A REVIEW OF UNITED STATES DEVELOPMENT ASSISTANCE TO PAKISTAN 1952-1980

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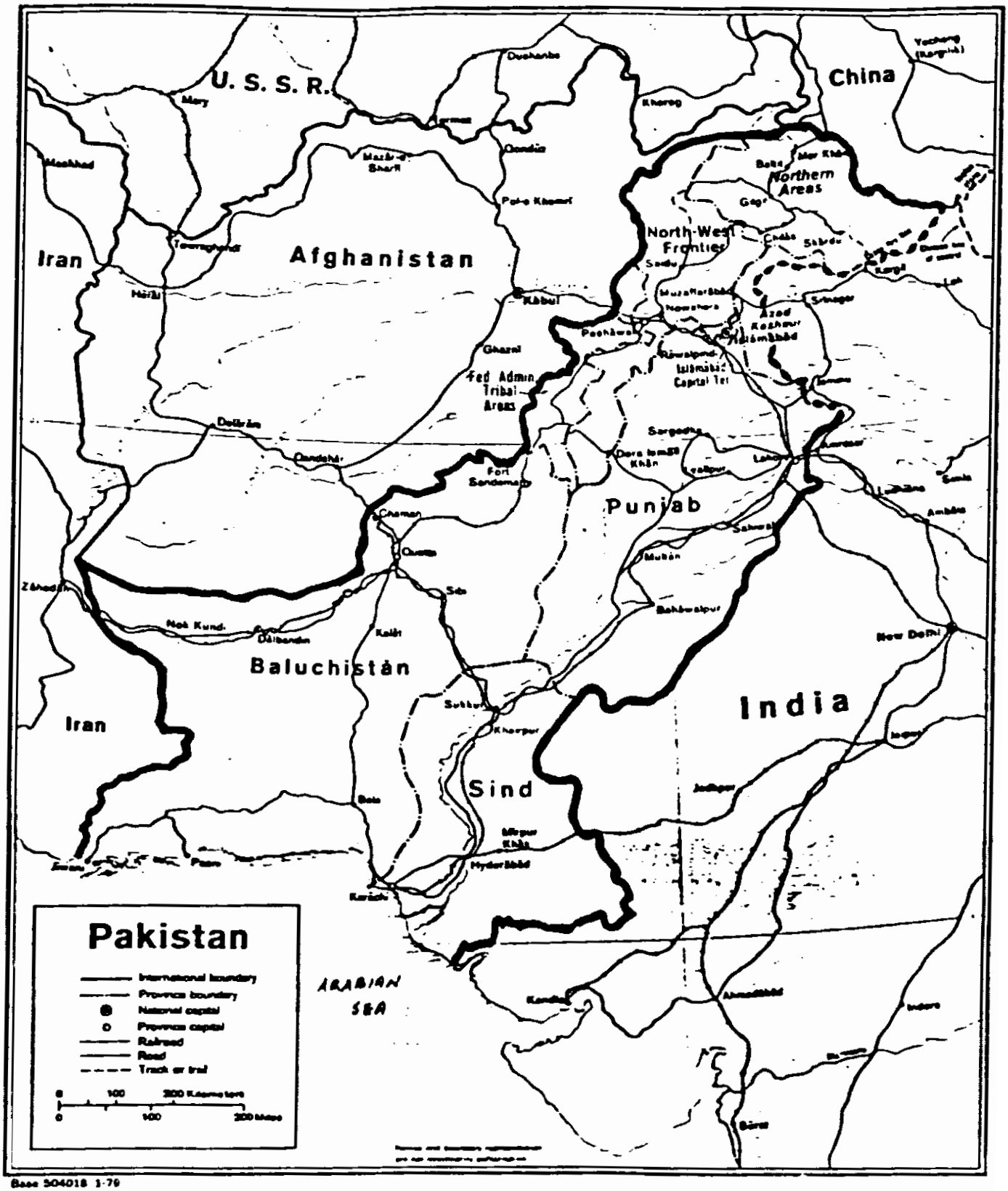
for
THE AGENCY FOR INTERNATIONAL DEVELOPMENT

FOREWORD

Pakistan is an Islamic Republic with a population of approximately 82 million people. As indicated on the map that follows it has four provinces, the Punjab, Sind, North-West Frontier and Baluchistan.

It is currently governed by President and Chief Martial Law Administrator General Zia-ul-Haq who assumed control of Government in 1977. Under martial law some of the articles of the 1973 constitution and the bicameral legislature have been suspended. The military rulers of Pakistan have promised elections as soon as the country is stable.

Pakistan's vital data are provided in the table that follows. It provides the reader with a comparison of data for low and middle income groups in Asia and the Pacific Regions. The data, which come from the World Bank, may differ somewhat from data originating in other sources.



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VITAL COUNTRY DATA

	Pakistan	Low Income Asia & Pacific	Middle Income Asia & Pacific
Land Area (Thousand Sq.Km.)			
Total	803.9		
Agricultural	253.0		
Population (Millions—mid-1980)	81.3		
Urban Population (%)	27.4	20.8	39.1
Population Density (Sq. Km.)	96.0	193.2	376.1
Annual Growth Rate (%)	3.1	2.2	2.4
Annual Urban Growth Rate (%)	4.4	3.9	4.1
Crude Birth Rate (Per Thousand)	45.0	37.4	28.7
Crude Death Rate (Per Thousand	15.0	14.6	7.9
Life Expectancy at Birth (Years)	52.0	50.8	63.0
Access Safe Water (% Population)	29.0	30.2	42.4
Access Excreta Disposal (% Population)	6.0	17.7	52.8
Population Per Physician	3,780.0	6,322.7	4,120.1
Adult Literacy Rate (% Population)	21.0	40.9	85.8
Per Capita GNP (Dollars—1978)	270.0	212.4	1,114.7
Total Labor Force (Thousands)	21,270.0		
Female (%)	10.0	29.4	36.8
Agriculture (%)	58.0	70.5	51.9
Industry (%)	19.0	11.6	21.9
Absolute Poverty Income Level (Dollars Per Capita)	176.0	107.8	
Urban	122.0	86.5	192.1
Rural			
Population Below Absolute Poverty Income Level (%)			
Urban	32.0	46.2	
Rural	29.0	51.7	33.2

Source: The World Bank International Development Association, February, 1981.

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CHAPTER I

SUMMARY REPORT

Background of the Study

The Asia Bureau of the Agency for International Development (AID) commissioned a review of United States development assistance to Pakistan from 1952 to 1980. The study, A Review of United States Development Assistance to Pakistan: 1952 to 1980, has as its genesis the understanding by U.S. officials that, with the scheduled phasing out of most current Pakistan aid programs, it is important to extract from the experience of past programs relevant lessons for the future. Such a review was urgently recommended by the U.S. Ambassador to Pakistan and the Acting Director, USAID Pakistan.

The Study proceeds from several general assumptions. First, that it is in the broad interest of the United States to foster and encourage Pakistan's economic development. Second, that the fundamental purpose of U.S. assistance to Pakistan has been to help it to develop and make more efficient use of its resources and to improve the living conditions of its people. Third, that Pakistan, like any other nation, exists and functions in the context of its unique set of historical, social, economic, and political circumstances.

Scope of the Study

For almost thirty years, beginning in 1952, the United States has provided bilateral economic and developmental aid to Pakistan. The Study is an assessment of the AID experience in Pakistan and focuses on the general areas of macro-economics, agriculture, population, health and nutrition, and public administration. It is aimed not at an evaluation of specific programs, but at discovering and analyzing those factors in the

AID experience which could be useful for the formulation of future U.S. aid policies in Pakistan. In doing so, the Study examines the course of Pakistan's development and the impact of AID's development assistance and interventions on that course, and discusses the current and future goals, objectives, and priorities of the Government of Pakistan (GOP).

Study Team

The team conducting the study consisted of the following five members, each of whom pursued specific areas of investigation and produced the chapters indicated:

Ambassador Charles A. James: Team Leader and Coordinator

Dr. Michael Rock: Chapter II - Macro Economic Perspectives

Dr. Richard Newberg: Chapter III - Agricultural Development

Dr. Milledge Walker: Chapter IV - Development Administration and Institution Building

Dr. Frederick Shaw: Chapter V - Population, Health, Nutrition

It should be noted that AID contracted separately with Drs. Newberg, Walker and Rock to write specific reports outlined above. Subsequent to these contracts, AID entered into a contract with JJ&A for the services of Dr. Shaw and Ambassador James, and to provide facilities for final preparation and production of the study. Thus, in keeping with the individual contracts of the team members, their works have been presented as distinct chapters of the report.

The Asia Bureau Assistant Program Officer for Pakistan traveled with the team and was an invaluable source of assistance as well as a full participant in the team's meetings and deliberations in Pakistan.

Study Approach

The Study was conducted in several distinct phases designed to (a) take advantage of the knowledge, documentary and personal, accumulated during the years of AID assistance to Pakistan; (b) assess Pakistan's economic and developmental progress, particularly as it relates to or is influenced by AID and other donor assistance; (c) analyze, in historical perspective, the factors that determined the degree to which foreign assistance programs contributed to or inhibited Pakistan's progress; and (d) extract from the foregoing some general theses or lessons that would serve as a foundation for future U.S. aid to Pakistan.

Phase I involved the collection of data available in Washington and the preparation of interview guides and other material for use in Pakistan.

Phase II consisted of the team's field trip to Pakistan to gather on-site information and impressions.

Phase III consisted of the writing of the draft report, discussions of the draft among the members of the team and between the team and AID representatives, acquisition and integration of additional needed information, and completion of the final report.

Limitations of the Study

The long period covered by the Study and its broad scope compelled some adjustments in approach. Many records and documents for earlier years were not available and some persons involved in past projects and programs could not be located. Research indicated that there have been in excess of 300 U.S. AID projects to Pakistan during the period of the Study.

The Study was greatly aided by the excellent cooperation it received from the officials of the GOP, members of international organizations, the memories of longtime Pakistani

employees of USAID/Pakistan, and the current staff of the U.S. Embassy and AID Mission in Pakistan.

Special thanks are due to Ambassador Hummel, Acting USAID Director George, and the officers and staff of the Asia Bureau of AID for their unstinting support and understanding.

Pakistan at Partition

Pakistan was created in 1947 as a self-governing Muslim nation, attendant on the withdrawal of British rule and the partition of India. It originally consisted of two wings, East and West, separated by more than 1,000 miles. In 1971 East Pakistan became independent Bangladesh. This Study and (unless otherwise specified) all statistical and other data cited herein deal only with the former West Pakistan, i.e., the country known today as Pakistan.

The Physical Environment

With an area of some 310,000 square miles, Pakistan stretches northward 1,000 miles from the Arabian Sea to the foothills of the Himalayas. It has two distinct geographical regions: the mountain ranges all along its western borders, and the plains area, through which the Indus River and its tributaries flow, running from the foot of the northern mountains south and east. The climate is of the dry continental type with a general paucity of rainfall. The mean temperatures in the plains area range from 40°F to 57°F in January and from 79°F to 87°F in July. Over a large part of the country, temperatures of 112°F in the hot months and 50°F in cold months are common. Average annual rainfall is less than 20 inches; melting snow from the mountains is an important contributor to irrigation water supply. Humidity in the plains is generally low, except for a narrow coastal strip around Karachi. The most common type of soil is alluvial, because of the great

river system spread out over most of the plains area. This soil is extremely fertile and rich in minerals. In addition to extensive natural gas and limited petroleum resources, Pakistan has salt, gypsum, coal, iron ore, sulphur, chromite and antimony deposits.

The People

The 1951 census figures showed Pakistan's population to be 33.7 million, up from 28 million in 1941 and from 16.6 million in 1901. Even before the partition-stimulated exchange of populations between Pakistan and India, the people of Pakistan were predominantly Muslim (today, 97 percent). Less than a sixth (or five million) met the most rudimentary literacy test, and 60 percent of these had no formal education. Female literacy was abysmally low. Only 14,000 people had BA/BS equivalent or better degrees. By current standards less than five percent of the entire population could be considered literate, and most of this number were concentrated in the towns and cities. The same urban concentration characterized the availability of medical facilities. There was only one medical doctor per 30,000 people, and doctors and hospitals were virtually non-existent in rural areas. There were no trained nurses, infant and child mortality was high, and malaria was widespread.

Industry

At partition, Pakistan had little industry, even for processing its own indigenous agricultural products. For example, in 1948, it was able to process only about 40,000 bales (15 million pounds) of its one million bale cotton crop (400 million pounds) and 25 percent of that ended up as "surplus cotton yarn" (not processed into cloth). Thirty-five million yards of cloth were produced, one yard per person. Paper and

paper-board production capability was virtually non-existent. Only one factory processed vegetable products, and only two sugar. There was no production and virtually no use of commercial fertilizer. Other production consisted of modest amounts of cement (287,000 M.T.), (beer 226,-000 imperial gallons), and sea salt (125,000 M.T.). In 1949, 13,000 tires and 238,000 gross boxes of matches (about one match per person per week) were produced. Other than this, processing and manufacturing were confined to traditional village level activities, e.g., wheat and oilseed crushing mills, village carpenters, blacksmiths, etc. Mineral production was limited to small quantities of limestone, salt, gypsum, fireclay and chromite.

