THE ISLAMIC REPUBLIC OF PAKISTAN

FEASIBILITY REPORT

ON

AGRICULTURAL DEVELOPMENT PROJECT

WITH

WIDENING OF PAT FEEDER CANAL

VOLUME II

(APPENDIX-I)

DECEMBER 1982

JAPAN INTERNATIONAL COOPERATION AGENCY

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CONTENTS OF APPENDIX

LIST OF TABLE

LIST OF FIGURE

CHAPTER I. INTRODUCTION

Counterpart Personnel Assigned to the Project

1.	Liaison Officer (in Quetta) Mr. Shirin Khan Loni	Superintending Engr. E/M Circle Irrigation & Power Dept. Baluchistan
2.	Liaison Officer (in Project) Mr. Mohammad Azam Baluch	Superintending Engr. Sibi Division Irrigation & Power Dept. Baluchistan
3.	Liaison Officer (in WAPDA) Mr. Muzaffar Iqbal	Director Investigation Div., WAPDA Quetta
4.	Irrigation Mr. Gul Mohammad Khoso	Executive Engr. Pat Feeder Canal, Sibi Div. Irrigation & Power Dept., Baluchistan
5.	Agro-Economy Mr. Muhammad Amin	Senior Economist WAPDA Lahore
6.	Agronomy Mr. Mohsin Wahla	Senior Agronomist WAPDA Lahore
7.	Soil Mr. Malik Zahur Ahmad	Junior Research Officer (Soil) WAPDA Lahore
8.	Structural Design Mr. M. Javed Sheikh	Asst. Director Central Design Office, WAPDA Lahore
9.	Hydrology Mr. Abdul Khaliq Soomro	Junior Hydrologist WAPDA Karachi

PERSONNEL CONCERNS THE TEAM CONTRACTED

MINISTRY OF FINANCE, PLANNING AND ECONOMIC AFFAIRS

ECONOMIC AFFAIRS DIVISION (EAD)

Mr. Ejaz Ahmad Naik, Secretary, Economic Affairs Division
Mr. Syed Ghulam Ahmad, Joint Secretary, EAD
Mr. Afzaluddin Ahmad, Deputy Chief, EAD
Mr. Mohammad Afar, Section Officer, EAD

MINISTRY OF PLANNING, DEVELOPMENT AND POPULATION

PLANNING & DEVELOPMENT DIVISION (PDD)

Mr. A. U. Zafar, Additional Secretary, PDD
Mr. S. Faiz. Ahmad Zaidi, Deputy Chief (Water) PDD

MINISTRY OF WATER AND POWER (MWP)

Mr. Maj. Gen. Agha Manzoor Rauf, Additional Secretary, WMP
Mr. Basshir Ahmad

MINISTRY OF FOOD, AGRICULTURE AND COOPERATIVE

PAKISTAN AGRICULTURAL RESEARCH COUNCIL (PARC)

Dr. Amir Mohammad, Chairman
Mr. Shahid Ahmad, Director
Dr. E. Salahudrin Ahmad, Director of Arid Zone Research Int. (Quetta)

DEPARTMENT OF SOIL SURVEY (DSS)

Dr. M. Bashir Choudhri, Director General, DSS
Mr. Mohd Rafiq, Director (Basic Soil Investigation)

AGRICULTURAL CENSUS ORGANIZATION

Mr. Akhtan Ali Sheikh, Joint Agricultural Census Commissioner

STATISTICS DIVISION

FEDERAL BUREAU OF STATISTICS

Mr. Syed Safdar Hussain, Director

POPULATION CENSUS ORGANISATION

Mr. Rave Insaf Ali, Joint Population Census Commissioner

GOVERNMENT OF BALUCHISTAN

Mr. Salim Abbas Jilani, Additional Chief Secretary, Baluchistan

IRRIGATION AND POWER DEPARTMENT (IPD)

Mr. Abdul Raziq Khan, Secretary, IPD
Mr. Sardar Mohammad Sharif, Chief Engr., IPD
Mr. Mohammad Amin, Superintendent Engr., Quetta Div.
Mr. Abdus Salam, Superintendent Engr., Kalat Irrigation
Mr. Munawar Kham, Executive Engr., Irrigation, Quetta

PLANNING AND DEVELOPMENT DEPARTMENT (PDD)

Mr. Ata Mohammad Jafar, Secretary, PDD
Mr. Taj. H. Naeem, Chief (Water & Power), PDD
Mr. Akhtar Muhammad Khan, Chief, Agriculture Section, PDD
Mr. Muhammed Shafig, Deputy Director, Bureau of Statistics

AGRICULTURE, COOPERATION AND FOOD DEPARTMENT (ACFD)

Mr. Brig. M. Usman Hassan, SJ, Secretary, ACFD
Mr. Zulfiqar Ali Khan, Director Agriculture (Extension)
Dr. Hasan Jafar, Director Agriculture Research Institute
Dr. Saeed Ahmad, Director Fruits Section, Research Institute
Dr. Bajor A. Hameed, Director Agricultural Research Institute
Mr. Muhammad Ikramul Haq, Economic Botanist, Research Institute
Mr. Abdul Samad Ghilzai, Statistician Directorate of Agriculture (Extension)
Mr. Mushta Q. Ahmed, Agricultural Officer (Planning)

HOME, TRIBAL AFFAIRS AND TOURISM DEPARTMENT

Mr. Asadullah Khan, Secretary
Mr. Nasir Ahmed Durroni, Joint Secretary (Home)

DEPUTY COMMISSIONER OFFICE

Mr. Miar Mohammad Jamil, Deputy Commissioneer, District Nasirabad
Mr. Harun Rashid, Superintendent

LAND REVENUE OFFICE

Mr. Haji Abdul Aziz, Tehsildar Dera Murad Jamali
Mr. Syed Aurang Shah, Tehsildar Jhatpat
Mr. Syed Mueen-Uddin Shah, Tehsildar Usta Mohammad

SIBI DIVISION OF IRRIGATION & POWER DEPARTMENT

Mr. Sher Ali, Executive Engineer
Mr. Dawan Budhar Das, Asst. Engineer
Mr. Ajaz Ahmed Khan, Sub-Divisional Officer Dera Murad Jamali

SIBI DIVISION OF AGRICULTURE DEPARTMENT

Mr. Shah Mir Khan, Deputy Director, Agriculture (Extension)
Mr. Zafar Iqbal Awan, Extra Asst. Director, Nasirabad District
Mr. Mohammad Afzal, Asst. Plant Protection Officer, Nasirabad

LIVESTOCK DEPARTMENT

Dr. Mohd Akbar Bajwah, Assistant Director (Nasirabad)

PASSCO JACOBABAD

Mr. Mohammad Ramzan Rahja, Superintendent
Mr. Khalid Irshad Qureshi, Assistant Purchase Inspector

GOVERNMENT OF PUNJAB

IRRIGATION AND POWER DEPARTMENT, PUNJAB
IRRIGATION RESEARCH INSTITUTE

IRRIGATION DEPARTMENT

Mr. Khalid Faruq, Chief Engr. Irrigation Research

LAND RECLAMATION DEPARTMENT

Mr. Nuruddin Ahmad, Directorate of Land Reclamation

Mr. A. Shakoor, Senior Research Officer (Hydraulics)

AYUB AGRICULTURAL RESEARCH INSTITUTE IN FAISALABAD

Dr. S. A. Qureshi, Director General (Research)

Mr. Hayat Mohammad Bhatti, Agricultural Chemist (Soils)

PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMY (PIDE)

Miss Shamim Shahebzada, Project Evaluation Section,
Agricultural Research Office, Islamabad

PAKISTAN AGRICULTURAL STORAGE & SERVICES CORPORATION (PASSCO)

Mr. Muhammad Yousaf Bhatti, Project Manager, Jacobabad

AGRICULTURAL DEVELOPMENT BANK OF PAKISTAN (ADBP)

Mr. Muhammad Rafiq Awan, Regional Manager, Quetta

RICE EXPORT CORPORATION OF PAKISTAN LTD (RECP)

Dr. Abdul Ghani, Manager (Finance)

WATER AND POWER DEVELOPMENT AUTHORITY (WAPDA)

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Mr. Mohiuddin Khan, General Manager, Planning Div.

Mr. Baddrudi, Deputy General Manager, Planning Div.

