING ITEMS

- a. Engines and its parts for automobile industry.
- b. Forging/casting of automobile parts.
- c. Dies/moulds.
- d. Gear boxes.
- e. Differential gears
- f. Tie rod ends.
- g. Oil/Fuel pumps.
- h. Gauges.
- i. Brakes.
- j. Steering gears.
- k. Wind shields.

IV. METALLURGICAL PRODUCTS

- a. Alloy steel manufacturing.
- b. Aluminium alloy manufacturing.
- c. Copper alloy manufacturing.
- d. Zinc alloy manufacturing.
- e. Other non-ferrous alloy manufacturing
- f. Non-ferrous alloys.
- g. High pressure hose pipes.
- h. Seamless pressure pipes of large diameter.

V. MACHINERY AND EQUIPMENT

- a. Hydraulic machinery, presses, pumps and other equipment.
- b. Computerised machinery for boring and cutting, grinding and other purpose equipment.
- c. Injection moulding machines.
- d. Pressure die casting machines.
- e. Tolls and bits manufacturing.
- f. Testing equipment manufacturing.

- g. Oil exploring rigs.
- h. Textile weaving and spinning machinery.
- i. Paper and pulp making machinery.

VI. ELECTRICAL/ELECTRONICS

- a. Capacitors.
- b. Resistors.
- c. Deflection yokes
- d. Coils
- e. Picture tubes
- f. Diodes.
- g. Integrated circuits.
- h. Tuners.
- i. Heavy electrical equipment.
- j. High voltage circuit breakers.
- k. Transformers
(66 KV and above)
- l. Chips, silicon and solar energy
photovoltaic cells.
- m. Tungsten filament and cathods.
- n. Compressors.
- o. Expansion valves.
- p. Overload relays.
- q. Copper tubing.
- r. Condensers.
- s. Thermostats.
- t. Electro-medical equipments.
- u. Radars, microwave and HP equipment.
- v. Generators.
- w. Computers.
- x. Auto bulbs.
- y. VCRs.
- z. Video/Audio Heads.
- xx. Video/Audio Tapes.

VII. OTHERS

- A. Mineral exploration and processing.