Infrastructure

Productive infrastructure, other than industry, was in considerably better shape. Railroad track mileage in 1948 totaled 6,500 miles, (only 300 miles less than the level achieved in 1970-71), but the system as it stood was designed to serve the Pakistan-India linkage and considerable trunk line replacement was needed. Nevertheless, freight carried in 1948-49, the first full year of Pakistan's independence, totaled 6.4 million tons. Road mileage in 1947-48 totaled 13,821 miles, and concrete and asphalt surfaced roads 5,053 miles. However, offsetting this apparently substantial road network, Pakistan in 1947-48, had only 912 trucks (832 registered), or one truck for each 20 miles of improved road.

The port of Karachi had been the focus of major development and by 1947-48 had evolved from a 19th century village to a port handling 2.2 million tons of imports and 1.3 million tons of exports.

Agriculture

In 1947, agriculture was carried on with age-old traditional methods, employing animal power and a simple wooden plow to prepare the seed bed. The land was fertilized with animal manure, if at all, and seed of traditional (desi) types was broadcast by hand. When the crop was mature it was harvested by hand, and grain was threshed on an earthen floor by hand or with animals. Wheat was ground, oilseed crushed, cotton ginned and other products processed in small traditional village mills; considerable hand cotton cloth also was produced.

The village produced practically all of its own food, housing, clothing, tools, and fuel, but sold little of its product. The major national export crop was raw cotton, there being practically no large scale processing facilities. Modernization of agriculture, to the extent it existed at all, was limited largely to a highly-developed canal irrigation system covering some 20 million acres. Yet, a substantial level of output was being achieved--enough to meet food needs of the population at a level of about 2,000 calories daily per capita, and to export considerable amounts of cotton and some food.

The irrigation system had originated in the mid 19th Century, and at partition was shared with India. Both countries recognized the concept of co-riparian rights, and ultimately worked out the distribution of waters in negotiations begun in 1947 and concluded by the signing of the Indus Treaty in 1960. In 1947, however, Pakistan was concerned about two threats to the system, one immediate and one long-range. The immediate perceived threat was that India might divert the waters of three eastern rivers eventually allocated to it before Pakistan could make compensating arrangements, thus imperiling a large part of Pakistan's most fruitful agricultural lands. The long-term threat, which still exists, was posed by problems of

waterlogging and salinity. In 1947, these problems were by some estimates, affecting an additional 50,000 to 100,000 acres annually.

Development and U.S. Assistance

From a modest beginning in 1951, the U.S. bilateral assistance program to Pakistan grew to annual commitments approaching $400 million in the early 1960s and a cumulative commitment of approximately $5 billion through 1980.* The early program focused on technical assistance and disaster relief, but increasingly shifted to capital assistance, particularly after 1958. Of total U.S. bilateral aid commitments, 19 percent was project aid, 37 percent was program aid, and the remainder, over $2 billion, consisted of PL 480 concessional sales whose macro impact was similar to that of program aid. Of the project aid, 38 percent was allocated to agriculture, 34 percent to infrastructure with the bulk of the remainder in health and sanitation (11 percent), public administration (4 percent), and education (2 percent). Except for some fertilizer and other agricultural input financing, the vast majority of the program aid was used to import raw materials, spare parts, and capital to run the industrial sector.

Although in this summary the US/Pakistan aid relationship is broken into several chronologically discrete periods, marked by identifiable changes in the nature of problems and policies, development and U.S. assistance overlapped considerably from one period to the next.

Early Program

The early program (1951-1958) focused on assisting the new Muslim nation of Pakistan to overcome the economic consequences

*Sources for statistics and other material appearing in this summary are extensively footnoted in the main body of the report.

of the 1947 partition of British India. Except for a rather well developed irrigation system in the Indus valley and a considerable railroad network, Pakistan possessed a meager infrastructure and almost no industrial base. Much of the irrigation infrastructure was threatened by cut-offs of water from eastern rivers. The road and rails were oriented to former greater India trade and not to the trade needs of the new nation. To make matters worse, the emigration of Hindu professionals and the immigration of unskilled Muslims deprived Pakistan of a skilled labor force on which to found development while leaving it with a difficult refugee problem. Thus, it is not surprising that much of the early U.S. assistance effort focused on disaster relief, infrastructure rehabilitation and expansion, and technical assistance, including programs to modernize the public service. Following a foreign exchange crisis in 1952 and the breakdown of trade with India, the new government undertook a massive effort at rapid industrialization through import substitution. U.S. support for this effort consisted of expanded capital assistance for infrastructure development, increased technical aid to ease the "skills-shortage", and PL 480 concessional sales, which generated local currency for public investment and made it easier for Pakistan to finance industrialization by keeping agricultural prices low and thereby extracting an investable surplus from agriculture.

The results of these efforts were predictable, but in degree surprising. The industrial sector, dominated by textiles and large-scale industry, grew at annual rates approaching 24 percent while agriculture stagnated, barely keeping pace with population growth. It may be argued that U.S. assistance played an important role in these developments, but it would be a mistake to attribute too much to U.S. efforts, as a variety of circumstances worked to minimize the immediate impact

of U.S. aid on development. The size of the program, its administrative instability, the paucity of U.S. knowledge about Pakistan and about the role of foreign aid in development, the equivocating and uncertain commitment within the U. S. to foreign aid program, in combination with political instability and the lack of an orderly approach to development within Pakistan, all worked to minimize the effectiveness of aid utilization. Furthermore, except for disaster relief, food aid and the financing of fertilizer imports designed to bring about quick increase in agricultural output, U.S. assistance was aimed at creating the conditions for future agricultural and industrial growth. The experience gained during this period made it possible for future AID Missions to design a more effective assistance program in the next decade.

The Bilateral Program and Pakistan's "Take-off" Years

By 1959 the Pakistan economy appeared to be emerging from a rehabilitative stage and entering a "take-off". Prior investments, particularly in human resource development, began to pay off. A Ford Foundation project to train Pakistanis for planning development led to the publication of the nation's first systematic development plan. In addition, earlier investments in physical infrastructure--roads, railways, power, and communication--began to come on stream to provide needed inputs for further industrial and agricultural development. But most importantly, the 1958 military coup by Ayub Khan provided the country with a needed degree of stability and a commitment to development. In 1958 Ayub upgraded the Planning Commission to the status of Advisory Committee to the President, and charged the newly trained planners and their foreign advisors to focus attention on the country's pressing economic problems. In quick order attention focused on two issues: the stimulation of agricultural growth and reform of the newly

created industrial system. With respect to the former, the government abandoned compulsory procurement of grain at low fixed prices, lowered export taxes on raw cotton and jute, and increased agriculture's share in public development expenditures. In industry, the government established an export subsidy scheme, liberalized import licensing, and gradually replaced import quotas with tariffs. By adopting modernizing policies that the U.S. and the rest of the donor community advocated, the Pakistanis gained donor community financial support. Thus, it is not surprising that the U.S. bilateral program reached a zenith during this decade. The U.S. committed just under $3 billion, nearly 60 percent of its total commitments to Pakistan. Within the Second Five-Year Plan period (1960-1965) the U.S. provided 55 percent of all aid received by Pakistan, covering 35 percent of the government's development budget, and 45 percent of its import bill.

In addition to the GOP's adoption of policies which made it easier for the U.S. to increase assistance, an understanding of Pakistan's economic problems and of how foreign aid could be used to ameliorate them led the U.S. to assist in implementing a series of strategies for dealing with flagging industrial and agricultural growth and for assisting a large-scale effort aimed at infrastructure development. By 1962, planned AID investments were embodied in a series of "goal plans".

AID's Goal Plans for Pakistan during "Take-off"

In industry, the USAID "goal plan" was to enhance productivity by alleviating Pakistan's structural balance of payment problem. In addition to financing imported capital goods, raws materials, and spare parts to increase capacity utilization rates, the U.S. funded a series of projects designed to increase the managerial and technical capacity of Pakistan's industrial firms. In agriculture, the AID "goal plan" was to

increase low yields by concentrating resources on the development of a series of one million acre areas in the Indus Plain. By arguing that low productivity was the result of a multitude of problems, "...any one of which if left unattended could frustrate in large measure activities taken in others," AID came to support an intensive rather than an extensive agricultural strategy. The USAID Mission, recognizing that growth in industry and agriculture was dependent on rehabilitation and expansion of Pakistan's water, power, transportation, and communications networks, now provided additional support to these areas.

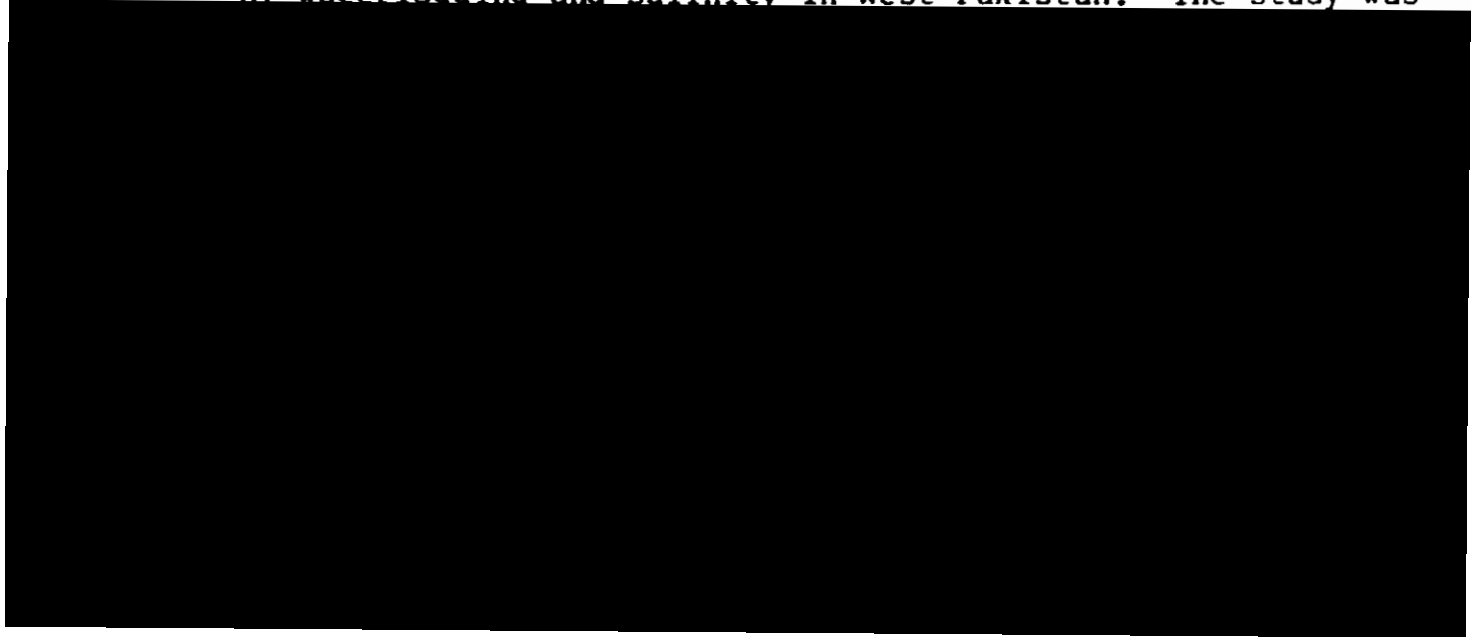
The results of these policy changes and increased resource availabiliy were highly rewarding. GNP at constant prices grew annually at a little over five percent while major crop output was growing at 4.1 percent and industry at 6.3 percent. Both the domestic savings rate and the gross investment rate jumped while income per capita was growing at an annual rate of 2.3 percent.

Both the size of the U.S. aid program and the increased sophistication of USAID programmers suggest that U.S. assistance generally played an important role in the healthy performance of the economy during this period. In industry, available evidence suggests that the U.S.-supported commodity assistance program was generating significant returns. Surveys demonstrated that the largely U.S.-financed industrial imports were bringing about higher capacity utilization rates. Furthermore, there is some evidence that the program was fostering higher growth rates in capital goods and intermediate goods industries. But an unfortunate turn in political events brought a rather abrupt halt to the import liberalization program, thus at least partially unravelling these positive developments. U.S. concern over the 1965 Indo-Pakistan war led to a cessation of new commitments and to the cancellation of the sixth

and seventh meetings of the Pakistan Aid Consortium. Although U.S. bilateral aid was quickly resumed, it never reached pre-war levels. The rapid reduction in foreign aid in combination with a growth in defense expenditures made it difficult for the GOP to finance the imports associated with the liberalization program. Not surprisingly, Pakistan resurrected elements of its old trade regime and with predictable consequences. By the GOP denying the industrial sector the inputs to run plants at full capacity and resorting to import quotas, capacity utilization rates fell while the inefficiencies associated with the old protective system reappeared. Furthermore, the reduction in capacity utilization rates undoubtedly led to increases in unit costs, thus depriving the industrial sector of increased profits. Given the high reinvestment rates out of profits, this must have had a negative effect on both savings and investment rates.