Mr. M. H. Choudhri, Chief Engr., Central Design Office
Room 710 of WAPDA House

Mr. I. A. Khaliq, Chief Engr., Water Resources Planning

Mr. Mohammed Ashraf, Chief Engr., Survey & Research

Mr. Zakria, Director, Planning

Mr. Mohammad Munir, Project Director, Water Resourced Planning

Mr. Muhammad Hussain, Deputy Director, Planning & Investigation

Mr. I. A. Humayun, Director Design (Irrigation)
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Dr. Izhar Ul Haq, Director Design (Soil)
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Mr. Mohammad Salim Warsi, Director Technical Surface Water
Hydrology Project, 88 - Main Gulberg, Lahore

Mr. Mohammad Farooque, Director, Soil Salinity and Water
Table Survey (SS.WS)

Mr. Amin Jan, Deputy Director, SSWS

Mr. Muhamad Hussain, Senior Economist

WAPDA, SUNNY VIEW ESTATE, LAHORE

Mr. Muhammad Afzal, Director, Agriculture and Economics
Planning and Investigation Division

TARBELA DAM OFFICE

Mr. F. Munem, Deputy Project Director

Mr. Bakhtiar Khan, Senior Officer Protocol

Mr. Jaffery, Public Relation Officer

WAPDA, QUETTA HYDROGEOLOGY

Mr. Mohammad Ibrahim Khan, Project Director, Groundwater

OFFICIALS OF JAPANESE EMBASSY IN PAKISTAN

Mr. Tateo SUZUKI, Ambassador
Mr. Tadashi SAGISAKA, Secretary
Mr. Ritaro MATSUMOTO, Secretary
Mr. Shigeru NAKAMURA, Secretary
Mr. Yoshinari OHSHIMA, Secretary
Mr. Abdullah Farooqui, Economic Advisor
Mr. Ihei MAKITA, Consul General (in Karachi)

CHAPTER II. ECONOMIC AND SECTORAL BACKGROUND

II.1. NATIONAL LEVEL BACKGROUND

Lying between the latitudes of 23° 30' and 36° 45' North and between the longitudes of 61° and 75° 31' East, Pakistan stretches over 994 miles (1,600 kms) north to south and is about 550 miles (885 kms) broad east to west. It comprises four provinces: Baluchistan, North West Frontier, the Punjab and Sind. Of these, Baluchistan is the largest province, with an area of 134,050 sq.miles (347,190 sq.kms), followed by the Punjab with an area of 79,634 sq.miles (206,251 sq.kms), inclusive of the Federal Capital Area. Sind has an area of 54,406 sq.miles (140,913 sq.kms), North West Frontier 28,773 sq.miles (74,521 sq.kms) and the Federally Administered Tribal Areas (FATA) cover 10,510 sq.miles (27,219 sq.kms). The total area is 307,373 sq.miles (796,095 sq.kms). (See Table II-1, Appendix)

In 1981, the fourth Census was carried out from March 1 to 15. The provisional results were made public on July 29. The population stood at 83.782 million as against 65.309 million in 1972 and merely 32.500 million in 1947 at the time of Independence. This does not include the Afghan refugees in Pakistan since they were being counted and registered day by day by the relevant authorities and also the resident foreign members of the diplomatic missions. The statistics for Azad Kashmir would be made available later. However, the figures are exclusive of the States of Junagarh and Manavadar, which are currently under forcible occupation of India. (See Table II-2, Appendix)

The population has increased by 18.4 million over the eight and a half year period between the 1972 and the 1981 census. This works out a growth rate of 28.28 percent or an average rate of around 2.98 percent per annum.

The Baluchistan population showed an increase of 77.23 percent over the 1972 census figures because it was for the first time that a complete physical enumeration of the people in these area was undertaken. This time a scientific and correct methodology was adopted.

The density of population per square kilometer increased from 81 to 105 in 1981. The ratio of male and female population slightly narrowed with 114 men in 1972 to 111 men in 1981 for every 100 women. (See Table II-1, Appendix)

For thousands of years from the time immemorial, people have entered through both the north-east and north-west routes settling and mixing with the local population. These included Dravidians, Aryans, Greeks, Turks, Persians, Afghans, Arabs and Moghals. However, the dominant racial type in Pakistan is the Indo-Aryans. Some people in the Kalat region have Dravidian traces. The Baluchs and Pathans are predominantly an admixture of Turks and Iranians, two of the important branches of the Aryans.

The history of the Baluchs reflect their valour, love for freedom and fear of God. Their rich poetry is replete with all this spirit. The sensibilities it exhibit, are of a fine nature and of peculiar intensity. The strong imprint of Islam is equally evident. Their hospitality is famous the world over.

The Pathans of the North West Frontier are born fighters. They are industrious and hard-working. They have a literary bent of mind and have produced poets and writers like Rehman Baba and Khushal Khan Khattak.

The Punjabi is mainly a farmer - soldier, though he is efficient and hard-working in other occupations too. Usually tall, well-built, active, forward looking, disciplined and industrious, he makes a very fine soldier. They have produced the national poet, thinker and a great philosopher, Allama Dr. Mohammad Iqbal, who put forward the idea of Pakistan, and a host of prominent poets and writers. The Punjab culture is rich with folk songs and dances -Luddi and Bhangra. Most of the migrants from the Urdu - speaking areas of India have settled down in the Punjab.

The majority of the population of Pakistan is composed of the Muslims. They lead Islamic way of life. They believe in one God, one Prophet and

one Holy Book - the Glorious Quran. This, combined with the memories of emancipation from the British and Hindu domination, has created a deep sence of oneness among them.

There are followers of other religions as well. A negligible minority of Hindus is settled mainly in the border districts of Sind and are mostly big landlords. Christians are widely spread and form about 3 percent of the total population. An economically notable minority, particularly settled in Karachi, is that of the parris numbering about 25,000. There is no bar against any of the minority community and they enjoy equal rights as citizens of Pakistan. Every post, except that of the Head of the State and the Prime Minister, is open to them. The Constitution of Pakistan guarantees the right to profess, practise and propagate their religions.

In Pakistan, a number of languages, all belonging to the Aryan age (with the exception of Brahui which is spoken by a small number or people in the Kalat region) are spoken in different sub-regions. These languages lean heavily on Persian and Arabic. Baluchi, due to the area's geographical affinity to Iran, is more akin to Persian than any other language.

Baluchi is spoken in most parts of Baluchistan, Pashto in the North West Frontier and in some parts of Baluchistan too, Punjabi in the Punjab and Sindhi in the Province of Sind. Urdu is understood and spoken by a great majority of the people of Pakistan.

Urdu is in fact the mother-tongue of only a small minority mainly migrants from the Urdu-speaking areas of India during 1947 and thereafter. It is, however, the national language of Pakistan and is the common linguistic link between the people of various provinces.

English plays an important role among the educated people. It is widely used for commercial, legal and other official transactions. Higher education, particularly in scientific and technical fields, is in English language.

Although the results of the 1981 census has not been made available, according to the 1972 census the literacy ratio for 10 years and above population was 21.7 percent. The highest literacy ratio of 32.2 percent was in the group of 15 to 19 years. The female population lagged behind the male population in education as only 11.6 percent of 10 years and above female population was literate as compared to 30.2 percent of the male population. (See Table II-5, Appendix)

The literacy ratio differed widely between the urban and the rural areas. The urban areas had a ration of 41.5 percent, whereas it was only 14.3 percent in the rural areas. The ratio was as low as 4.5 percent for the female population of the rural areas as against 30.9 percent for the urban areas. According to the statistics published by the UNESCO, the literacy percentage in Pakistan is 20.7.

Climatically Pakistan, located in the north of the Tropic of Cancer, possesses a great range of diversity, from some of the hottest in the world in the Jacobabad and Sibi Districts to the snowy cold of Ladakh and Baluchistan. Along the coastal belt, the climate is modified by sea breezes. Pakistan is on the margin of monsoon climate. The rainfall is barely sufficient and thus it possesses a dry climate. Due to the diversity of the climate a large variety of crops is cultivated balancing the agricultural economy of the country.

In the plains, minimum temperature in the month of January varies from 4°C to 15°C and in June/July from 25°C to 30°C. The maximum temperature in January varies from 17°C to 24°C and in June/July from 32°C to 35°C. Jacobabad has even recorded an absolute maximum of 52°C. (See Table III.2-3 to Table III.2-5 and Table III.2-11 to III.2-13, Appendix)

Pakistan suffers from a great deficiency of rainfall. In the plains it varies from 5 inches (125 mm) in upper Sind to 50 inches (1,250 mm) in the Himalayan Sub-mountains area, while in lee of these mountains, in the Gilgit Agency and Baluchistan, it is hardly 6 inches (150 mm). It usually takes place during July to September due ot its monsoonic origin.

In the hot weather, occationally light rains follow the dust storms. The mean annual rainfall is 31.3 inches (795 mm) at Sialkot, 18.9 inches (480 mm) at Lahore, 6.9 inches (175 mm) each at Multan and Hyderabad, and 3.5 inches (90 mm) at Jacobabad. Baluchistan is the driest part with an average of 6.9 inches (175 mm) which goes down to a mere 2 inches (50 mm) in Noakundi. Owing to high summer temperatures and the resultant high rate of evaporation and traspiration, the effectiveness of the rainfall is low except in the northern strip of mountainous and adjacent land. Irrigation is, therefore, a necessity for the agricultural crops and the snowfall on the mountains feeds the rivers and the Karezes (Water tanks).

The low rainfall, practically cloudless skies and high temperatures considerably reduce the humidity of the region. The coastal strip around Karachi, however, has a high humidity but it is confined to a narrow strip.

The year 1980 - 81 was the third year of the country's Fifth Five-Year Plan and witnessed significant gains in the commodity producing sectors, impressive rise in export earnings and notable expansion in the domestic resource share for financing the public sector investment programme despite the rising expenditure for the welfare of the Afghan refugee now numbering over 2.3 million and on defence. There had been an unexpected rise in the import bill of oil and its products owing to the international inflationary conditions that adversely affected the balance of trade.

During the period 1970 - 77 the average annual rate of growth was 3.7 percent in GNP and 4.2 percent in GDP allowing only a marginal improvement in the per capita income. However, the GDP recorded a growth rate of 7 percent in 1977 - 78, 5.9 percent in 1978 - 79, 7.0 percent in 1979 - 80 and 5.7 percent in 1980 - 81 giving an average of 6.2 percent for the four years. While the annual plan GDP growth target of 6.6 percent could not be achieved during 1980 - 81, the GDP has risen for the fourth consecutive year at a satisfactory rate. In parallel, the GNP recorded an increase of 5.5 percent during 1980 - 81 as against 6.7 percent in the preceding year and has averaged an annual growth rate of 7 percent during

1977 - 81. Given the 3 percent population growth, this indicates a 4 percent increase per annum in the per capita income as compared to the 1.2 percent increase in the preceding seven years. (See Table II-12, Appendix)

The two main commodity producing sectors of agriculture and manufacturing contributed Rs.25,328 million to the GNP in 1980 - 81 as compared to Rs.23,886 million in the previous year. Its share in the GNP has increased from 44.8 percent in 1979 - 80 to 45 percent in 1980 - 81. The contribution of the services sector to the GNP rose from Rs.26,271 million to Rs.27,692 million during 1980 - 81. Its share to the GNP has slightly declined from 29.3 percent in 1979 - 80 to 29.2 percent in 1980 - 81. (See Table II-12, Appendix)

Several factors contributed to the relatively comfortable balance of payments position. First, the country began with a substantially larger level of foreign exchange reserve than a year ago, so that the acute strains encountered in 1979 - 80 were absent. Second, both export earnings and home remittances increased beyond forecast levels. Third, an Extended Fund facility arrangement with the IMF brought access to substantial external capital and along with partial debt rescheduling, more than compensated for decline in regular aid inflows. As a consequence of these developments the current account deficit in the balance of payment is expected to remain at last year's level and the foreign exchange reserves are estimated to rise to 250 million dollars.