The Revelle Report--A Strategy Unfulfilled

To make matters worse, there was never full agreement between Pakistan and the U.S. on the area development strategy for agriculture, formalized as a joint White House, Department of Interior study (more commonly known as the Revelle Report) of waterlogging and salinity in West Pakistan. The study was



inputs, most particularly fertilizer, to small project areas within the scope, as the plan was visualized. Second, the report proposed a reorganization of the Pakistan Government along area as opposed to functional lines, a proposal which found little favor with the generalist-oriented senior bureaucrats. Given the opposition in Pakistan on both counts, it is not surprising that after financing three area development projects (known as SCARPs), AID obligated and then de-obligated the fourth in 1968. The SCARP projects did however help to mobilize the government to deal more effectively with lagging agricultural productivity, and they continue today, though at reduced levels.

GOP Policies, U.S. Assistance--Second Plan

On a more positive note, U.S. assistance efforts seem to have produced encouraging results in three areas. First, the timing of increased PL 480 wheat sales and of Pakistan's increased support prices for its agricultural products in 1959 suggests that those sales may have encouraged the GOP to adopt more favorable price policies. There is a sound argument to be made that favorable price policies played a highly important role in the breakthrough in agriculture which occurred during the Second Plan period. Second, a number of AID supported technical assistance projects, including assistance to the Pakistan Industrial Credit and Investment Corporation (PICIC), the Industrial Advisory Centre (IAC), the West Pakistan Water and Power Development Authority (WAPDA), and the Agricultural University at Faisalabad, appear to have produced lasting effects, as each of these institutions has attained a degree of self-sustaining prominence in Pakistan. GOP officials praised AID's training programs, which by all accounts were successful. (The vast majority of AID trainees have remained in Pakistan, but many highly qualified professional

technicians were unable to find a meaningful role in the generalist-dominated public service and have quit Pakistan for opportunities abroad). Third, U.S. investments in infrastructure rehabilitation and expansion, especially in air, water, power, and rail development continue to generate positive benefits. One cannot travel in Pakistan today without being aware of the extensive nature of infrastructure development. Further study is needed to analyze the full impact of these developments.

Political Unrest

The 1965 war with India was followed by the emergence of sharply critical attacks on the decade's economic accomplishments. Some argued that West Pakistan was "exploiting" East Pakistan by diverting foreign exchange earned in the East to finance industrial development in the West, while others argued that the benefits of growth even in West Pakistan had fallen to a select few. These attacks seemed to shake the confidence of those responsible for managing development, and provided an additional political weapon with which to challenge the status quo, including the fragile East-West linkage. Economic disillusionment, following the euphoria at the first half of the decade, undoubtedly contributed to the political unrest which ultimately led to the break-up of Pakistan into two separate nations and the rise of power of Z.A. Bhutto. His efforts to broaden, rapidly and drastically, the base of social, political and economic participation in development, in what remained of Pakistan, foundered on the shoals of his excessive zeal. In retrospect, it seems clear that the lack of concern or, at least, the lack of attention by Pakistani leaders to the growing social, political, and economic inequities was a key factor in the political disintegration which took place from 1965 to 1972. Some studies seem to indicate

that the rapid growth of the 1960s did result in a major improvement in levels of real income of laborers and other low income groups. However, the extent of awareness among such groups and their subsequent disillusionment, which occurred in the latter part of the decade, is not known and probably cannot be assessed at this time.

What is especially interesting about these developments is that USAID program analysts were keenly aware of the potentially explosive nature of Pakistani society as early as 1962, but made little adjustment in program focus to cope with this problem. Between 1965 and 1968, the USAID Mission continued to support the macro growth strategy developed in 1962-63. After 1968, the Mission attempted to redress the imbalance in aid allocation between East and West by establishing a larger effort in East Pakistan, and it prepared a series of papers aimed at reforming the industrial system to bring about greater participation. The latter effort never got off the ground and the Mission subsequently let the aid program in West Pakistan wind down. The outbreak of civil war in 1971 finally led to a sharp curtailment of new aid, as non PL 480 commitments dropped to $7 million. In light of this pattern, it is difficult to argue that AID played a productive role in assisting Pakistan during this transition period. Compared to the large U.S. aid flows of the early 1960s, which averaged $375 million annually, average annual commitments fell to a low $150 million. Considering that foreign aid fell from 6.6 percent of the GNP in 1965-1966 to less than one percent in 1971-1972, and that at the same time Pakistan increased its defense expenditures, it is little wonder that the rate of growth declined.

The Bhutto Period

In December, 1971, the new Bhutto government turned its attention to restructuring a fractured economy and to fulfilling its promise to curb the excesses of the previous pattern

of development. To meet the latter, the government committed itself to revising the health care system, expanding educational opportunities, enhancing the productivity of small farmers, and using the power of the state to establish greater control over private sector activities to restrain the amassing of wealth by a few. One aspect of the program was reform of the administrative structure, which Bhutto sought to achieve by weakening the position of the influential elite leadership of the civil service. Initially, the government's efforts were constrained by severe resource shortfalls. A world recession, the consequences of OPEC's oil price policies, and low foreign aid commitments made it difficult for the new regime to meet its goals. Pressed by the need to satisfy his constituency and by resource scarcity, Bhutto adopted a series of policies toward industry and agriculture which only encouraged capital flight, depressed the savings rate, and reduced incentive prices for farmers. Not surprisingly, the gross domestic product at constant factor cost barely kept pace with a three percent population growth rate. After 1973-74, the government recognized the importance of increasing incentive prices in agriculture, and it adopted policies which improved the benefit cost ratios associated with increased fertilizer use and increased growth rates of major crops.

Beginning in 1971 the USAID Mission prepared a series of sector papers which formed the basis for a resumption of the bilateral program in FY 1973. Uncertainties surrounding the new government's priorities led the Mission to support the GOP's 1973 requests for debt relief, commodity loans, and an expanded PL 480 program, but the Mission viewed this program in "transitional" terms. In the interim, pressed by the passage of the Foreign Assistance Act of 1973 which stressed the pursuit of growth with equity to meet basic human needs, the Mission set about devising a new assistance strategy. Lack of

interest in AID/Washington in the industrial sector, in combination with Bhutto's nationalization of 31 firms in ten basic industries, including the vegetable ghee industry, and his support for the publicly owned Russian-assisted steel mill in Karachi, led the Mission to drop discussion of the industrial sector in its FY 1974 statement.

Agricultural Emphasis Renewed

Instead, the Mission seized on the new government's concern for the small farmer and for the poor to propose a series of investments in agriculture and the social sector. In agriculture, the Mission focused on water and fertilizer, while its investments in the social sector included support for family planning, nutrition research, malaria control, and rural health. With respect to the former, AID funded a research project on water management and a follow-on demonstration project, and sought to get the GOP to develop a fertilizer strategy. In support of that strategy, AID agreed to finance research to identify the constraints to increased fertilizer use, provide foreign exchange to cover fertilizer imports, and assist the GOP to increase domestic fertilizer production capabilities.

The efforts in agriculture have been on a much greater scale than those in the social sector. The research project on water management demonstrated, much to the surprise of everyone involved, that as much as 40 percent of Pakistan's irrigation water was being lost in her water courses. As a result, the Mission funded a demonstration project to improve the water courses and, although that effort has proved to be too costly to replicate nationally it has galvanized both the GOP and the donor community to search for more effective ways to reduce water losses. USAID financial support for the GOP's fertilizer strategy has focused attention in this direction

and played an important role in gaining donor community support for a larger effort. As a result, fertilizer consumption has grown rapidly and has been the single most important cause of the recent rapid growth in agriculture production and particularly wheat production after 1974.

Social Sector Development

On the other hand, the GOP has shown ambivalence toward social sector investments. Three major social programs, population and family planning, health, and nutrition have been examined by the review team. Between 1952 and 1980, AID expenditures in Pakistan for these programs amounted to $78,152,000, with the breakdown as follows: population and family planning--$25,806,000, health promotion--$52,070,000, (over 80 percent devoted to malaria control), and nutrition promotion--$276,000.

Population and Family Planning assistance accounts for .5 percent of total U.S. assistance to Pakistan and over 70 percent of this was expended in the period 1973-78. There has been no assistance since April, 1979. The GOP population programs began in the mid-1950s on a modest scale and increased in size and momentum through the 1960s, reaching a zenith in the 1970s. Much foreign support, principally from USAID, UNFPA, Germany, and Sweden, bolstered the government's efforts until the late 1970s. Currently the program receives limited foreign assistance, only from UNFPA. The principal reason for the withdrawal of support was the absence of positive results in use of contraceptive methods and in the spread of knowledge about these methods. More important, total fertility rates had not dropped. The effort seems to have failed because of: internal organizational problems; the necessity of training large numbers of people when the program did not have the capability; problems in distribution logistics; inadequate research and evaluation efforts; different program expectations

of AID officials and Pakistanis; and program interruptions caused by changes in the priorities of both governments. Although the statistical base is inadequate, recent estimates indicate a 1980 population of 82 million and an annual growth rate of three percent. At the current rate, Pakistan, already the 9th most populous country, will come close to doubling in population by 2,000 A.D. GOP officials express alarm at the population growth rate but until recently few have seemed to appreciate the dimensions of the problem and/or accord it a high priority.

Health promotion assistance by the U.S. accounts for only about one percent of total U.S. aid, but it has had positive results. Pakistan's problems in this area are enormous, and despite the GOP's increasingly effective efforts to expand the health care system, health services are by and large inadequate, except in the larger urban communities. U.S. assistance to various anti-malaria projects has helped achieve results, but on a more modest scale than anticipated. AID is also providing major funding for a pilot Basic Health Services Project, intended to establish basic health units in the rural areas.

On nutrition, available records indicate that GOP activities have been largely limited to working with international relief agencies. For the most part, these agencies are less than satisfied with the Government of Pakistan's participation and support. AID's contribution was totally expended on a Nutrition Planning and Research Project which ran from 1974 to 1977 and for which records could not be located. Other projects were considered, scheduled and eventually dropped. The AID-funded rural health project is beset by difficulties, among them the opposition of physicians to having trained paramedics diagnose and treat minor health problems, and inability to attract enough physicians and trained women paramedics to staff the basic health units in rural areas, where social customs prohibit treatment of women by men.

AID Impact From 1973

While it is too early to assess the ultimate impact of AID's investments on development after 1973, several aspects deserve mention. First, the size of the U.S. program between 1973 and 1977 was small by historical standards. Annual commitments averaged only $8 million more than investments made between 1969 and 1973. Furthermore, U.S. assistance remained relatively small in comparison to standard macro-economic indicators (i.e., GNP, per capita income, etc.), and Pakistan's growing development needs. Despite this, the efforts in fertilizer and water seem to be producing results out of proportion to the size of the financial flow. By contrast, efforts in the social sector are producing meager results. Although a variety of factors probably contribute to the differences in the results from these two sectors, the most significant factor could be the degree of difference in GOP commitment to them. For example, AID's extensive strategy for increasing the supply of agricultural inputs is consistent with the GOP's conception of the most effective way to increase agricultural productivity. At least since the early 1960s, GOP officials have been arguing that low productivity is due to the lack of and/or inadequate supply of inputs. The inputs strategy has the further advantage of directly increasing the growth rate, which is consistent with the expressed sentiment that the quickest way to improve the basic human needs of the poor is through the "trickle-down" effects of rapid growth. On the other hand, there is ample evidence to support the conclusion that Government (by and large) has lacked interest in social sector investments. AID's assessment of Pakistan's commitment and performance in the social sector demonstrates that Pakistan fares poorly in comparison with other countries at a similar stage of development. Similarly, at least one analyst has argued that policy-makers have not yet

> ...been convinced that a healthy nation is one of the most valuable capital assets a country can have.

Finally, a number of GOP officials interviewed during October and November, 1980 were quite frank in expressing their disenchantment with the pressure they were receiving from the donor community to increase resource allocations to what they referred to an non-income producing social investments.

This emphasis on macro-growth at the expense of a commitment to greater equity has been heightened since the overthrow of the Bhutto government in 1977. The new government of President Zia was quick to realize that Bhutto's downfall was largely a result of his inability to deal effectively with pressing economic problems. Thus, the Zia government undertook a number of corrective measures, such as offering increased incentives to farmers, dismantling public control of the industrial sector, and restoring the position of the elitist leadership of the bureaucracy, designed to revitalize the economy and to rebuild confidence.

These changes seem to have produced encouraging results, but difficult problems remain. Productivity in agriculture and industry continues to be low despite the policy changes and the balance of payments remains in a precarious position. Foreign exchange needs are acute, burdened by heavy debt-service obligations. A large part of these needs (60 percent of Pakistan's import bill and eight percent of its GNP) today is met by worker remittances, mainly from the Middle East, but remittance growth rates are leveling off. Furthermore, the continuing debate over denationalization and the pace of Islamization seems to reflect a tension between those who espouse a return to macro-growth and those who argue for broadening the base of participation in social, political and economic life. Some officials see this debate as a search for national identity, and several commented that Islamization could be the vehicle by which Pakistan finally integrates growth with equity.

Since 1978, assistance has been limited to drawdowns on existing projects, PL 480 sales and support for debt rescheduling.

Pakistan's disappointment with this curtailment of aid reflects concern not only over the need for assistance, but also over the disturbing implications for the US/Pakistan relationship as a whole.

Recently the GOP signed a three-year EFF agreement with the International Monetary Fund (IMF). In recognition of Pakistan's precarious balance of payments position, the IMF has extended credit up to $1.7 billion over the three years in conjunction with the adoption by the GOP of a series of macro policy changes designed to increase the growth rate. While the Western donor agencies have not, as yet, offered additional financial support, the IMF package is based on the assumption that the major donors will come forth with some combination of structural adjustment, lending and debt relief. Although it is apparent that the IMF is concerned about international financial stability and that Pakistan is strongly motivated to increase its aggregate growth rates, the framework of the current dialogue is likely to continue to detract attention from pressing needs in the social sector. AID's current emphasis on growth with equity places it in a potential position of leadership and influence within the donor community. The continued delay in resumption of the bilateral program may be depriving both Pakistan and the donor community of a much needed opportunity to provide a better balance between growth emphasized in the IMF agreement, and increased equity which is an important end in itself. This may be critical in avoiding a repeat of the political disturbance of the late 1960s and early 1970s.

Lessons Learned

A number of important lessons about the relationship between aid and development can be gleaned from the United States/Pakistan bilateral assistance experience.

The Cost of Aid Interruptions

The bilateral program was interrupted for political reasons at least three times during the period 1965 to 1978. Furthermore, the rapid growth in assistance between 1960 and 1965 was followed by an equally rapid decline after 1965. In each instance, this lack of stability in U.S. aid commitments worked to wholly or partially negate the developmental impact of the resource transfer. The cessation of new commodity commitments following the 1965 War and the breakdown of the Pakistan Consortium made it difficult for Pakistan to continue the import liberalization program that donors and recipient had worked so hard to establish. While subsequent internal political developments may have made it impossible for Pakistan to carry out the program, there is little doubt that the rapid reduction in aid commitments hastened the resurrection of elements of the old trade regime, thus largely negating the positive impact of the commodity assistance program on capacity utilization rates and industrial structure. Similarly, the cessation of new commitments in 1978 can be expected to severely limit the impact of the resource transfers associated with the U.S. program between 1973 and 1978. The current curtailment is less likely to affect the productivity of investments in water programs, which have proven their value, than to affect investments in fertilizer and the social sector. Severe resource shortages will make it more difficult for the government to maintain the disciplined scheduling of required level of imports for the fertilizer programs, and the GOP may be compelled to terminate the social sector programs in the absence of significant U.S. or other foreign assistance.

The Importance of Stable Commitments

Additionally, erratic fluctuations in aid commitments make it difficult for the managers of development to plan successfully. The reductions in aid which followed difficult

political times, especially tetween 1969 and 1973, exacerbated the economic decline, making it more difficult for the government to resolve tensions in a productive way. To the observer it seems that ways could have been found to alleviate the tensions within Pakistan other than those ultimately adopted by the Bhutto government. There was warning as early as 1968 that pressures for nationalization would grow unless mechanisms were created for broadening the base of participation in the industrial system. In addition, AID personnel had developed a series of proposals for alleviating those tensions. The U.S. not only did not support those measures, it systematically reduced new commitments to Pakistan (the former West Pakistan) between 1969 and 1973, depriving it of both the strategy and the resources needed to resolve its difficulties in the most productive manner possible.

The Limits of Leverage

Aid practitioners as well as critics have been enamored of the concept of policy leverage. Those who favor macro approaches to aid allocations are fond of arguing that nothing is more important than the adoption of correct macroeconomic policies, while the critics contend that the donor "conditioning system" represents an unwarranted intrusion in the domestic decision-making processes. There is little doubt that policy changes, particularly those adopted prior to and during the Second Plan period, played an important role in Pakistan's "take-off" during the Second Plan period. The results of changes in support prices for agriculture and in liberalization of the import system offer powerful support for those who favor this approach to aid giving. But the Pakistan experience suggests that much of the argument has been overdrawn on both sides. For one thing, the success of the efforts in the 1960s as well as the increasing fertilizer activity is attributable

more to donors' acquiescence and support for policy changes that Pakistan wished to make, than to donor "conditioning" of Pakistan. Those who favor leverage give too much credit to donor agencies' capacity to influence governments to adopt the "right" policies. Second, in the case of the large-scale commodity assistance programs, foreign aid broadens the base of participation in the import system, thereby helping to reduce the potential political costs of a program designed to enhance efficiency. This does not fit the picture of "unacceptable interference in domestic politics" that critics portray in discussion of the "conditioning system". Third, in those instances when the U.S. has tried to leverage the GOP in the manner portrayed by critics, the attempt has not been successful. The governmental reorganization proposed in the Revelle Report was never fully implemented and the lack of support within the GOP for an integrated area development strategy played a large role in the failure of the SCARP program. Also, the changes advocated by the U.S. in the structure and operational style of the public service never took, partly because of traditional attitudes, partly because of an overly aggressive promotion of change.

Finally, the lack of interest within the GOP in social sector investments helps to explain the poor performance of recently funded AID projects in health. These examples demonstrate all too clearly how difficult it is to get governments to do something with which they do not agree.

What Form of Aid

Leverage discussions are often debates over the most productive form of aid giving. Those who are most appreciative of the importance of macro policy decisions tend to favor a form of aid variously referred to as commodity aid, program aid, or aid for budget support. This mode of aid is not project oriented but acts as a plug to fill a resource gap. While

it is difficult to argue with the theoretical basis of the preference for generalized aid over project aid, the Pakistan experience suggests that the more generalized aid is subject to a number of important problems. First, generalized aid forms tend to be both quick-disbursing and less tied to specific activities, so that they are subject to greater manipulation by both donor and recipient. On the donor side, the quick disbursement nature of this aid form is a convenient instrument for those who would like to use aid as a tool of foreign policy. Thus it is not surprising that the U.S. aid cutbacks in 1965 and 1978 focused on reductions in commodity aid rather than project aid. On the recipient side, the dynamics of domestic political processes make it all too easy for government officials to argue that they are unable to implement the policy changes attached to commodity aid flows. By failing to carry out agreed-upon changes, recipients place donors in a difficult position. If the donor threatens to reduce or withhold committed money to enforce the agreement, resentment seems inevitable. In all probability the recipient will argue that the donor is not responsive to the pressures faced by the recipient government. If the donor accedes to recipient non-compliance, much of the developmental impact of the assistance may be lost, but the donor may consider this preferable to straining relations with the recipient. Furthermore, by agreeing to non-compliance, the donor signals the recipient that the aid can be gotten without meeting the donor's conditions. This may have the effect of getting the recipient country to agree to conditions it has no intention of meeting, just to gain additional budgetary support. Unfortunately, this scenario seems to have characterized U.S./GOP relationships with respect to PL 480 agreements for imports of vegetable oil. Second, commodity aid offered in support of policy changes seems to generate less lasting impacts than

project aid. As mentioned earlier, reductions in U.S. support for the import liberalization program before it had achieved its objectives led to a rapid unraveling of its positive benefits, leaving Pakistan with little more than a larger debt. Since the benefits associated with this form of aid are contingent upon maintenance of the "right" policies, deviations from ideal policies are likely to reduce expected benefits significantly.

On the other hand, U.S. aid for infrastructure development and institution building seemingly produced effects that continued long after assistance ended. The extensive infrastructure system in the Punjab is ample testimony to the lasting effects of infrastructure aid, while the self-sustaining viability of a wide range of institutions, from PICIC, IAC, WAPDA, to the research station at Mona and the Agricultural University at Faisalabad (even though the University's image has suffered from its lack of practical focus on Pakistan's development problems), attests to the lasting significance of that aid. But these differences should not be surprising. By definition, commodity aid is offered in support for the "right" policies, but those policies are often subject to intense political debate within recipient governments. Unless they are based on a broad, stable consensus or are supported by a strong authoritarian regime, pressures are likely to develop which make it difficult for any government to maintain them over the long run. Even with stability, intense resource shortages and the seeming inevitability of exogenous shocks--from floods, droughts, world recessions, oil price hikes to population booms and migrations--weaken the ability of governments to maintain correct policies, and when they don't the benefits associated with commodity aid disappear.

On the other hand, project aid offers a number of advantages. First, not only has it produced more lasting results

in the Pakistani context, but whenever the U.S. terminated aid to Pakistan it tended to complete projects already under way, thus minimizing at least the immediate economic impact of resource reductions. Second, a donor can maintain support to micro projects where progress can be achieved despite a bleak macro picture. A good example is represented by U.S. support for Pakistan agriculture after 1973.

Problems with Project Aid

The recent planning and administration of project aid in Pakistan has not been without problems. In a series of interviews relevant GOP officials contended that:

1. Not only has project aid been slow disbursing, but projects have tended to require a greater share of local currency funding from Pakistan's development budget. Donors have been unwilling to finance local currency costs. The slower disbursement rates seem related to the lower capital intensity of recently funded projects as well as to the high costs of project administration. With respect to those costs, GOP officials complained that administrative requirements have become more complex and that each donor has its own special set of requirements. With respect to local currency financing, officials argued that by financing projects with lower foreign exchange costs, the donor community was increasing the resource strain on local development budgets.

2. The shift in donor preference from commodity aid to project aid has created a certain fragmentation in donor assistance and development planning. GOP officials complain that each donor seems to have its own objectives and its own set of "pet" projects that it wants to finance. Unfortunately, this creates pressures to make a set of investment decisions which are neither integrated into a well articulated development plan nor reflective of GOP priorities.

3. Donor technical requirements for projects often exceed GOP capabilities and significantly increase project costs, thus reducing the benefit cost ratios of donor-funded projects. Although there was general agreement that the AID-funded project in water management was one of the best projects financed by the

donor community, GOP officials argued that the capital intensity of the project made it impossible for the GOP to replicate it on a national scale.

While it was not possible to fully corroborate these statements, they are consistent with the burgeoning literature on project administration as well as with information about the growth of project pipelines within AID. For these reasons it is suggested that AID consider funding a study of these problems within the Pakistani context with a view toward assessing the seriousness of the problem and investigating ways to increase the efficiency of resource use.

The Equity Factor

Pakistan's failure to "take-off" and the disappointing performance in the economy since 1965 seems largely due to the failure of the GOP and the donor community to pay adequate attention to the social, political and economic inequities underlying the surface stability of the Ayub government. There is no doubt that those inequities are more difficult to deal with than macro growth, nor can one underestimate the substantial economic achievements which took place in the Second and Third Plan periods. But the Pakistani experience strongly suggests that the benefits of macro growth will not necessarily trickle down to low-income groups. Consequently, those responsible for managing development should at least consider the distributional consequences of alternative investment decisions. At the present time, GOP officials seem preoccupied with revitalizing the growth process, and those who expressed views on equity considerations seem to be operating under an assumption that the growth costs of equity are prohibitive. AID's current unwillingness to finance capital intensive infrastructure investments or high-skill training only feeds GOP fears in this regard, since it is difficult for the GOP to believe that Pakistan's breakthrough in the 1960s could have occurred without

either the massive investments in water, power and transportation or those in technical training. Pakistan has not had demonstrative evidence of its capacity to meet equity goals with minimal sacrifice in growth. Therefore, Pakistanis complain that the donor community is pushing them into non-income generating activities which tend to reduce the rate of growth and ultimately the ability of poorer groups to satisfy their basic human needs on a self-sustaining basis. When combined with the recently signed International Monetary Fund agreement, which ignores the importance of investments in the social sector, the prospect looms that Pakistan may once again turn toward a focus on macro growth which ignores the need to consider the equity aspects of investment decisions. If this happens one can only hope that there will not be a repetition of the tensions played out between 1968 and 1977.