Despite an excellent export performance, a trade gap of about 2,818 million dollars is anticipated during 1980 - 81, which would be partly offset by home remittances and increased exports. The export receipts during the year are estiamted at 2,800 million dollars while the imports are projected at 5,628 million dollars over and above their original estimates of 2,550 million dollars and 5,091 million dollars respectively. The current account deficit is estimated at 1,199 million dollars showing a nominal increase of 50 million dollars or 4.3 percent over the level of 1,149 million dollars in 1979 - 80.

The price situation continued to remain under presuures. During the first nine months of 1980 - 81, the wholesale price index registered an increase of 10.5 percent as against 7 percent in the corresponding period last year. The consumer price index increased by 12 percent during the same period as against 8.8 percent in the corresponding period last year.

Both the internal and external factors are responsible for the inflationary trends. The internal factors include structural changes combined with supply rigidities and aspiration gap. The country's economy is highly vulnerable to fluctuations in the international markets. The ever-increasing prices of crude and petroleum products ahve continued to push up the prices of non-food items. The foreign trade, both exports and imports, constitutes 33.4 percent of the GDP. Any change in the prices of the tradable commodities has a direct effect on the domestic prices. However, with the decreasing dependence on imports, the influence of international inflation will also diminish.

According to the World Bank's Annual Report for 1981, Pakistan's economy grew by about 5 percent for the fourth year in a row, though the growth was at a somewhat slower pace than the previous year. The agricultural production increased by about 3 and 4 percent. The industrial output revived as per capacity and its use grew with the increased availability of imported inputs. The expansion in the economy was the result of good weather combined with continued growth in the exports, migrants' remittances and the Government policies that encouraged the private sector and provided economic stability.

In the agriculture, the production benefitted from the investments in quick-yielding projects, improvement in support services and higher crop prices. In the industry, the progress was recorded as the various incentives had begun to stimulate the private investment and exports, while a concerted attempt to introduce reforms, including greater flexibility of management and tougher standards of the fiancial performance, had reduced

the inefficiency in the public sector manufacturing. Advances were also noted in the country's energy capacity, through new exploration, investments in facilities and price adjustments that encouraged the use of domestic fuels.

The present regime realized that the short-term planning on annual basis was incapable to produce the desired results. It was, therefore, decided to revert to the medium-term planning and thus the Fifth Five-Year Plan (1978 - 83) was launched from July 1, 1978.

Basically a welfare-oriented, the Plan involves a development outlay of Rs.210.2 billion of which Rs.148.2 billion or 70.5 percent are earmarked for the public sector and Rs.62 billion or 29.5 percent to the private sector. A notable feature of the Plan is that as much as 75 percent of the total investment would be met through internal resources and national savings and only about 25 percent will be financed through external resources. The agriculture and water sectors have been given top priority and allocated a sum of Rs.43.1 billion or 20.51 percent of the total outlay; mining and industry Rs.42.5 billion or 20.22 percent; power and fuel Rs.33.5 billion or 15.94 percent; transport and communications Rs.38.6 billion or 18.36 percent; social and other sectors Rs.29.5 billion or 14.03 percent; and physical planning and housing Rs.23 billion or 10.94 percent of the total outlay.

The public sector development expenditure to be met from budgetary resources is estimated at Rs.128 billion, the balance of Rs.20.2 billion will be covered by the development expenditure of the public corporations. The annual development expenditure will increase from Rs.17.40 billion in 1977 - 78 to about Rs.31.50 billion in 1982 - 83 showing an annual growth rate of 12.6 percent. However, on the whole the public sector outlays are projected to rise at a rate of 11.4 percent.

The basic objectives of the plan are the development of the rural areas including extension of social services like schooling, health and drinking water facilities; easing of urban problems like water supply,

drainage, housing and transport, development of backward regions; meeting the basic needs of the population and the promotion of equity between urban and rural population; and laying down of the foundations of a long-term economic growth.

The focus of the Plan covering a wide variety of programmes would be the rapid development of agriculture based on efficient utilization of the potential of the nation in terms of land, manpower, and water resources as well as expanded and more intensive use of modern inputs and creation of permanent institutions in this vital sector of the national economy. The target of 6 percent growth rate in agriculture is essential for meeting the basic needs, stabilizing prices and improving the balance of payments position.

The supreme importance of agriculture in the economy of Pakistan has by no means diminished despite the rapid pace of industrialization in the large urban areas. Its share in the GNP slightly declined from 29.6 percent in 1979 - 80 to 29.4 percent in 1980 - 81, it is still the largest single sector of the economy. Pakistan is predominantly an agricultural country and about 75 percent of its population comprises agriculturists and farmers who toil in producing the maximum quantity of the foodgrains for the entire nation and raw materials to the domestic industry. Because of bumper wheat, sugarcane and maize crops, the growth rate of agricultural production during 1980 - 81 is expected at 4.4 percent. The wheat crop is estimated at 11.34 million tonnes, sugarcane crop has created a new record at 32.15 million tonnes and maize production is up by 2.9 percent as compared to 1979 - 80. The cotton production is expected at the last year's level. Only rice production recorded a decline of 4.4 percent to 3.075 million tonnes from 3.216 million tonnes in the previous year.

During 1980 - 81 the Government continued its policy of subsidizing the essential agricultural inputs and setting support prices for some of the major crops. The element of subsidy has, however, been reduced with a view to move towards its gradual withdrawal. This was supplimented

with the streamlining of the input distribution system to ensure timely availability of the essential inputs. The support prices of the important crops like wheat, rice (paddy), seed cotton (phutti) and sugarcane for 1980 - 81 were revised upward well before their sowing. An Agricultural Price Commission has been set up to advise the Federal Government on the pricing policies of the crops and the inputs and other relevant aspects of the agricultural development.

The work is progressing on three on-going farm projects, which, on completion, will place agricultural growth on secure foundations in the coming years. The seed industry projects, being implemented in the Punjab and Sind, will ensure the supply of good quality seed throughout the country. The projects contain the important elements of development and distribution of the seed suited to the requirements of different regions. Similarly, the pilot extension projects are also to be undertaken in the two provinces. These proejcts will be much more closely structured and supervised than the present services. These pilot projects and other extension projects will be replicated throughout the country after testing and readjustment in the light of the experience thus gained.

Likewise, the water management projects have been started on pilot scale in the irrigated zones to put down water losses in transmission, which are estimated to be 45 to 60 percent. The pilot on-farm meangement projects have already resulted in the improvement of nearly 500 water courses and benefitted an area of about 85,000 acres. Meanwhile, the Punjab Government has started a crash programme to improve another 10,000 water courses. This would save nearly one million acre feet of water.

The Federal Government decided to enhance the limit of interest-free production loans from Rs.5,000 to Rs.6,000 per borrower per year subject to a limit of Rs.500 per acre. The salient features of this scheme with the latest amendments are; (a) interest-free loans are admissible only to the small farmers of subsistence holding; (b) the loans are only for the purchase of seeds, fertilizers and pesticides; (c) the genuine additional credit needs of the small farmers can also be met as per norms and proce-

dure laid down but interest as prescribed will be charged on the amount in excess of Rs.6,000; and (d) the farmers will be given two months' period after the harvest to repay the loan and get the exemption of the interest. However, if they fail to repay within the prescribed period, their loans will become interest-bearing with retrospective effect.

The weather conditions were generally fabourable during the Kharif season. The rains were lower at the time of sowing of Irri-rice which affected the area under this crop. However, the rains picked up in July and August, 1980 which suited basmati, maize and sugarcane crops. Cotton was not affected. The water level in the rivers and canal flow remained normal. The weather conditions during Rabi seaosn were quite favourable. The rains in January and February 1981 brightened the prospects of another bumper wheat crop, the third consecutive record crop in succession.

With a view to gain self-sufficiency in the foodgrains and eliminate dependence on imports, the wheat production was given top priority. The wheat production strategy was based primarily on the use of better agricultural practices, improved technology, encouragement to the use of mechanized threshers and mechanical harvesters, fiscal and monetary incentives and liberal provision of credit facilities. It is estimated that the actual area underwheat cultivation was 6.921 million hectares, 3.06 percent more than the target and 0.13 percent more than the previous yaer. The area was 6.6 percent higher than the average of the last five years, 1975 - 1976 to 1979 - 80.

There has been a sharp rise in the wheat production. In 1978 - 79 it recorded a significant increase of 18.9 percent to 9.95 million tonnes and further increased by 8.6 percent to 10.80 million tonnes in 1979 - 80. It is expected to be 5 percent higher to 11.34 million tonnes in 1980 - 81. As compared to the last five years the production has jumped up by 20.8 percent in 1980 - 81. Similarly, the yield per hectare has also increased from 1,488 kgs in 1978 - 79 to 1,563 kgs in 1979 - 80 and 1,638 kgs in 1980 - 81 showing an increase of 13.2 percent compared with the average of the last five years.