On the other hand, it must be noted that there is a revived and increasingly profound concern in Pakistan over one aspect of social sector activity--the continuing high population growth rate--and an apparent GOP determination to come to grips with a problem that, if unchecked, may well doom any hope of progress. A new and well-formulated plan has been devised, which integrates expanded health and nutrition programs with a theoretically workable population program. The success of this plan depends not only on Pakistan's organizational flexibility, but also on the availability of significant donor support.

Major Implications For The Future

This review of the AID experience in Pakistan is framed solely in the development context. Obviously there are other considerations--political and strategic--to be taken into account in determining the future course of U.S. aid to Pakistan

Such considerations are beyond the scope of this review. But if a resumption of aid is contemplated or decided upon, the following comments and observations may be pertinent:

Development Climate

Pakistan's development climate today is improving, although still uneven. Stability under a martial-law government is historically one which tends to obscure underlying tensions, industrial productivity is low, and additional uncertainties arise from the effects of the Islamization process, still in its early stages. On the other hand, the Zia government appears to have a fair measure of popular support and has shown an increasing commmitment to economic growth through measures to accelerate agricultural production, promote exports and denationalize industry. It is cognizant of the dangers inherent in failing to address social and economic inequities, and has recently adopted a Population Welfare Plan which incorporates a broad-scale attack on a wide range of social sector deficiencies. And thus far, at least, Islamization has had no negative impact on the development climate.

Continuity of Economic Assistance

The disruptive effects of sudden stoppages and changes in direction of U.S. assistance have been discussed under "Lessons Learned." All that requires saying here is that any program of economic assistance offered to Pakistan should carry with it a commitment to see it through. It would be preferable to formulate such a program at very modest levels, focusing on a few selected areas, than to undertake a larger program without a long-term commitment. Commitment to continuity implies that

programs be realistic in scope and objective, reflecting not only U.S. capacity and willingness to supply aid, but also an appreciation of Pakistan's sensitivities, constraints, and administrative limitations. It should not imply continued dependence on foreign assistance as a permanent substitute for Pakistan's resource commitments.

Donor Coordination

Probably the most effective method of foreign aid infusion would be for the consortium to work with the GOP in developing long-term assistance strategies to which both Pakistan and the donor community would commit themselves. But even if this is today unattainable, closer coordination and integration of donor efforts is imperative in order to help focus the development process, eliminate duplication of planning and resources, facilitate assessment of needs and availabilities, strengthen the review process, and increase the effectiveness of the foreign assistance effort in general. Many officials have registered complaints about the now heavy burden of negotiating separately with various donors, and meeting different and complicated sets of requirements. This is not to say that Pakistan would welcome the idea of programs being worked out by the donor community. It would prefer to develop plans on its own and work out a consensus with the community as a whole.

Two-Tier Approach in Development Aid

The long-term commitment implicit in the need for continuity places limits on the quantity of assistance offered and militates against expansion of assistance even when circumstances warrant. Pakistan's current situation and its development needs present an opportunity for testing a flexible

two-tier approach to assistance. The first tier would be in the form of (1) sustained long-term assistance for carefully selected projects, such as the "On Farm Water Management" project with which the U.S. was long associated, or (2) assistance to help meet urgent requirements which bear importantly on the development process, such as the fertilizer program. The second tier would consist of additional resources made available when conditions warrant and as the need exists. For this allocation, Pakistan would vie with other foreign aid claimants for a substantial total amount to be programmed strictly on an annual basis. The distinction would need to be made very clear so that Pakistan would build long term projects and maintain an inventory of good but postponable activities, as candidates for second tier aid. This approach may offer a method to respond to short-term fluctuations in availability of funds and pressures of needs without seriously disrupting the development process.

Pakistan's Urgent Needs

Pakistan's problems are both urgent and acute. The country is weighed down by a heavy import bill and a crushing debt service burden, much of it deriving from U.S. development loans. Recent short-term borrowing from the IMF and commercial banks offers only a temporary and potentially costly solution. Moreover, foreign exchange needs will grow as the cost of petroleum imports rises and remittances from abroad, which now meet 60 percent of Pakistan's import bill, level off. Further pressures on the balance of payments are likely to result from import liberalization policies, induced by the recent agreement with the IMF, and the continuing and substantial imports of vegetable oils, for which demand is increasing by 15 percent annually. Maneuverability in allocating domestic fiscal resources is almost equally constricted. For one thing, 85

percent of Pakistan's development budget is committed to local currency financing of on-going donor-assisted projects. For another, action in the areas in which savings seem possible--reduction of food and fertilizer subsidies, closure of unprofitable and inefficient nationalized industries, cuts in defense expenditures--is likely to be minimal at best because of the political and social risks involved and the situation on Pakistan's borders. Assistance to Pakistan, if resumed, must somehow address these immediate needs.

In addition, the population problem is becoming increasingly urgent. Pakistan, conscious of past failures to cope with the population problem, and with growing alarmed, at least at the top level of government, over the implications of an unchecked population growth rate of 3 percent, has devised a new three-year plan, integrating population planning with broad social sector objectives. This depends, in part, for its successful implementation on a heavy input of foreign assistance possibly including financing of local currency costs. It is a program consistent with the current development priorities of Pakistan and the U.S. and one for which U.S. aid could be considered.

Future Assistance

On this matter, determination of a specific figure would be influenced by many factors. It seems clear, however, that if Pakistan's economic development is to be furthered, the assistance offered by the U.S. should be sufficient to encourage and generate meaningful progress toward economic development, not merely serve as "maintenance" aid. Over the longer term, the timely infusion of a "critical mass" of aid could create conditions for self-sustaining development. This, of course, depends on events now unforeseeable--among them, the degree of progress achieved and achievable. For the present,

it is important that U.S. aid, if offered, be of the type and in amounts which can be significant in helping meet Pakistan's perceived needs and priorities.

It is equally important to bear in mind that the IMF loan agreement expires in three years and that the partial relief from the debt service burden that Pakistan now enjoys will end in eighteen months. Pakistan's situation could become desperate in three years' time with a crisis far worse than exists at present unless donors make a concerted effort to assist the GOP toward solutions during this period of temporary respite and afterwards.

CHAPTER II

MACRO PERSPECTIVES ON U.S. ASSISTANCE TO PAKISTAN 1952-1980

Introduction

The United States has almost thirty years experience with foreign aid and there have been a fair number of studies of the aid/development relationship, yet, too little is known about the precise ways in which aid contributes to development.[1] Thus, any attempt to assess the effectiveness of the U.S. bilateral assistance program with Pakistan must confront the thorny conceptual problems surrounding the aid/development nexus.

To begin with, development itself defies easy definition. It is a complex socio-politico-economic process for which we have no wholly adequate theory. This is less of a problem when development is delimited by the term economic growth, but even then the researcher is faced with a range of choices. Should one focus on the macro relationship between aid and growth embodied in the growth-gap models or on the disaggregated structural transformation models of development?[2] And if the latter are chosen, is the analysis limited to changes in economic structure between and within agriculture, industry, and foreign trade or is it broadened to include distributional and social aspects?[3]

Models of the theoretical relationship between macro-growth and aid are the most rigorous but also the most simplistic. They assume that the only objective of assistance is growth; they abstract from the social and political aspects of development; they assume the adoption of the policies necessary to achieve the target rate of growth; and they identify capital as the key constraint to development. Moreover, they ignore the structural transformations economies undergo as they move along the development continuum.[4] There are good reasons for challenging these assumptions and hence for rejecting gap

mode/assessments of aid impact. For example, recent empirical work demonstrates that bilateral donors and recipients use assistance to pursue non-developmental objectives in recipient countries.[5] Furthermore, the somewhat difficult discussions which have characterized donor/recipient relations suggest that it is not easy to identify or to adopt the right policies.[6] Finally, Pakistan's own experience may well refect some of the costs associated with ignoring the political and social aspects of development.

But compared to the structural approaches to development, the macro-gap models require less data while providing a simple, yet powerful linkage between aid and growth. In the simplest models, one can determine a country's need for aid once a target rate of growth, a savings rate, and the capital output ratio are known. By shifting to lower levels of aggregation, as required by the structural transformation models, it becomes necessary to determine the optimum allocation of investment, both between sectors and across projects. The former requires the building of multi-sectoral planning models whose complexity and need for data often overwhelm data availability in most developing countries, while the latter requires an analysis of project choice mechanisms.[7]

Unfortunately, the choice between a macro or a disaggregated approach to aid assessment does not exhaust the possibilities or resolve all problems. There are a wide variety of U.S. aid instruments--from project assistance, to program and sector loans, and PL 480 concessional sales. Both the timing and the impact of aid will vary accordingly. For example, the lag between the disbursement of a commodity loan designed to increase capacity utilization and growth may be very short, whereas there may be a significant lag between aid disbursements and growth from either an institution building or a capital infrastructure project. Furthermore, while it may be easy

to trace the growth effects of some kinds of aid (such as fertilizer loans) it may be difficult or next to impossible to assess others (such as institution building projects).

These problems have led previous researchers of the aid development nexus to adopt one of two approaches. Some have opted for pluralistic approaches to aid assessment. Thus, Jacoby identifies seven criteria of aid evaluation, while Brecher and Abbas propose using four criteria for the evaluation of one form of aid-commodity loans.[8] On the other hand, others have limited their analyses to a description of what particular donors have done in conjunction with a series of conjectures on possible impacts.[9] In an attempt to meet the demand for analytical rigor while minimizing the role of conjecture, this analysis has been structured in the following way:

1. Pakistan's development and U.S. involvement in it have been broken into discrete but overlapping periods. The different periods are chosen to reflect both the changing nature of Pakistan's economic problems, and shifting U.S. assistance strategies.

2. Within each period, the dominant economic problems and the nature, strategy and objectives of U.S. assistance are described. This is followed by an attempt to assess the impact of aid on growth and structural changes within a time frame that is consistent with the expected impact of the aid investment.

3. In a concluding section, an attempt is made to place U.S. assistance to Pakistan in a broader perspective.

These considerations led to the decision to divide Pakistan's development and U.S. aid to Pakistan into four periods as follows:

A. Establishing the pre-conditions for growth: 1947-58

B. The "Take-Off": 1959-1968

C. Disillusionment with an Ideal: 1969-1977

D. The Search for an Identity: 1978-1980

Establishing the Pre-conditions for Growth: 1947-1958

Discussions of the economy during this period have been dominated by three elements: the impact of partition, the foreign trade regime, and the neglect of agriculture.[10] The 1947 partition from British India created serious problems for the new nation of Pakistan. Geographically the country was divided into two wings separated by more than 1,000 miles. The seat of government was located in West Pakistan and came to be dominated by Muslim merchants who had migrated from India. This created tensions between the old landed elite from the Punjab who had opposed partition, the ethnically distinct Bengalis from East Pakistan, and the newly arrived merchants who had successfully engineered independence. As a consequence, Pakistan's political environment was marred by a certain degree of instability. Tensions between Punjabi landowners and the new merchants were a major cause of the rapid turnover of governments between 1953 and 1958, while difficulties between East and West Pakistan ultimately led to the 1971 war and the division of Pakistan into two separate nations.[11]

In addition to internal political instability, the new government inherited a crippled and underdeveloped economy. At the time of partition, the area that became Pakistan had fewer than fifty industrial establishments.[12] Foreign trade was dominated by trade with India, in which Pakistan exported raw materials in exchange for India's manufactured products. Except for a rather well developed irrigation system, this primary products economy possessed a meager infrastructure. Total power generating capacity was approximately 110,000 kw. There were less than 5,000 miles of improved road, and much of it, especially the rail system, was geared to meet the interregional trade between Pakistan and India.[13] To make matters worse the exodus of Hindu professionals--bankers, teachers, and others--deprived Pakistan of a trained labor force on which to found development.