Rice is not only the second largest staple food crop but it also serves as a mojor source of foreign exchange earnings. The support prices of basmati (paddy) and Irri-6 (paddy) fixed for 1979 - 80 crop were also maintained for the 1980 - 81 crop. However, the price of basmati rice was raised from Rs.110 to Rs.127.84; Irri-6, 15 percent broken, from Rs.56 to Rs.67.88; and Irri-6, 40 percent broken, from Rs.49 to Rs.77 per 37.324 kgs.

The rice crop, which recorded a gradual increase both in its area and production upto 1978 - 79, suffered in 1979 - 80 and again in 1980 - 81 because of unfavourable weather conditions and low precipitation at the sowing time. In 1980 - 81 the area under rice cultivation was 1.921 million hectares. The decline was due to substantial fall in Irri-6 sowing in the Punjab because of insufficient water availability. Along with the area, the production also fell dwon. It touched a record level of 3.272 million tonnes in 1978 - 79 but declined by 1.71 percent to 3.216 million tonnes in 1979 - 80 and further went down by 4.38 percent to 3.075 million tonnes in 1980 - 81. However, when compared with the average production of the last five years (1975 - 76 to 1979 - 80) the production in 1980 - 81 was 3.9 percent higher. The yield per hectare also increased by 1.3 percent to 1,601 kgs as compared to 1979 - 80. The improvement in the yield per hectare in the case of basmati rice during the year has offset some of the shortages resulting from the sharp fall in Irri-rice yield.

The Government fixed the export target at 1.225 million tonnes for 1980 - 81. The average export price of basmati rice in the international market was 1.21 percent lower but the price of other varieties was 27.59 percent higher than the last year.

According to the All Pakistan Ginners Association, the production of cotton during 1980 - 81 season declined to 2.950 million bales as against 4.203 million bales last year. The shortfall was higher in Sind as only 1.349 million bales were produced in the province upto March 31, 1981 as against 1.512 million bales last year, mainly because of a steep fall in ginning out-turn. However, the quality of the cotton had been exemplary

and the ginning standard had also shown a considerable improvement. But the Pakistan Central Cotton Committee has placed the production figures at 4.2 million bales, 2.8 million bales in the Punjab and 1.4 million bales in Sind with per hectare yield at 342 kgs which is expected to increase to 378 kgs per hectare in the next season.

The target for cotton production for the next season has been fixed at 4.6 million bales of which 3 million bales would be produced in the Punjab and 1.6 million bales in Sind. It would be cultivated on more than two million hectare, 1.5 million hectare in the Punjab and on 570,000 hectare in Sind.

It is estimated that during 1980 - 81 the mill consumption stood at 2.292 million bales of 178 kgs each as against 2.248 million bales in the previous year. The raw cotton exports are estimated at 1.8 million bales as compared to 1.4 million bales exported in 1979 - 80. The average annual export price of raw cotton was Rs.492 per 37,324 kgs in 1979 - 80 which increased to Rs596 per 37,324 kgs during July - March 1980 - 81.

The area and production of sugarcane in 1980 - 81 recorded a substantial increase. The area increased by 14.62 percent to 823,000 hectare while the production rose by 16.94 percent to 31.157 million tonnes as against 718,000 hectares and 27.498 million tonnes respectively in the preceding year. The per hectare yield showed a marginal improvement from 38.3 tonnes in 1979 - 80 to 39 tonnes in 1980 - 81.

The Government is taking positive measure to have a breakthrough in the production of edible oils to reduce dependence on imports which are rising very fast due to the increase in the domestic demand and static local production. During 1980 - 81 about 443,000 tonnes were imported for use in the production of vegetable ghee.

Presently, the cotton seed is the only source of vegetable ghee production in the country and its local production in 1980 - 81 stood at 115,000 tonnes. The rape and mustard seeds are not utilized for the

purpose. Among the newly introduced oilseed crops sunflower has been found most suitable. The experiments carried out show that in the south Sind the autumn crop of sunflower can be followed by wheat in the same land, while in the north Sind it can precede the cotton crop in the spring.

Soyabean had proved to be an excellent rotation crop with high content of good quality proteins in addition to contributing edible oil.

The food situation in the country remained satisfactory during the year. In view of the bumper wheat crop of 1980, the government was able to procure 2.955 million tonnes of wheat against the target of 2.755 million tonnes and 2.376 million tonnes procured last year. As a result of the consecutive bumper wheat crops of 1978 - 79, 1979 - 80 and 1980 - 81, the wheat imports have been drasically slashed. During the period May 1980 to April 1981, only 20,000 tonnes of wheat was imported.

The procurement price of wheat was raised by Rs.7.47 from Rs.46.65 to Rs.54.12 per 37,324 kgs for the 1980 - 81 crop. However, with effect from July 1, 1981, the sale price of atta was raised to Rs.66.50 per 40 kgs. Likewise, the sale price of sugar has also heen raised from Rs.6 to Rs.7 per kg for the domestic consumers and from Rs.9 to Rs.10 per kg for the commercial users.

With the largest single basin canal irrigation network in the world, Pakistan mainly depends on the availability of the ground as well as the surface water for its agriculture. But it is not being efficiently utilized with the result that a large portion of the water is being wasted. The Government is, therefore, making concerted efforts to improve the situation by constructing dams and water reservoirs, improving water courses and encouraging land levelling.

It is estimated that during 1980 - 81 about 8,820 tubewells were installed as against 8,783 in the previous year raising the number of tubewells in the public sector to 106,977 by June 30, 1981. An amount of Rs.48 million has been provided as tubewell subsidy during 1980 - 81 as

against Rs.22 million in the previous year. The rates of subsidy announced in 1978 - 79 were maintained. The rates are: Rs.24,000 for barani areas; Rs.20,000 for riverain areas; and Rs.16,000 for the canal commanded areas. Besides, an on-farm water management scheme has been expanded from July 1981 to minimise water losses in the water courses. As against the target of 410, water courses numbering 358 were improved in all the four provinces during July 1980 to March 1981. Besides, 600 water courses in the NWFP and 12,000 in the Punjab were rehabilitated during 1980 - 81.

The irrigation water availability at farm gate increased by 7.7 percent to 94.14 million acre feet (MAF) in 1979 - 80 over the previous year. It is estimated at 96.43 MAF in 1980 - 81, of which 61.64 MAF was available from the surface water sources and 34.79 MAF from the ground water sources. The estimated release of storage water from Tarbela is 8.41 MAF as against 7.18 MAF 1979 - 80.

The twin meances of water logging and salinity are posing a great threat to the agrarian economy in the Indus basin. Thousands of hectares of land go out of cultivation every year. The Governemnt is, therefore, combating this dual menace by launching a huge accelerated programme, under the supervision of the WAPDA. The programme mainly comprised the installation of tubewells and construction of the suface drains. So far 13,360 tubewells have been installed and 7,423 kms of drains constructed in SCARPS areas with 6.48 million hectares of land. Besides SCARPS tubewells, over 173,900 tubewells have also been installed in the private sector. These tubewells have checked the water logging to some extent.

Under the accelerated programme an area of 0.244 million hectares was protected from water logging and salinity during 1979 - 80 and it is estimated that another 0.033 million hectares would be protected during 1980 - 81. It is estimated that 740 kms of surface drains were constructed during 1980 - 81 as against 927 kms in the previous year.

The basic concept of this chapter has been worked out based mainly on the data and information carried in the following two sources and

some quotation are made therefrom as well.

Sources: Pakistan Year Book 1981-82, 11th Edition
(East and West Publication Company)

Development Plan and Strategy for Development of Baluchistan
(Plan and Development Department, Government of Baluchistan)

Table II-1 Population Area and Density by Province & Sex

Province/Area	Population (in thousands) Both Sexes	Male	Fermale	Area (square killometers)	Density per sq.km
Pakistan	83,782	43,917	39,865	796,095	105
Urban	23,739	12,967	11,042		
Rural	60,043	31,220	28,823		
N.W.F.P.	10,885	5,654	5,231	74,521	146
Urban	1,652	891	761		
Rural	9,233	4,763	4,470		
Federally Administrated Tribal Areas (a)	2,175	1,129	1,046	27,219	80
Urban (b)	12	6	6		
Rural	2,163	1,123	1,040		
Federal Capital Territory Islamabad (a)	335	182	153	907	369
Urban (c)	202	110	92		
Rural	133	72	61		
Punjab	47,116	24,738	22,378	205,344	229
Urban	12,998	6,919	6,079		
Rural	34,118	17,819	16,299		
Sind	18,996	9,941	9,025	140,914	134
Urban	8,205	4,404	3,801		
Rural	10,761	5,537	5,224		
Baluchistan	4,305	2,273	2,032	347,190	12
Urban	670	367	303		
Rural	3,635	1,906	1,729		

Source: Population Census Organization Statistical Pocket Book of Pakistan 1982.

Note: a) The sex wise distribution of population is done on the basis of sex ratios given by Population Census 1981.

b) Urban/rural distribution is calculated on the basis of urban percentage of 1972 census which is 5.3 %.

c) Urban/rural distribution is calculated on the basis of percentage given in Population Census 1981.

Table II-2 Population Change by Province & Sex

Locality	Population 1972 (in thousands)	Population 1981 (in thousands)	Percentage Increase/ Decrease (Provisionai)
Pakistan			
Both Sexes	65,309	83,782	28.28
Male	34,833	43,917	26.08
Female	30,476	39,865	30.81
N.W.F.P.			
Both Sexes	8,388	10,885	29.77
Male	4,363	5,654	29.59
Female	4,025	5,231	29.96
Federally Administrated Tribal Areas (a)			
Both Sexes	2,491	2,175	(-) 12.68
Male	1,266	1,129	(-) 10.82
Female	1,225	1,046	(-) 14.61
Punjab (b)			
Both Sexes	37,845	47,451	25.38
Male	20,340	24,920	22.52
Female	17,505	22,531	28.71
Sind			
Both Sexes	14,156	18,966	33.98
Male	7,574	9,941	31.25
Female	6,582	9,025	37.12
Balchistan			
Both Sexes	2,429	4,305	77.23
Male	1,290	2,273	76.20
Female	1,139	2,032	78.40

Source: Population Census Organization.

Note: (a) Sexwise distribution is calculated on basis of sex ratio given in Population Census 1981, Bulletin-I.

(b) Figures include the Population of Federal Capital Territory of Islamabad.

Table II-3 Population by Sex Age and Urban/Rural Areas in 1972

(in thousands)

Age Group	Total			Urban			Rural		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
All Ages	62,461	33,393	29,068	16,580	9,019	7,561	45,881	24,374	21,507
Bellow one Year	1,612	886	726	387	210	177	1,225	676	549
1- 4 Years	7,803	3,840	3,963	2,009	1,013	996	5,794	2,827	2,967
5- 9 Years	10,132	5,317	4,815	2,533	1,319	1,214	7,599	3,998	3,601
10-14 Years	7,835	4,384	3,451	2,155	1,171	984	5,680	3,213	2,467
15-19 Years	5,333	2,910	2,423	1,602	861	741	3,731	2,049	1,682
20-24 Years	4,563	2,351	2,212	1,395	747	648	3,168	1,604	1,564
25-29 Years	4,646	2,450	2,196	1,316	722	594	3,330	1,728	1,602
30-34 Years	3,960	2,056	1,904	1,087	594	493	2,873	1,462	1,411
35-39 Years	3,330	1,791	1,539	924	519	405	2,406	1,272	1,134
40-44 Years	3,063	1,646	1,417	826	479	347	2,237	1,167	1,070
45-49 Years	2,327	1,283	1,044	603	359	244	1,724	924	800
50-54 Years	2,313	1,319	994	573	344	229	1,740	975	765
55-59 Years	1,183	641	542	274	158	116	909	483	426
60-64 Years	1,771	1,041	730	393	233	160	1,378	808	570
65-69 Years	714	402	312	147	86	61	567	316	251
70-74 Years	904	524	380	181	106	75	723	418	305
75 Years and Above	972	552	420	175	98	77	797	454	343

Source: Population Census Organization.

Note: This table excludes the population of Federally administered Tribal Areas, Kohistan Area of Hazara District and provincially Administered Tribal Area adjonining Hazara District where special Census schedules were used, which did not permit tabulation as given in this table.

Table II-4 Growth of Cities/Towns from 1931 to 1981
(of 100,000 and Above)

(in thousands)

City/Town	1931	1941	1951	1961	1972	1981 (provisional)
Karachi	301	436	1,068	1,913	3,515	5,103
Lahore	430	672	849	1,296	2,170	2,922
Faisalabad	43	70	179	425	823	1,092
Rawalpindi	119	185	237	340	615	806
Hyderabad	102	135	242	434	629	795
Multan	119	143	190	358	539	730
Gujranwala	59	84	121	196	360	597
Peshawar	122	173	151	219	273	555
Sialkot	101	139	167	164	204	296
Sargodha	27	36	78	129	200	294
Quetta	60	65	84	107	158	285
Islamabad	-	-	-	-	77	201
Jhang	36	50	73	95	132	195
Sukkur	65	66	77	103	159	193
Bahawalpur	21	40	42	84	134	178
Kasur	47	53	63	74	101	155
Okara	11	8	35	68	101	154
Gujrat	26	31	47	60	100	154
Sahiwal	26	38	50	75	107	152
Mardan	26	42	49	78	115	148
Sheikhupura	12	22	30	42	81	141
Mirpur Khas	10	20	40	61	82	124
Larkana	25	28	33	48	72	123
Wah Cantt.	-	-	33	37	107	122
Rahim Yar Khan	-	6	15	44	74	119
Chiniot	26	34	39	47	70	106
Jhelum	23	33	39	53	70	106
D.G.Khan	23	32	36	47	72	103
Nawabshah	7	17	34	46	81	102

Source: Population Census Organization.

Table II-5 Literacy Ratio by Sex Age and Urban/Rural Areas in 1972

Age Group	Sex	All Areas	Urban Areas	Rural Areas
10 years and Above	Total	21.7	41.5	14.3
	Male	30.2	49.9	22.6
	Female	11.6	30.9	4.7
10-14 Years	Total	24.8	44.9	17.1
	Male	31.4	49.3	24.8
	Female	16.4	39.6	7.1
15-19 Years	Total	32.2	54.6	22.5
	Male	42.0	61.5	33.9
	Female	20.3	46.6	8.7
20-24 Years	Total	28.4	50.1	18.8
	Male	40.3	60.1	31.1
	Female	15.7	38.6	6.2
25-34 Years	Total	22.7	42.2	15.1
	Male	33.6	53.3	25.4
	Female	10.7	28.8	4.2
35-44 Years	Total	18.0	36.3	11.1
	Male	26.7	46.6	18.5
	Female	7.9	22.5	2.9
45-54 Years	Total	14.7	31.7	9.0
	Male	21.9	41.7	14.5
	Female	5.6	16.8	2.2
55 Years and Above	Total	10.5	23.4	7.1
	Male	15.8	32.4	11.3
	Female	3.5	10.9	1.5

Source: Population Census Organization.

Table II.6-1 Areas Production and Yield per Hectare of Principal Crops

Crops	1978 - 79 Area (000 Hectares)	1978 - 79 Production (000 Tonnes)	1978 - 79 Per-Hectare Yield in Kilogram	1979 - 80 Area (000 Hectares)	1979 - 80 Production (000 Tonnes)	1979 - 80 Per Hectare Yield in Kilogram	1980 - 81 Area (000 Hectares)	1980 - 81 Production (000 Tonnes)	1980 - 81 Per Hectare Yield in Kilogram
	PAKISTAN			PAKISTAN			PAKISTAN		
1. Rice	2,025.6	3,272.0*	1,615.3	2,034.5	3,215.8	1,580.6	1,935.3 F/	3,119.5	1,611.9
2. Wheat	6,687.1	9,950.0	1,487.9	6,911.6	10,805.3(r)	1,563.4	6,919.9 II/	11,302.8	1,633.4
3. Barley	177.7	129.3	727.6	159.3	118.1	741.4	166.8 I/	-	-
4. Jowar	469.2	252.4	537.9	423.4	249.1	588.3	399.2 F/	233.5	584.9
5. Bajra	658.6	317.4	481.9	561.3	277.3	494.0	405.9 F/(r)	214.9(r)	527.2
6. Maize	650.2	798.6	1,228.2	701.1	875.2	1,248.3	743.9 F/(r)	945.9(r)	1,271.5
7. Gram	1,224.4	537.8	439.2	1,128.5	313.4	277.7	961.4 II/	387.0	402.5
8. Sugarcane	752.5	27,325.5	36,313.0	718.5	27,497.7	38,271.0	824.7 F/	32,359.4	39,237.8
9. Rapeseed & Mustard	433.0	248.2	573.2	409.4	247.1	603.6	435.6 I/	-	-
10. Sesamum	45.9	18.7	407.4	46.1	19.3	418.7	44.2 F/	18.3	414.0
11. Cotton	1,891.2	473.2	250.2	2,081.0	728.1	349.9	2,108.5 F/	714.4	338.8
12. Tobacco	47.6	68.1	1,430.7	49.9	77.8	1,559.1	42.9 F/	67.2	1,566.4
	PUNJAB			PUNJAB			PUNJAB		
1. Rice	1,181.7	1,765.9	1,494.6	1,179.6	1,518.4	1,287.2	1,061.9 F/	1,361.7	1,282.3
2. Wheat	4,806.0	7,323.6	1,523.8	4,951.6	7,914.0	1,598.3	4,959.3 II/	8,299.9	1,673.6
3. Barley	89.8	65.1	724.9	78.1	59.8	765.7	92.3 I/	-	-
4. Jowar	220.4	117.7	534.0	209.7	116.4	555.1	216.0 F/	119.0	550.9
5. Bajra	358.8	188.1	524.2	327.9	175.1	534.0	329.0 F/	174.8	531.3
6. Maize	303.5	384.5	1,266.9	325.9	420.6	1,290.6	347.1 F/	444.7	1,281.2
7. Gram	234.4	398.8	426.8	870.5	213.1	244.8	751.9 II/	265.3	352.8
8. Sugarcane	536.6	19,343.9	36,049.0	501.4	19,413.5	38,718.6	597.5 F/	23,733.0	39,720.5
9. Rapeseed & Mustard	235.6	139.1	590.4	237.1	152.1	641.5	245.2 I/	-	-
10. Sesamum	10.4	4.1	394.2	15.1	6.2	410.5	22.6 F/	9.1	402.7
11. Cotton	1,388.0	330.3	237.9	1,481.1	481.6	325.2	1,506.2 F/	474.3	315.0
12. Tobacco	19.7	26.3	1,335.0	17.0	23.7	1,394.1	16.0 F/	22.2	1,387.5