Thus, partition from India and the breakdown of Pakistan's traditional trading pattern forced the government to find new export markets, to search for new suppliers for its manufacturing needs, and to build the infrastructural base for industrial development. Pakistan responded by launching a massive effort to industrialize by processing domestically produced raw materials and by producing those consumer goods, irrespective of costs, which previously had been imported.[14] Buoyed by sterling balances left over from World War II and the Korean War commodity boom, Pakistan was able to pursue industrialization with a liberal trade policy without severe balance of payments effects, despite an overvalued currency. But the collapse of the Korean War commodity boom in 1952 led to a significant decline in export prices and Pakistan faced its first foreign trade crisis. Unfortunately, fears about low price elasticities led her to opt for bureaucratic controls over trade rather than devaluation. This approach was implemented by placing export taxes on raw materials and jute and import quotas on all imports. During this period, it was assumed that development was constrained by both a capital and a foreign exchange shortage. Furthermore, despite a heavy reliance on the private sector, overall development of the economy was placed in government hands. With respect to investment, the government established an investment schedule and those considering capital expansion needed government approval to ensure access to foreign exchange to import both the capital to install capacity and the raw materials and spare parts to utilize it. With respect to imports, control was so complete that the government determined who could import what at what value, in what amounts, and into which geographic region of the country imports could go. Not surprisingly, the pursuit of rapid industrialization discriminated against the agricultural sector. The export taxes on raw cotton and jute in

combination with compulsory purchases of surplus grain at concessionary prices turned the terms of trade against agriculture.[15]

The consequences of these policies, although somewhat surprising, were predictable.[16] The industrial sector, particularly the large-scale sector, grew at annual rates approaching 24 percent from 1949-50 to 1954-55. As a result, industrial output rose from less than seven percent of GNP in 1949-50 to 12 percent in 1959-60). The period also witnessed significant increases in savings rates (from 4.6 percent in 1949-50 to 8.8 percent in 1959-60) and rates of investment (from 4.6 percent in 1949-50 to 11.8 percent in 1959-60). Rapid industrialization also affected the commodity composition of foreign trade. On the import side, manufactured cotton goods declined from 29 percent of imports by value in 1951-52 to less than one percent in 1959-60. On the export side, traditional raw material exports fell from 85 percent of earnings by value to 65 percent, while the exports of processed jute and cotton goods rose from one percent to 14 percent by value. Despite these successes, the economy was not flourishing. The agricultural sector had failed to keep pace with population growth, so that per capita food availabiliity declined. By the late 1950s, the annual growth rate in industry had fallen off drastically (from 24 percent to 9 percent). Furthermore, the effects of population growth and a stagnant agriculture outweighed the effects of rapid industrial growth, so that there was no improvement in income per capita. Finally, the rise in savings rates at a constant income per capita suggested that the income distribution was worsening.

What role did U.S. assistance play in these developments? There are a number of reasons for believing that the answer to that question is less than was hoped for. First, U.S. assistance policy during this period was characterized by a high degree of uncertainty both over how best to use aid to foster development and over whether the U.S. should offer development assistance.

Second, the kind of assistance granted between 1952 and 1958, was such that one could not expect much short run impact. Third, the paucity of knowledge on the U.S. side about how to effect development and about Pakistan's development problems suggests that U.S. aid practitioners did not have a well articulated sense as to what needed to be done. Fourth, this period of development in Pakistan was marred by political instability and was largely unplanned on the Pakistani side. Hence, there was little sense of either long-run problems or how to deal with them effectively.

With respect to U.S. assistance strategy during this period, the basis for a focus on technical assistance was provided by President Truman in his 1949 inaugural address when he stated that,

> ...we must embark on a bold new program for making the benefits of our scientific advances...available for the...growth of the underdeveloped areas. For the first time in history humanity possesses the knowledge and the skill to relieve the sufferings of these people. The United States is preeminent among nations in the development of industrial and scientific techniques. The material resources we can afford to use for the assistance of other people are limited. But our imponderable resources in technical knowledge...are inexhaustible. I believe we should make available to peace loving peoples the benefits of our store of technical knowledge....[17]

But neither Congress nor the Executive remained satisfied with this conception of aid or with U.S. involvement in an aid program. In 1953 President Eisenhower asked for the creation of a special category of assistance for Pakistan and India to:

> promote economic development and...to assist in maintaining economic and political stability.[18]

Yet, despite the progressive introduction of U.S. security considerations into the aid program, both the Randall Commission and the 1953 Mutual Security Act adopted highly negative attitudes toward foreign aid. For example, the Randall Commission stated that:

> Underdeveloped areas are claiming a right to economic aid from the United States...we recognize no such right.[19]

More importantly, the Mutual Security Act of 1953 provided for the termination of the aid program in 24 months.[20] But this rejection of aid as a tool of foreign policy did not last long, and the 83rd Congress explicitly recognized the importance of aid by creating the International Cooperation Administration to administer the bilateral aid program.[21] From this point, foreign aid became a more or less permanent feature of U.S. foreign policy, and disagreements among policy makers shifted to discussion of ways to maximize the contribution of aid to development.

The first such debate began with disenchantment with the technical assistance strategy, and was resolved with the passage of the Mutual Security Act of 1954, which authorized the use of capital assistance

> ...to aid developing countries...to develop their resources and improve their...living conditions.[22]

While the recognition of the importance of capital assistance had been long standing, fears of unlimited requests for costly capital aid tended to delay the development of a capital assistance component to the aid program.[23] Not surprisingly, the relatively high resource costs of capital aid led the U.S. to fund capital projects on a loan basis while it continued to grant-fund technical assistance projects.

As might be expected, the bilateral aid program to Pakistan reflected the evolving nature of U.S. assistance strategy and Pakistan's need. The first technical assistance agreement was signed on February 9, 1951. In that year $450,000 was committed for technical assistance under the 1950 Act for International Development.[24] The first agreement funded a USDA agricultural extension expert and made awards to ninety Pakistanis to train in the U.S. A supplementary Joint Fund Agreement in 1952 brought four additional U.S. experts to advise

industrialists, led to the expansion of four agricultural colleges, and introduced eight mechanical trade schools.[25]

Between 1951 and 1954 the U.S. committed $133.1 million (see Table 1). In addition to the previously mentioned technical assistance projects, the major projects undertaken included acquisition and distribution of fertilizer ($10.5 million) aimed at quick increases in domestic food production to "...prevent recurring political and economic crises" and $88.6 million in wheat loan/grants to relieve famine conditions.[26] Additional funds were provided to improve sanitation conditions in Karachi to relieve the squalid conditions of life for the swelling refugee population ($5.4 million).[27] Thus, of the initial $133.1 million just over 74% was used for disaster relief. Not surprisingly, 85% of these funds were provided on a grant basis. In addition to disaster relief, modest efforts were undertaken to rehabilitate various aspects of the Pakistan economy. The most notable included an omnibus intercollege exchange program ($10.6 million) designed to ease Pakistan "skills shortage", and technical assistance for a ground water survey for locating ground water and assessing its quality ($4.6 million). Starting in 1954, the U.S. began to provide capital assistance to restructure, rehabilitate, and improve Pakistan's physical infrastructure. Not surprisingly, both the size of the program and the grant/loan composition of the program changed. Between 1954 and 1958 commitments grew to $605.4 million (see Table I), while the grant element of total commitments declined from 75 percent to 68 percent.[28] Major capital projects funded included repair of water works ($6.8 million), rehabilitation of the Pakistan railway ($14.7 million), further investments in water sewage disposal in Karachi and Dacca ($4.8 million), and partial funding for the construction of a fertilizer factory ($22.7 million).[29]

TABLE I

U.S. BILATERAL AID COMMITMENT TO PAKISTAN: 1951-1958
(in millions of dollars)

	Project Aid	Commodity Assistance*	PL 480	Total
1951	.4	-0-	-0-	.4
1952	10.65	-0-	-0-	10.65
1953	10.60	-0-	15.0**	25.60
1954	22.7	-0-	73.6**	96.3
1955	31.0	40	38.3	109.30
1956	39.0	67.7	56.0	162.70
1957	34.7	64.0	73.2	171.90
1958	44.2	50.0	62.1	156.30
	193.25	221.7	318.2	733.15

Project Aid % Total	25%	Commodity Aid % Total	30%	Food Aid % of Total	45%

Source: Data from table taken from U.S. Overseas Loans and Grants-Obligations and Loan Authorization, 1978 Breakdowns by project, commodity and food aid were taken from the Mutual Security Program documents prepared yearly.

*From aid documents we were unable to determine what commodities were imported in these years.

**Food aid prior to the passage of PL 480.

In addition to increased funding for infrastructure development, the U.S. provided $221 million in generalized budgetary support and $229.6 million under PL 480. Although we were unable to determine how the former funds were used, it is generally agreed that increased PL 480 assistance made it easier for Pakistan to finance industrialization by ignoring agriculture. In fact, some analysts have stated that Pakistanis inside and outside of government argued that low cost PL 480 food represented the most cost effective means for Pakistan to meet its growing food needs.

Finally, this period also witnessed the zenith of the U.S. technical assistance program. Between 1951 and 1958 the U.S. funded approximately 50 technical assistance projects in the fields of education, agriculture, and industry.[30] Most commonly those projects involved some combination of providing training to Pakistanis, providing Pakistan with U.S. technicians on a short term basis, and financing the importation of commodities to support institutional development. Major efforts included, in addition to the previously mentioned intercollege exchange program, and the ground water survey, projects in medical education, a series of projects to enhance the technical capabilities of the bureaucracy, investments to prepare and train individuals in modern management techniques for use in the private sector, and a series of projects in agricultural research and demonstration.

While we were unable to find programmatic discussions of the nature of U.S. aid objectives in U.S. aid program documents, several aspects of an emerging strategy seem clear. Investments in agricultural research, water, and fertilizer seemed designed to tap the large potential of the Punjab. Investments in infrastructure were aimed at the joint goals of rehabilitation and expansion of a base on which to found future agricultural and industrial growth. Finally, the technical assistance projects

in education, public administration, industry, and agriculture helped ease Pakistan's critical "skills shortages". While the sums involved were in themselves not large (average annual commitments were $91 million and totaled less than two percent of Pakistan's gross domestic products), they were large relative to Pakistan's imports and development expenditures (Table II).

Yet, despite these large relative flows, there are reasons to suspect that their contribution to development during 1951-1958 was not significant. On the U.S. side, there was not a well developed institutional framework for administering the aid program (jurisdiction was spread across the Technical Cooperation Administration, the International Cooperation Administration, and the Mutual Security Administration). Furthermore, U.S. knowledge about how aid contributes to development and of Pakistan's development problems (the first systematic statement of those problems was not published until 1957) was limited.[31] Thirdly, political conditions in Pakistan were unstable and the Pakistanis did not seem committed to development. The savings rate never exceeded five percent and development expenditures were less than four percent of gross domestic product. Thus, although the U.S. financial commitment was relatively large, it was so only in comparison to a small base. Finally, most U.S. investments during this period were either designed for disaster relief rather than development, or they were aimed at impacting on development in the future.

Despite the assessment that U.S. assistance probably impacted minimally on Pakistan's development between 1952 and 1958, it is not suggested that there was no impact. Realized shortcomings in the technical assistance focus of early efforts led ultimately to a capital assistance program in 1954 which was significantly expanded after 1958. There is little doubt that these investments began to bear fruit in the next decade. Furthermore, there seems to be little disagreement with the view

TABLE II

U.S. AID COMMITMENTS TO PAKISTAN: 1951-1958
(as shares (%) of various economic indicators)

U.S. Aid / Total aid	80	percent
U.S. Aid / GOP imports	27	percent
U.S. Aid / GOP development expenditures	38	percent
U.S. Aid / GDP	1.5	percent
Development Expenditures / GDP	4	percent

Source: U.S. aid data taken from estimates compiled from U.S. Overseas Loans and Grants, 1978 and annual Mutual Security Program document, various years. Data on total aid commitments, imports, and development expenditures taken from Twenty-five Years of Statistics in Pakistan: 1947-1972, Karachi, 1972, various pages. Estimates of development expenditures prior to 1955 taken from the First Five-Year Plan: 1955-1960, Pakistan, 1957.

that U.S. PL 480 assistance through 1958 made it easier for the GOP to focus its development efforts on industry at the expense of agriculture. Finally, and perhaps most importantly, experience gained during this period made it possible for future U.S. aid missions to design a more effective aid program in the next decade.