Table II-6-2 Areas Production and Yield per Hectare of Principal Crops

Crops	1978 - 79 Area (000 Hectares)	1978 - 79 Production (000 Tonnes)	1978 - 79 Per Hectare Yield in Kilogram	1979 - 80 Area (000 Hectares)	1979 - 80 Production (000 Tonnes)	1979 - 80 Per Hectare Yield in Kilogram	1980 - 81 Area (000 Hectare)	1980 - 81 Production (000 Tonnes)	1980 - 81 Per Hectare Yield in Kilogram
	SIND			SIND			SIND		
1. Rice	734.7	1,340.9	1,825.1	745.6	1,499.1	2,010.6	763.8 F/	1,549.9	2,029.2
2. Wheat	1,008.6	1,680.1	1,665.8	1,026.5	1,849.4	1,801.7	1,029.8 II/	1.949.4	1,893.0
3. Barley	20.6	10.8	524.3	18.8	9.7	516.0	11.2 I/	-	-
4. Jowar	123.8	81.3	656.7	127.8	83.0	649.5	102.2 F/	65.5	640.9
5. Bajra	273.8	118.0	431.3	209.9	92.2	439.3	62.2 F/	33.0	530.5
6. Maize	21.4	12.5	584.1	24.1	13.6	564.3	22.4 F/	12.3	549.1
7. Gram	164.2	114.8	699.1	142.0	99.2	698.6	127.1 II/	88.3	694.7
8. Sugarcane	120.8	4,373.8	36,207.0	129.9	4,664.4	35,907.6	136.0 F/	5,007.3 F/	36,818.4
9. Rapeseed & Mustard	114.9	70.0	609.2	106.3	65.2	613.4	104.4 I/	-	-
10. Sesamum	16.9	6.1	360.9	17.4	6.5	373.6	8.2 F/	2.7	329.3
11. Cotton	500.8	142.5	284.5	597.5	246.1	411.9	599.0 F/	239.15	399.3
12. Tobacco	0.4	0.6	1,500.0	0.4	0.5	1,250.0	0.4 F/	0.5 F/	1,250.0
	N.W.F.P.			N.W.F.P.			N.W.F.P.		
1. Rice	67.9	104.0	1,531.7	67.2	104.7	1,538.0	66.2 F/	105.1	1,587.6
2. Wheat	704.7	737.5	1,046.5	745.4	810.8(r)	1,087.7	747.4 II/	814.6	1,089.9
3. Barley	61.3	49.7	810.8	54.7	43.6	797.1	55.5 I/	-	-
4. Jowar	38.4	18.1	471.4	30.6	15.2	496.7	20.9 F/	11.5	550.2
5. Bajra	25.1	10.9	434.3	23.3	9.9	424.9	14.6 F/	6.1	417.8
6. Maize	321.5	398.9	1,240.7	347.8	438.3	1,260.5	371.2 F/	486.4	1,310.3
7. Gram	124.7	23.4	187.7	114.9	0.3	2.6	72.4 II/	25.9	357.7
8. Sugarcane	95.0	3,606.1	37,958.9	87.1	3,417.0	39,230.8	90.5 F/	3,598.0	39,756.9
9. Rapeseed & Mustard	50.7	26.9	530.6	42.6	20.5	481.2	49.0 I/	-	-
10. Sesamum	3.3	0.9	272.7	0.9	0.2	222.2	11 F/	0.3	272.7
11. Cotton	2.3	0.4	173.9	2.2	0.4	181.8	2.3 F/	0.48	208.7
12. Tobacco	26.2	38.7	1,477.1	31.0	50.6	1,632.3	25.0 F/	41.4	1,656.0

Table II.6-3 Areas Production and Yield per Hectare of Principal Crops

Crops	1978 - 79			1979 - 80			1980 - 81		
	Area (000 Hectares)	Production (000 Tonnes)	Per Hectare Yield in Kilogram	Area (000 Hectares)	Production (000 Tonnes)	Per Hectare Yield in Kilogram	Area (000 Hectares	Production (000 Tonnes)	Per Hectare Yield in Kilogram
	BALUCHISTAN			BALUCHISTAN			BALUCHISTAN		
1. Rice	41.3	61.2	1,481.8	42.1	93.6	2,223.3	43.4 II/	102.8	2,368.7
2. Wheat	167.8	208.8	1,244.3	188.1	231.1(r)	1,228.6	183.4 II/	238.9	1,302.6
3. Barley	6.0	3.7	616.7	7.7	5.0	649.4	7.8 I/	-	-
4. jowar	86.6	35.3	407.6	55.3	34.5	623.9	60.1 I/	37.5 @	624.0
5. Bajra	1.1	0.4	363.6	0.2	0.1	500.0	0.1 F/	0.1 F/	1,000.0
6. Maize	3.8	2.7	710.5	3.3	2.6	787.9	3.2 F/	2.5 F/	781.3
7. Gram	1.1	0.8	727.3	1.1	0.8	727.3	10.0 II/	7.5	750.0
8. Sugarcane	0.1	1.7	17,000.0	0.1	2.8	28,000.0	0.7 F/	21.1 F/	30,142.8
9. Rapeseed & Mustard	31.8	12.2	383.6	23.4	9.3	397.4	37.0 I/	-	-
10. Sesamum	15.3	7.6	496.7	12.7	6.4	503.9	12.2 I/	6.1 @	500.0
11. Cotton	0.1	0.04	400.0	0.2	0.09	450.0	1.0 F/	0.34	340.0
12. Tobacco	1.3	2.5	1,923.1	1.5	3.0	2,000.0	1.5 F/	3.0	2,000.0

Note : I/; First Estimates.

II/; Second Estimates.

F/; Final Estimates.

@ ; Estimated (1st estimate of 1980 and yield per hectare 1979 - 80) on the basis of average yield/hectare of 1979 - 80.

Table II-7 Indices of Agricultural Production by Principal Crops (1969 - 70 = 100)

Crops	1978 - 79*	1979 - 80*	1980 - 81
General	119	127	132
Rice	136	134	128
Wheat	136	147	155
Barley	126	115	120
Jowar	89	88	82
Bajra	105	91	71
Maize	120	131	135
Gram	106	62	76
Sugarcane	104	104	123
Rapeseed & Mustard	97	98	100
Sesamum	226	212	212
Cotton	88	136	138
Tobacco	58	67	67

Table II-8 Quantum Indices of Exports & Imports
(1969-70 = 100)

Groups	1978-79	1979-80	1980-81
Exports			
1. Food & Live Animals	348.81	386.35	433.93
2. Beverages & Tobacco	429.10	594.96	91.19
3. Crude Materials	129.05	251.12	299.08
4. Mineral, Fuels & Lubicants	101.22	147.65	144.98
5. Chemicals	115.27	101.36	127.63
6. Manufactured Goods	225.06	218.25	253.09
7. Machinery & Transport Equipment	205.92	21.19	10.15
8. Miscellaneous Manufactured Goods	347.97	412.43	430.46
9. General Indicies	229.64	251.89	295.44
Imports			
1. Food & Live Animals	1,110.86	1,041.95	934.48
2. Beverages and Tobacco	22.49	28.43	58,10
3. Crude Materials	278.07	309.66	708.75
4. Mineral, Fuels & Lubricants	269.56	305.39	342.27
5. Animal & Vegetable Oil	482.96	525.67	709.37
6. Chemicals	319.94	231.74	272.25
7. Manufactured Goods	306.28	428.05	605.52
8. Machinery & Transport Equipment	338.50	428.27	497.57
9. Miscellaneous Manufactured Goods	349.31	265.57	276.45
10. General Lidicies	358.08	384.50	483.91

Table II.9 Annual Development Programme by Executing Agencies

Executing Agency	Allocation for 1979 - 80	Allocation for 1978 - 79	Percentage Increase/ Decrease
1. Federal Programme			
(a) Federal Government	7,882.555	6,897.120	14.3
(b) WAPDA:	3,893.128	4,231.000	(-)8.0
i) Water	1,105.979	(1,316.000)	(-)16.0
ii) Power	2,787.149	(2,915.000)	(-)4.4
(c) Pakistan Railways	833.000	1,000.000	(-)16.7
(d) Industrial and Mineral Development Corporations	3,890.799	4,127.030	(-)5.7
i) Karachi Steel Mills Corporation	2,700.000	(3,000.000)	(-)10.0
ii) PIDC	(153.805)	(116.500)	32.0
iii) National Fertilizer Corporation	(323.002)	(421.000)	(-)23.3
iv) Federal Chemical and Ceramics Corporation	(56.727)	(47.000)	20.7
v) State Heavy Engineering Corporation	(21.824)	(20.000)	9.1
vi) State Petroleum Refinery and Petrochemical Corporation	(13.093)	(27.000)	(-)51.5
vii) State Cement Corporation	(464.171)	(415.200)	11.8
viii) Textile Machinery Corporation of Pakistan	(10.476)	(16.500)	(-)36.5
ix) Rasources Development Corporation	24.252	11.000	120.5
x) Pakistan Mineral Development Corporation	22.642	26.680	(-)15.1

(Cont'd)

Source : Planning Commission

Table II-9 Annual Development Programme by Executing Agencies

(Cont'd)

Executing Agency	Allocation for 1979 - 80	Allocation for 1978 - 79	Percentage Increase/ Decrease
xi) Other Industrial Development Corporation	100.807	26.150	285.5
(e) Indus Basin/Tarbela	894.395	1,173.400	(-)23.8
(f) Earthquake Relief and Reconstruction Programme	55.075	60.000	(-)8.2
(g) Sprots Complex	83.721	75.000	11.6
Total Federal Government (Gross)	17,532.373	17,563.550	(-)0.2
Less Shortfall	-	2,663.550	-
Total Federal Government (Net)	17,532.373	14,900.000	17.7
2. Provincial Governments			
i) Punjab	2,196.000	2,324.012	(-)5.5
ii) Sind	820.000	833.700	(-)1.6
iii) N.W.F.P.	690.000	790.000	(-)12.7
iv) Baluchistan	358.812	377.257	(-)4.9
Total Provincial Programme (Gross)	4,064.812	4,324.969	(-)6.0
Less Shortfall	-	224.969	-
Total Provincial Programme (Net)	4.064.812	4,100.000	(-)0.9
Total(Federal and Provincial Net)	21.597.185	19,000.000	13.7