C. The "Take-off": 1959-1968

This decade was one in which the GOP learned how to manage development successfully. During this period, prior investments, particularly in human resource development, began to pay off. The 1958 military coup by Ayub Khan provided the country with a degree of political stability and a commitment to development. A Ford Foundation project to train Pakistanis for planning development led to the nation's first systematic development plan (the First Five-Year Plan: 1955-60) which was published in 1957.[32] More importantly, the new president upgraded the role of the Planning Commission and made it an Advisory Committee to the President. In addition to the investments in human capital, the country's investments in physical infrastructure began to come on stream. By 1964-65, electricity generating capacity had risen from 110,000 kw to 1,435 mgw. The road system had more than doubled. The communication system had been upgraded (the number of telephones had increased from 15,283 in 1947-48 to 138,000). In addition, great strides had been made in rail, seaport, and air development.[33]

The newly trained planners and their Ford Foundation-funded advisors brought to the period a shared view of the necessity of increasing the efficiency of domestic resource use and of integrating foreign capital, particularly foreign aid, into the country's development program. With respect to the industrial sector, concern began to grow that the protective system was stifling development. Evidence was accumulating

which suggested that the system of administrative controls on foreign trade led to excessive stocks, substantial excess capacity, and a freezing of the industrial structure as import licenses were distributed on the basis of pre-existing capacity.[34] But most importantly, some feared that nascent industries had grown to depend on government decisions for their profits. As a consequence, firms had come to direct energies toward finding ways to obtain privileges from government rather than toward innovative activites which would cut costs and make them more competitive internationally. To overcome these difficulties, policies were adopted which emphasized the development of exports to pay for imports, and shifted the control of imports from quotas to a greater reliance on the price mechanism. In 1959, the government adopted the Export Bonus Scheme which increased the foreign exchange earnings for exporters of various products.[35] In 1961 the import licensing system was made less cumbersome by the adoption of automatic licensing, and access to import licenses was expanded with the adoption of the open general licensing system. While there are some doubts about the ultimate trade liberalizing effects of these policy changes, they did expand the list of those eligible to participate in the import system.[36] Finally, in perhaps the most interesting development during this period, the government, in exchange for increased commodity aid from AID and the Pakistan Consortium, established a free list of import items in early 1964 that was expanded to fifty items in late 1964.[37]

With respect to agriculture, the new government took a series of steps to overcome stagnation. In 1959, compulsory procurement of surplus grain at less than market prices was abandoned. The export taxes on raw jute and cotton were reduced, effectively increasing prices to farmers by 25 percent.[38] In January, 1960, rice rationing was abandoned in East Pakistan

and the rice trade was returned to private channels. Though these steps were opposed by some in the civil service who feared the political consequences of rapidly rising food prices, PL 480 wheat imports were skillfully used to stabilize wheat prices.[39] This period also saw an increased allocation of public developmental expenditures to agriculture, an improvement in agriculture's terms of trade, and the turning over of fertilizer distribution to the private sector. With respect to public expenditures, the Second Five-Year Plan called for an increase from 13 percent to 15 percent in agriculture's share.[40] Furthermore, public efforts focused on fertilizer subsidies, investments to control the water supply, and the launching of a series of salinity control and reclamation projects.[41]

While it may be difficult to establish cause and effect relationships between these policy changes and macro-performance, the developmental results were highly promising. GNP, in constant prices, grew at annual rates of 5.2 percent, while major crop output grew at 4.1 percent and large scale industry grew at 6.3 percent.[42] More surprisingly, the domestic savings rate jumped to 10.9 percent and the gross investment rate climbed to 14.2 percent by 1968-69.[43] But most heartening of all, income per capita grew at annual rates of 2.3 percent.[44]

As might be expected, the emergence of a shared consensus on development issues between members of the Pakistani Planning Commission, their Ford-funded foreign advisors, and the donor community created an environment for an expanded foreign aid program. By adopting macro policies with which the donors were in agreement, the Pakistanis gained donor financial support. Thus, it is not surprising that the U.S. bilateral program reached a zenith during this decade. Approximately 60 percent of total U.S. aid commitments were made in this period. The total flow was a little under $3 billion (see Table III).

TABLE III

U.S. BILATERAL AID COMMITMENT TO PAKISTAN: 1959-1968
(in millions of dollars)

	Project Aid	Commodity Aid	PL 480	Total
1959	68.9	95.0	63.7	227.6
1960	129.1	90.0	85.7	284.8
1961	35.0	95.5	35.8	166.3
1962	83.9	157.0	152.4	393.3
1963	85.3	100.8	173.2	359.3
1964	136.2	100.0	155.4	391.6
1965	47.7	140.0	158.4	346.1
1966	7.2	120.0	22.6	149.8
1967	41.6	95.0	93.7	230.3
1968	17.2	115.0	163.0	295.2
	632.1	1,108.3	1,103.3	2,843.7
Project Aid % Total	21%	Commodity Aid as % Total	40%	PL 480 as % of Total 39%	

Source: Total aid and PL 480 aid data taken from U.S. Overseas Grants and Loans, 1958. Data on project and commodity aid constructed from Operations Report, AID, Washington, D.C., various years.

Within the Second Five-Year Plan (1960-1965), the U.S. provided 55 percent of all the aid received by Pakistan covering 35 percent of the government's development expenditures and 45 percent of its import bill (see Table IV).

In addition to the size of the flow, U.S. in-country experience made it possible for AID to analyze Pakistan's problems and develop a strategy for dealing with them. Consequently, AID was able to develop an integrated strategy for dealing with flagging growth in the industrial sector, and for assisting in a large scale effort to restructure rehabilitation and Pakistan's physical infrastructure, while the joint White House/ Department of Interior Panel on Waterlogging and Salinity in West Pakistan provided the basis for the AID strategy in agriculture.[45] By 1962, AID activities in Pakistan were grouped together in a series of "goal plans" (see Table V).

In industry, the U.S. "goal plan" was aimed at enhancing the productivity of industry so as to ameliorate Pakistan's structural balance of payments deficits.[46] The AID Mission argued that development was seriously constrained by a foreign exchange shortage. It appeared that the rapidly growing demand for capital goods, raw materials, and spare parts imports by the industrial sector was systematically outstripping the country's ability to earn foreign exchange. Export earnings in FY 1961 and 1962 covered less than two-thirds of the import bill, and the heavy capital components of the Second Five-Year Plan were expected to push this coverage to 40 percent. Since economic aid could not be expected to cover trade deficits indefinitely, the USAID strategy was designed to enhance the export earnings capacity of the economy so that it could earn sufficient foreign exchange to cover developmental needs.

Assessments of the causes of Pakistan's structural deficits focused on the composition of exports and the low productivity of industry. While rapid industrialization had reduced the

TABLE IV

U.S. AID COMMITMENTS TO PAKISTAN: 1959-1968
(as shares (%) of various economic indicators)

U.S. Aid (1960-65) / GOP Development Expenditures (1960-65)	35	percent
U.S. Aid (1960-65) / Imports (1960-65)	45	percent
U.S. Aid (1960-65) / GDP (1960-65)	55	percent
U.S. Aid (1960-65) / Total Aid (1960-65)	55	percent
U.S. Aid (1959-68) / Total Aid (1959-68)	4.4	percent
U.S. Aid (1959-68) / GOP Development Expenditures (1959-68)	20	percent
GOP Development Expenditures (1959-68) / Total U.S. Aid (1959-68)	60	percent
GOP Development Expenditures (1959-68) / GDP (1959-68	19	percent

Source: U.S. Aid commitments from U.S. Overseas Grants and Loans, 1979 Data on Total Aid, GDP, imports, and development expenditures from Twenty-five Years of Statistics: 1947-1972, Pakistan, 1971.

TABLE V

U.S. AID COMMITMENT TO PAKISTAN: 1959-1968
(in millions of dollars)
In support of

Industry Goal		Agricultural Goal		Infrastructure Goal		Total Non-PL 480 Assistance
Technical Assistance	9.3	Technical Assistance	24.82	Railroads	150.1	
Loans to PICIC	22.0	SCARPS	36.0	Other Transport	12.4	
Commodity Loans	983.0	Fertilizer	125.0	Telecommunicators	4.6	
	1,014.3		185.82	Power	169.3	
					336.4	1,640
Industry Support as % of Total	62%	Agriculture Support as % of Total	11%	Infrastructure Support as % of Total	22%	

Source: Data for Program "Goals" Support taken from "Projects in Pakistan", DS/DIV, AID/W, Oct. 3, 1980 and Country Assistance Program, 1962-63; Data on Non-PL 480 taken from U.S. Overseas Grants and Loans, 1979.

country's dependence on raw material exports, they still constituted 52 percent of export earnings in FY 1962.[47] Widely fluctuating world market prices and a tendency for the terms of trade to deteriorate lent a fundamental instability to dependence on those items. In the face of this problem, the GOP moved vigorously to promote exports of manufactured goods, but efforts seemed contrained by the inefficiency and lack of quality in the manufacturing sector. The AID Mission saw this problem as reflective of several difficulties. First, the import control system, by protecting new industry from foreign competition, created significant inefficiencies. Second, the focus on rapidly developing import substituting consumer goods industries at the expense of intermediate goods and capital goods industries, left the economy overly deperdent on imports to run the industrial sector. Third, the lack of managerial and technical knowledge within the industrial sector meant that almost no one was either cost or quality conscious. The corrective seemed clear. The managerial and technical capacity of the industrialists had to be enhanced if Pakistan was going to be able to increase its export earnings. Inefficiencies in domestic industries could be wrung out of the system by lowering trade barriers. The U.S. proposed increased technical assistance to meet the first problem, and a dose of trade liberalization softened by commodity loans to meet the second.

With respect to technical assistance, the USAID Mission proposed establishing: an industrial technical assistance center for advising, training, and imparting managerial skills necessary to run plants efficiently; an industrial advisory center to render assistance to the country's development banks and undertake industrial preinvestment studies; and an institute for business administration to increase the number of skilled business administrators through graduate education and in-service training. Additionally, the Mission proposed assistance

to the Pakistan Industrial Credit and Investment Corporation. On the import liberalization side, the U.S. agreed to furnish increased commodity assistance to sustain imports of raw materials, spare parts, and capital goods to achieve a fuller utilization of capacity in the industrial sector while at the same time cushioning the negative impact of increased imports on the country's balance of payments.[48]

The U.S. supported its technical assistance program with $9.3 million and it supported PICIC with a series of loans totaling $22 million, but the bulk of its support to the industrial sector went to import financing ($665 million in a series of 10 commodity loan agreements between 1962 and 1968 and a total of $983 million between 1958 and 1968) (see Table 5).

In agriculture, resources were to be concentrated on the development of one million acres in the Indus Plain as the vanguard of a longer range effort to recast the structure and methods of agriculture in West Pakistan.[49] The fundamental problem identified was that of low yields, and this was attributed to waterlogging and salinity, inefficient policies, the low level of technology, the shortage of irrigation water, and the system of land holding. AID's Indus Plain strategy was to attack those problems simultaneously since

> any one if left unattended could frustrate in large measure activities taken in others.[50]

To support this goal AID planned to fund:

1. a series of salinity control and reclamation projects,
2. continuing ground-water surveys, and
3. an agricultural university in West Pakistan which would gear its activities to determining solutions of the problems in the project area.

Additionally, the U.S. was to fund a series of short-term technical experts who would assist the GOP to (1) survey government policies, organization, and administration of agriculture and (2) provide management and training at the provincial level.

In support of its agriculture goal, AID committed $186 million: $25 million for technical assistance, $36 million for the SCARP Program, and $125 million for fertilizer imports (see Table V).

Finally, with respect to physical infrastructure, the USAID Mission recognized that rapidly increasing industrial activity required extensive rehabilitation and expansion of Pakistan's power, transportation, and communications networks. To assist in this process, the U.S. committed $336 million, of which $150 million was used to rehabilitate the rail system and $170 million to expand power capacity (see Table V).

As the foregoing comments suggest, the environment for effective utilization of AID funds between 1958 and 1968, particularly between 1960-1965, was almost ideal. Put the steps from environment to implementation, and ultimately impact, are not straightforward ones. What evidence is there of the actual effectiveness of the AID program? To answer this question is necessary to break the period down into three sub-periods: 1959-60, 1960-65, and 1965-68. In a number of ways the period 1959-60 is like that of the 1952-58 period. U.S. aid administration was still evolving, the Pakistan Consortium had not been created, the Ford project was just beginning to bear fruit, and the analysis of the waterlogging and salinity problem had not been undertaken. The period after 1965 was fraught with other problems. The 1965 war with India led to the cancellation of the sixth and seventh meetings of the Pakistan Consortium and the first termination of the U.S. bilateral aid program. Although the program was shortly revived, U.S. aid never reached pre-war levels, and the gathering storm over the exploitation of East Pakistan by West Pakistan and the emerging critique of the unbalanced pattern of development in West Pakistan increasingly dominated the attention of U.S. aid practitioners.

Within the 1960-65 period a range of evidence suggests effective utilization of aid funds. On the macro gap-model side, in appeared that rising ratios of foreign aid to GNP were going hand in hand with rising domestic savings rates.[51] Not only was this an effective rebuttal to those who were arguing that foreign aid acted as a substitute rather than as an addition to domestic resource mobilization, it appeared that foreign aid might be acting as a catalyst for resource mobilization.

In addition to the positive impact of gap filling aid on domestic savings, economists at the Pakistan Institute of Development Economics developed an interesting theoretical argument for extending commodity aid to Pakistan to increase capacity utilization.[52] The argument was based on a demonstration that an increase in domestic capacity utilization, by effectively lowering the capital output ratio, had the same effect on long-run growth as a rise in the savings rate or a decline in the capital intensity of investment decisions. The argument was developed as a result of accumulating evidence that Pakistani industry was operating at less than 50 percent capacity.[53] Several theories were offered to explain the phenomenon. Some argued that the donor community focus on project aid had the effect of expanding productive capacity without regard to capacity utilization. When this was combined with Pakistan's import licensing control system, which favored capital imports at the expense of raw materials and spare parts, conditions were created which led to the expansion of productive capacity while depriving firms of the raw materials and spare parts to utilize that capacity.