Source : Planning Commission

Table II-10 Annual Development Programme 1978 - 79 by Federal & Provincial Governments

Sector	Budget Provision					
	Federal	Punjab	Sind	N.W.F.P.	Baluchistan	Total
A. Sectoral Programmes						
Agriculture	1,284.866	473.000	125.253	104.200	68.819	2,054.538
Water	2,563.131	228.200	89.800	60.060	53.646	2,994.837
Power	3,478.084	-	-	-	-	3,478.084
Fuels	595.303	-	-	-	-	595.303
Industry	4,489.880	64.200	38.050	22.813	7.174	4,622.117
Minerals	55.277	16,700	-	10.500	8.500	90.977
Transport & Communication	3,322.638	251.000	191.500	123.193	54.750	3,943.081
Physical Planning & Housing	575.620	689.602	182.600	147.145	66.960	1,661.927
Mass Media	137.570	0.610	-	-	-	138.180
Educational & Training	396.633	189.100	99.477	149.767	43,237	878.214
Health	321.908	213.700	76.770	121.200	27.719	761.297
Population Planning	210.000	-	-	-	-	210.000
Social Welfare	5.840	15.000	1.350	3.109	1.702	27.082
Manpower	24.700	17.500	1.200	7.932	4.650	55.982
Rural Development	42.100	140.000	27.700	40.000	32.100	281.900
Crash Programme/Block Allocation	-	25.000	-	-	10.000	35.000
Total (Sectoral)	17,503.550	2,324.012	833.700	790.000	377.257	21,828.519
B. Earthquake Relief and Recommnedation Programme	60.000	-	-	-	-	60.000
Total (Gross)	17,563.550	2,324.012	833.700	790.000	377.257	21,888.519
Less Operational Shortfall (-)	2,663.550	101.012	3.700	91.000	29.257	2,888/519
Total (Net)	14,900.000	2,223.000	830.000	699.000	348.000	19,000.000

Source : Planning Commission

Table II-11 Sectoral Priorities for annual Development Programme

Sector	ADP 1978 - 79 Allocation	%	ADP 1979 - 80 Allocation	%
A. Sectoral Programme				
Agriculture	2,054.5	9.4	3,297.2	15.3
Water	2,994.8	13.7	2,662.3	12.3
Power	3,478.1	15.9	3,238.9	15.0
Fuels	595.3	2.7	739.1	3.4
Industry	4,622.1	21.1	4,057.1	18.8
Minerals	91.0	0.4	96.0	0.4
Transport & Communications	3,943.1	18.0	3,821.9	17.7
Physical Planning & Housing	1,661.9	7.6	1,426.9	6.6
Mass Media	138.2	0.6	97.2	0.5
Education & Training	878.2	1.0	891.1	4.1
Health	761.3	3.5	717.0	3.3
Population Planning	210.0	1.0	169.0	0.8
Social Welfare	27.1	0.1	31.9	0.1
Manpower	56.0	0.3	59.4	0.3
Rural Development	281.9	1.3	202.7	0.9
Crash Programme	10.0	0.1	3.5	0.1
Bloock Allocation	25.0	0.1	31.1	0.1
Total (Sectoral Programme)	21,828.5	99.7	18,524.5	99.7
B. Earthquake Relief and Reconstruction Programme	60.0	0.3	55.1	0.3
Total (Gross)	2,888.5	100.0	-	-
Less Operationa Shortfall	(-)2,888.5		-	
Total (Net)	19,000.0		18.579.6	100.0

Source : Planning Commission

Table II-12 Gross National Project

(Million Rupees)

Sectors	At Current Factor Cost			At Constant Facor Cost of 1959-60		
	1978-79 (Revised)	1979-80 (Revised)	1980-81 (Provisional)	1978-79 (Revised)	1979-80 (Revised)	1980-81 (Provisional)
1. Agriculture	57,411	65,722	74,625	14,789	15,814	16,512
Major Crops	30,901	35,538	39,233	8,315	9,087	9,530
Minor Crops	8,421	9,098	10,534	2,023	2,103	2,177
Livestock	16,843	19,566	22,867	4,281	4,441	4,616
Fishing	801	1,034	1,444	110	121	127
Forestry	445	486	547	60	62	62
2. Mining & Quarrying	1,378	2,226	2,865	221	250	274
3. Manufacturing	28,133	34,796	42,006	7,145	7,822	8,542
Large-scale	19,640	24,498	29,791	4,988	5,507	6,058
Small-scale	8,493	10,298	12,215	2,157	2,315	2,484
4. Construction	9,336	11,762	13,755	2,371	2,644	2,797
5. Electricity & Gas Distribution Services	3,397	4,789	5,627	1,366	1.531	1,693
6. Transport, Storage & Communication	13,044	15,451	18,712	3,241	3,487	3,719
7. Wholesale & Retail Trade	26,033	30,782	37,127	6,469	6,947	7,380
8. Banking & Insurance	4,931	5,356	6,035	1,337	1,312	1,302
9. Ownership of Dwellings	6,082	7,000	8,255	1,522	1,577	1,634
10. Public Administration & Defence	13,398	16,858	18,732	4,920	5,062	5,243
11. Services	15,158	17,729	21,299	3,510	3,711	3,924
12. Gross Domestic Product	178,801	212,471	249,038	46,891	50,157	53,020
13. Net Factor Income from Abroad	(+)14,514	(+)18,187	(+)26,094	(+)3,062	(+)3,135	(+)3,217
14. Gross National Product	193,315	230,658	275,132	49,953	53,292	56,237
15. Population (in Million)	77.90	80.23	82.60	77.90	80.23	82.60
16. Per Capita Income (in Rupees)	2,482	2,875	3,331	641	664	681

Table II-13 Net National Project

(Million Rupees)

Sectors	At Current Factor Cost			At Constant Factor Cost of 1959-60		
	1978-79 (Revised)	1979-80 (Revised)	1980-81 (Provisional)	1978-79 (Revised)	1979-80 (Revised)	1980-81 (Provisional)
1. Agriculture	54,541	62,436	70,894	14,050	15,024	15,686
Major Crops	29,356	33,761	37,271	7,899	8,633	9,053
Minor Crops	8,000	8,643	10,007	1,922	1,998	2,053
Livestock	16,001	18,588	21,724	4,067	4,219	4,385
Fishing	761	982	1,372	105	115	121
Forestry	423	462	520	57	59	59
2. Mining & Quarrying	1,310	2,114	2,722	210	237	260
3. Manufacturing	25,744	31,831	38,416	6,538	7,155	7,812
Large-scale	17,676	22,048	26,812	4,489	4,956	5,452
Small-scale	8,068	9,783	11,604	2,049	2,199	2,360
4. Construction	9,103	11,468	13,411	2,312	2,578	2,727
5. Electricity & Gas Distribution Services	3,058	4,353	5,109	1,248	1,405	1,552
6. Transport, Storage & Communication	11,402	13,423	16,153	2,833	3,029	3,211
7. Wholesale & Retail Trade	25,513	30,166	36,383	6,340	6,808	7,232
8. Banking & Insurance	4,835	5,236	5,907	1,311	1,283	1,274
9. Ownership of Dwellings	4,659	5,362	6,323	1,166	1,208	1,251
10. Public Adoministration & Defence	13,236	16,055	17,840	4,674	4,809	4,981
11. Services	14,400	16,843	20,235	3,335	3,525	3,728
12. Net Domestic Product	167,801	199,287	233,393	44,017	47,061	49,714
13. Net Factor Income from Abroad	(+)14,514	(+)18,187	(+)26,094	(+)3,062	(+)3,135	(+)3,217
14. Net Natinal Product	182,315	217,474	259,487	47,079	50,196	52,931
15. Population (in Million)	77.90	80.23	82.60	77.90	80.23	82.60
16. Per Capita Income (in Rupees)	2,340	2,711	3,142	604	626	641

Table II-14 Expenditure on National Product

Flows	At Current Prices			At Constant Prices of 1959-60		
	1978-79	1979-80 (Revised)	1980-81 (Provisional)	1978-79	1979-80 (Revised)	1980-81 (Provisional)
1. Private Consumption Expenditure	164,499	196,752	230,851	42,909	46,572	47,347
2. General Government Current Consumption Expenditure	19,177	22,551	26,200	4,111	5,035	5,173
3. Gross Domestic Fixed Capital Formation	31,427	39,275	43,829	6,601	6,754	6,931
4. Change in Stocks	1,750	2,000	2,800	432	451	561
5. Exports of Goods & Services	21,529	29,485	35,311	3,723	4,173	4,790
6. Imports of Goods & Services	(-)42,510	(-)54,540	(-)62,176	(-)7,273	(-)7,625	(-)6,215
7. Expenditure on GDP at Market Prices	195,872	235,523	276,815	51,103	55,360	58,587
8. Net Factor Income Payment from Abroad	14,514	(+)18,187	(+)26,094	(+)3,062	(+)3,135	(+)3,217
9. Expenditure on GNP at Market Prices	210,386	253,710	302,909	54,165	58,495	61,804
10. Indirect Taxes	(-)24,058	(-)30,151	(-)34,751	(-)5,936	(-)6,805	(-)6,965
11. Subsidies	(+)6,987	(+)7,099	(+)6,974	(+)1,724	(+)1,602	(+)1,398
12. GNP at Factor Cost	193,315	230,658	275,132	49,953	53,292	56,237
13. Provision for Fixed Capital Consumption	11,000	13,184	15,645	2,874	3,096	3,306
14. Net National Product at Factor Cost	182,315	217,474	259,487	47,079	50,196	52,931

II.3. PROVINCIAL LEVEL

Baluchistan is the largest province of Pakistan in terms of area and the smallest population. It spread, virtually as a platean, over 134,050 sq.miles (347,188 sq.kms) about 44 percent of the total area of the country. By contrast, the population of the province was reported in 1981 census at 4.3 million, forms only 5.1 percent of the total population of the country. The density of population is very low, around 12 persons per sq.km against an average national density of 105 persons per sq.km.

The Province has an extremely arid climate and the area is mostly hilly and barren. According to geo-physical characteristics, it can be divided into upper highlands, lower highlands, plains and deserts. There is very little rain in the province, the annual average rainfall varying from 2 inches (50 mm) to 8 inches (200 mm). This average is too little to support profitable cultivation of agricultural crops. There is hardly any perennial river to attract cultivation and permanent settlement except, of course, for occasional oasis and sporadic fertile valleys watered by mountain springs and underground channels called Karez. (See Tables III.2-1, III.2-10 and III.2-16, Appendix)

The Province is situated at the eastern flank of middle east and is strategically located close to the sea lanes leading into the Persian Gulf. The Province has a very long border in the north with Afghanistan and in the west with Iran and to the south a sea coast of more than 400 miles (644 kms). While settlement of fishermen inhabit a part of the sea coast, the area on the land borders with Iran and Afghanistan are particularly sparsely populated for want of road and rail infrastructure as well as the harsh environment.

Baluchistan was given the status of a full-fledged province after the dissolution of the single integrated province of West Pakistan in 1970 and has since been receiving special attention. The initial period of 2 - 3 years was devoted to the establishment of proper administrative machinery

in the Province. Since 1973 - 74, the Province has witnessed some fundamental changes, the spectrum ranging from improving drinkable water availability to the abolition of the Sardari (Tribal) system. The objective has been to bring the people of Baluchistan in the socio-economic mainstream of the country.

The size of Provincial development outlays during this period increased from Rs.140 million in 1971 - 72 to Rs.360 million in 1979 - 80. Similarly federal development expenditure in Baluchistan also increased substantially. Several projects which basically lie in the provincial sphere have been taken up by the Federal Government for financing to accelerate the pace of development in the Province. Besides, the federal government helped the Provincial Government in meeting the deficit in its non-developmental budget which has gone up from Rs.194 million to Rs.857 million during 1979 - 80. The incremental ecpenditure arose, not only out of the expanding administrative machinery, but also due to the setting up of health and education facilities.

A number of schemes in agriculture sector have been initiated and allocations in this respect increased from Rs.9 million in 1970 - 71 to Rs.57 million in 1979 - 80. There was a substantial rise in the use of fertilizer and the area under aerial spray for the plant protection was doubled in a ten years period to around 38,980 spray hectares in 1979 - 80.

Similarly efforts were intensified in the water resources sector where development outlays increased seven-fold in a period of ten years. Eight small dams were constructed and around 200 tubewells were installed. A substantial expenditure was also incurred on extension, re-modelling and enlargement of canals. As a result of land developemnt and irrigation programmes, the cultivated area increased from 1.17 million hectares in 1970 - 71 to 1.38 million hectares in 1977 - 78.

A general improvement in agricultural production was experienced. Wheat production rose from about 77 thousand tonnes in 1970 - 71 to about 234 thousand tonnes in 1979 - 80 and rice production increased from 28

thousand tonnes to 101 thousand tonnes over this period. In order to ensure regular supplies of food grains to the population, (the province will being deficient in foodgrains, particularly wheat) the storage capacity was increased from 56 thousand tonnes in 1970 - 71 to about 62 thousand tonnes in June, 1980.

Special efforts were made to develop fruit and vegetable production in the province. A number of projects for vegetable and potato seeds production were launched. The Provincial Government also initiated programmes on the distribution of seedlings of improved varieties of fruits. Consequently, the production of vegetable has increased from 59 thousand tonnes in 1970 - 71 to about 108 thousand tonnes in 1977 - 78. Production of fruits has increased from 191 thousand tonnes in 1970 - 71 to about 255 thousand tonnes in 1977 - 78.

To encourage the production of fish, work has been started on the construction of fish harbour at Gawadar and one at Sonmiani. Landing jetties are being constructed along the Mekran coast. This has resulted in increasing the production of fish from 40 thousand tonnes in 1971 to about 70 thousand tonnes in 1978.

During Seventies, attention was also given to the industrial development of Baluchistan. The Federal Government has so far invested Rs.973 million in Lasbella Textile Mill, Bolan Textile Mill, Harnai Woollen Mill and Darwaza Cement Plant. The Lasbella and Bolan Textile Mills are partially in production and Harnai Woollen Mill has been completed. As regards Durwaza Cement Project, sub-soil investigations have been completed.

The Provincial Government is also implementing a number of promitional, research and training schemes. The Baluchistan Development Authority, a semi-autonomous Government agency, has completed a vegetable ghee factory in Quetta and an automatic brick-making plant. The Provincial Government is also implementing the installation of a ferro-chrome manufacturing plant and engaged in the setting up of industrial estates at Uthal, Hub and Sariab Road, Quetta.

Development of Power which is now a federal responsibility was accorded a high priority. The installed capacity of Quetta Thermal Power Station the only major source of power before federalization has been raised from 15 MW to 48 MW. Both the number of consumers and electricity sold more than doubled during this period. Projects for setting up of diesel stations in 46 towns were initiated. The major portion of work has been completed. Baluchistan has also since been linked with the national grid running from North to South, by 220/132 KV Guddu/Sibi/Quetta transmission line. A project for supply of natural gas to Quetta has also been approved and is in the early stages of implementation. Most of the major gas field of the country lie in Baluchistan along its eastern border with the Provinces of Punjab and Sind.

In the communications sector, more than Rs.500 million were spent by the federal and provincial governments in the last ten yaers for the development of transport system in the Province. Around 1,500 miles (2,400 kms) of roads were constructed or improved. Some roads were also built for oil exploration in Baluchistan.

While in the seventies the public sector play a significant role in the socio-economic development of the Province, the performance of private sector was dismal. No firm estimates of provincial private investment are available. However, it would be safe to assume that such investment would be at best Rs.250 million annually, mostly in agriculture, housing and some in service sectors. No large-scale industrial investment took place in the province. In the mineral sector, where 90 percent of coal mines are owned by the private sector, negligible investment is reported to have been made. In order to encourage investment in the province, it enjoys special tax and other fiscal concessions which are available to no other province and in the face of these special concessions and incentives the poor performance of the private sector in the investment field particularly in industry and minerals can be attributed only to the lack of transport, communications and other infrastructure facilities in the Province.

In spite of the accelerated development effort made for the province in the seventies as described in the preceding section the present condition are still unsatisfactory. The transport and other infrastructure network is still deficient and there is very little economic activity out side the agriculture sector which itself is backwork. Though firm regional data is not available, some estimates suggest that per capita income in the province is still between one-half to two-thirds of the national average.

Agriculture sector has made some progress in the recent past. As described earlier, foodgrain production during 1979 - 80 is estimated at over 335 thousand tonnes, vegetables at 122 thousand tonnes and fruits at 254 thousand tonnes. The province is well placed in fisheries and livestock also but only recently work has been initiated to develop these sub-sectors.

In the industrial field, the province is extremely backword. A few small-scale industrial estate have been established which are not funtioning properly for lack of adequate infrastructure facilities. The number of large-scale industrial units is still less than 20, employing about two thousand worker and the value added bl these units is reported to beless than Rs.30 million. In seventies, a few industrial projects (2 Textile Mills) were started in the province which are partially in production. In the minerals field, some progress has been made but the main mineral-based industrial proejcts namely Mini Steel Mills, Saindak Copper and a Cement Plant are steel in the initial stage.

The resource potential of Baluchistan is known to be enormeries but has remained unexploited for several reasons. Firstly, as stated earlier the province remained a neglected region before independence and even in early years after the establishment of Pakistan, sufficient attention was not devoted to the development of this area. Secondly, due to vastness of its area, the prohibitively heavy requirement of investmentin infrastructure detersed accelerated development. Thirdly, lack of physical, financial and social infrastructure acted as a disincentive for the

private sector, the primum mobile of development strategy followed in the country in the fifties and sixties.

The unexploited eceonomic potential of the province lies both in the development of agriculture including livestock and fisheries and in minerals and natural resources such as coal, oil, gas, copper, iron are and related industries.

With the structure of production and employment agricultural, medium term development palns for the province must lay stress on this sector. Such an account in important because if would bridge the gap betwcen food requirements and availability in not easily accessible areas, increase employment and income for the population and help the nomadic groups settle down.

At present, only 7 percent of the cultivable area (3 percent of the total area) is under cultivation. There is a scarcity of surface water in the region which has resulted in the practice of primitive irrigation method. The region, on the other hand, has immense, resource of fertile land. The estimated cultivable area is around 47.7 million acre (19.3 million hectares). Development of water resources by providing dependable and adequate irrigation is, therefore, of paramount importance for utilization of land and for improving the standard of living of the inhabitants.

Recently, some expenditure has been made on investigation of water resources of the region. The unexploited potential can be harnessed by an all-out development of groundwater, rehabilitation and extension of irrigation through Karezes (subterranean channels), construction of dams at Mirani of river Dasht and at Bolan on river Bolan, improvement and expansion of existing flood irrigation system, harmonizing of stream for small irrigation schemes and remodelling of Pat Feeder which is the only mojar canal in the province fed by the Indus River system.