On the basis of these arguments, both the donor community and the Pakistanis came to believe that the composition of aid should be shifted from project aid to program or commodity aid and that such aid should be extended for raw materials and

spare parts imports. But the donor community was not willing to extend substantial commodity aid without structural reform on the part of Pakistan, lest Pakistan become perpetually dependent on aid to run its industrial system.[55] Hence the commodity aid was profferred in exchange for trade liberalization designed to correct inefficiencies in the industrial system. As such, objectives of the commodity aid program included impacting positively on capacity utilization and growth and, secondly, bringing about a structural adjustment in the industrial sector.

How sucessful was AID and the donor community in achieving its goals? Again, although the evidence is somewhat conflicting, it points in the direction that the commodity aid program, prior to the cutoff after the 1965 war, was achieving its goals. For example, a study of Pakistani industry, based on estimates of import intensity compiled from an inter-industry flow table of the Pakistan economy, demonstrated that 86 percent of the high import intensive industries were operating at less than 60 percent of capacity while only 11 percent of the low import intensity industries were operating at less than 60 percent of capacity prior to the commodity loan programs.[55] Additionally, an AID survey of 19 steel-using firms in the Karachi area between January and December, 1964 found only one firm whose capacity utilization had not changed as a consequence of the greater availability of raw steel imports. Another AID survey covering 65 industrial plants, each importing over 90 percent of its raw materials, reported that between December, 1963 and March, 1965, capacity utilization had increased from 50 percent to a little over 80 percent.[56] In short, the evidence suggests, at least with respect to capacity utilization, that expanded commodity aid had both a quick and significant impact.

But what about the structural adjustment effect of the commodity aid program? The effectiveness of commodity aid in

promoting structural objectives is dependent on the nature of the problem. Both Power and Radhu argued that Pakistan's import control system discriminated against the establishment of intermediate goods and capital goods industries.[57] For example, Radhu demonstrated that tariff rates on capital goods were significantly less than those on consumption goods. The higher rates on the latter and lower rates on the former presumably drove prices and hence profits up in the latter and thus diverted investment into high profit rate consumer goods industries at the expense of capital and intermediate goods industries. To the extent that this mechanism was at work, trade liberlization which further lowered the price of intermediate and capital goods relative to consumption goods was likely to provide additional disincentives for the establishment of capital goods and intermediate goods industries. This might tend to reinforce the development of high import intensive industries and hence increase Pakistan's dependence on imports, at least until trade liberalization was extended to consumer goods. In this sense, the policy objective of increased capacity utilization might conflict with the structural adjustment objective. Furthermore, the long-run success of the program was dependent on extending liberalization to those imports which directly competed with domestically produced goods. If this failed, the free importation of capital and intermediate goods for use by consumer goods industries would only serve to increase profits in those industries without necessarily increasing the efficiency of domestic production.

Although Radhu's analysis of the bias of policy against import substitution in capital and intermediate goods industries was based on an analysis of the structure of Pakistan's tariff system, Powers' "frustrated take-off" hypothesis was not based on an empirical analysis of the impact of the incentive structure on industrial structure. Furthermore, Radhu

agreed that the effect of other variables, most particularly the licensing system, might vitiate his findings. In 1967 Lewis and Soligo undertook a more in-depth analysis of the Radhu/Power thesis.[58] Their research domonstrated that over the period 1954-64 the intermediate and capital goods industries were growing faster than consumer goods industries. Furthermore, in the period prior to 1959-60, growth in those industries was largely due to import substitution, but after that, given the larger share of imports in total supply, growth in capital goods industries was based on an expansion of domestic demand. In short, demand was growing at such a pace that the increased imports of capital and intermediate goods was not disadvantaging this sector of the economy. Thus, while it may be the case that the import structure was biased against intermediate and capital goods, this did not inhibit growth in these sectors.

One final piece of evidence tends to diminish the possible conflict between the capacity utilization and the structural adjustment objectives of the commodity assistance program. The Power/Radhu thesis rested on the assumption that the low cost intermediate and capital goods imports were used by the highly protected import-substituting consumer goods industry. But as analysts of Pakistan know, the latter industries were established first because of their low import intensity. In fact, this phase of Pakistan's industrialization was based on saving foreign exchange. Nevertheless, despite this attempt to minimize the foreign exchange costs in investment decisions, one still might argue that the lack of a capital goods and a spare parts industry might leave consumer industries highly dependent on foreign trade. In any event, a definitive answer to the issue depends on identifying the import intensity of Pakistan's industries. Brecher and Abbas, in their assessment of the relationship between import intensity and capacity utilization,

have ranked 38 industries on the basis of import intensity. An examination of their data shows that most import intensive industries were in the capital and intermediate goods sectors (basic metals, plastic goods, paints and varnishes, rubber and rubber products, electrical goods, transport equipment, and non-electrical machinery) while the least import intensive industries produced consumer goods (jute textiles, footwear, knitting, and sugar refining).[59] Given the greater import intensity of the capital and intermediate goods industries, not only must the Power/Radhu thesis fall, but the increased availability of lower cost raw materials, spare parts, and capital goods financed by the commodity assistance program can be seen as providing additional stimulus to the development of capital goods industries. In this sense, the advantage offered consumer goods industries due to import quotas and high tariff rates were at least partially offset by the low cost of imports to producers in capital goods industries. In short, it appears that no conflict existed between the capacity utilization and the structural adjustment goals of the Pakistan Consortium-designed commodity assistance program.

While the available evidence indicates that the aid community was on the right track in its attempt to enhance the growth and increase the efficiency of Pakistan's industry, several qualifying comments are in order. First, AID expected that, over time, Pakistan would be able to cover its import bill with increased export earnings. But if liberalization were followed by only small increases in export earnings, then no matter how ideal the internal pricing policies the benefits might not outweigh the social and political costs involved. Historically, Pakistan and many other developing countries have adopted pessimistic views of export possibilities. They seem to think that attempts to increase exports of primary products or of those manufactures in which developing countries have a

comparative advantage would be frustrated by restrictions in the markets of developed countries. Furthermore, increased dependence on developed country markets might make the developing economy more dependent on the level of economic activity in the developed world. In this way recessions in the developed world might significantly reduce export earnings. While the evidence on this score tends to discount this pessimistic view, it might, nevertheless, have been the case that Pakistan was unable to reap significant gains from liberalization. Unfortunately, the commodity aid/liberation program was not in effect long enough to know whether it would have succeeded.

The process begun in 1962 through a series of commodity loans ended with the 1965 war with India, which led to a postponement of the sixth and seventh meetings of the Consortium and to a reduction in new commitments from the U.S. Although U.S. aid was quickly resumed, other issues (most notably the intensifying debate between East and West Pakistan and the discussions about the structure of growth in West Pakistan) came to dominate the attention of AID programmers. With the rapid decline of Consortium aid after 1965 and the felt need by Pakistan to increase defense expenditures, the import liberalization program was shelved as Pakistan resurrected elements of its old trade system to protect its balance of payments. Although there is some evidence which suggests that the import liberalization program did stimulate the development of a domestic tubewell manufacturing industry, the impact of U.S. AID commodity assistance on capacity utilization, growth and structural adjustment was probably short lived.[60] To the degree that the short-lived commodity assistance program did not achieve its goals, it may have left Pakistan with little more than a larger debt service problem. As such, this case may represent an all too vivid picture of the worst consequences, for recipient countries, of relying on foreign aid to finance

development, as U.S. displeasure with Pakistan over the 1965 war with India played an important role in upsetting a well-designed program to enhance the long growth and competitiveness of the Pakistan economy.

Unlike AID's commodity assistance to the industrial sector, its area development scheme for agriculture was not well supported by the Government of Pakistan. As mentioned earlier, AID's Indus plain plan for agriculture was an area development approach which had its origins in a White House initiated study, (the Revelle Report). Despite the high level status of the Revelle Committee and its links to Presidents Kennedy and Ayub, many Pakistani observers and officials criticized its conceptual structure, its technical analysis, and its organizational logic.[61]

As far as the Government of West Pakistan was concerned, the report was based on a fallacious understanding of the problem.[62] As the Pakistani critics viewed matters, the report rested on the notion that agriculture in West Pakistan was tradition-bound and that, as a consequence, monetary incentives might not be sufficient to elicit changes in agricultural practices. By assuming a limited scope for private initiative, the Revelle Committee argued that a coordinated effort by government concentrated in a succession of limited project areas was necessary to bring about a technological revolution in agriculture. By citing the rapid development of the use of private tubewells in the Punjab, the GOP argued that agriculture in West Pakistan was anything but tradition-bound. The problem, as they saw it, was not the unwillingness of farmers to adopt new techniques, but rather the generalized unavailability of those inputs (tubewells, fertilizer, seeds) necessary to significantly increase agricultural output. Given the shortage of the new agricultural inputs, the GOP argued that the solution posed in the Revelle Report (and adopted by AID) was not

the best means for increasing agricultural output. Additionally, they viewed the extent of concentration as politically difficult to achieve. The Revelle Report envisioned a substantial diversion of scarce inputs, especially fertilizer, to the project areas. For example, in the 1963-64 crop season the SCARP I project area used only 7 percent of its targeted nitrogen requirements, but this was 25 percent of the total nitrogen based fertilizer available in West Pakistan.[62] The Pakistanis argued that it would be difficult to maintain this degree of concentration, let alone increase it. Furthermore, the Pakistanis contended that the Revelle Report acknowledged the government's limited administrative and managerial skills, yet proposed that these limited skills be concentrated on integrating activities across government functions. This was viewed as inefficient. In its place, the GOP urged that scarce governmental capabilities be used not for such administratively intensive activities, but rather to increase the total supply of agricultural inputs which could be provided to farmers at reasonable prices.[64] Such an approach, they argued, would minimize the use of scarce government talent by maximizing the role of private initiative.

In addition to organizational and conceptual differences, the Pakistanis challenged the Revelle Report on technical and economic grounds. Mohammad and Beringer argued that the report was technically flawed with respect to assumptions about recovery of seepage, achievable rates of mining with underground water and the non-saline quality of underground water, and in failing to consider the sodium content as well as the salt content of ground water.[65] The assumptions imparted an unwarranted optimistic bias to the Revelle Committee's estimates of benefits, while non-consideration of sodium/salt content led them to fail to recognize that deep open drains were preferable to tubewells for purifying irrigation water.[66] Finally, comparisons with benefits and costs of the public versus the private

tubewell program convinced many Pakistanis that the public tubewells were between three and four times more costly than private tubewells.[67] Furthermore, the latter were produced locally, while the former had a large component of imports which proved to be a drain on Pakistan's foreign exchange. On the benefit side, the value of crops in private tubewell areas grew by more than 100 percent compared to only 40 percent in the public tubewell area (SCARP I).[68]

While subsequent analysis suggests that some of the criticisms of the Revelle Report were overdrawn, one needs to ask why the Report elicited such a negative response from the GOP, and why in the face of that criticism AID decided to base its agricultural strategy on it.[69] Although one should not underestimate the impact of the demonstrated cost effectiveness of the private tubewell program on the attitudes of the Pakistanis toward the Revelle approach, much of the opposition to the Revelle program seems related to political and organizational difficulties. Given the extreme shortage of the new agricultural inputs (fertilizer, seeds, pesticides) within Pakistan, the diversion of those inputs to the project areas called for in the Report was probably politically impossible to carry out. Additionally, the GOP was organized along functional lines, and the reorganization along the area lines suggested by the Report was difficult to implement. The Report called for the creation of a board to oversee the SCARP program, and the appointment of a project director for each project, with the staff and authority to obtain the cooperation necessary to achieve results. Unfortunately, members of the overseeing board, as heads of existing line agencies, never developed the participatory interest necessary to assure project success, and project directors were never granted sufficient authority to achieve desired cooperation.[70] As a result, the program

remained saddled with the constant need to garner the support and involvement of line agencies in order to obtain the inputs essential for success.

In the face of these political and organizational difficulties, why did AID seek to base its strategy on an area focus? While it is difficult to provide a definitive answer to this question, it appears that the outcome reflected the subtle pressures associated with the high political visibility attached to the Revelle Committee. The Committee was the outgrowth of a president to president exchange, and both presidents had vested substantial interests in the Committee. On the Pakistani side, President Ayub was convinced of the importance of solving the waterlogging and salinity problem and, after having requested funds from the Pakistan Consortium to deal with the problem and being turned down, he sought and received U.S. assistance. On the U.S. side, President Kennedy used the waterlogging and salinity issue to divert Ayub's attention away from the Kashmir problem and to minimize Soviet influence.[71] As a consequence, representatives from neither country were in a position to reject the Report. So, despite opposition, the Pakistanis carried out some of the Report's recommendations, while the AID Mission seemingly felt obligated to base its assistance strategy on those recommendations.

But this is not to suggest that the Revelle Report and the AID strategy were without benefit. Results accumulated from SCARP I as of September 1963 revealed that the water table had fallen seven feet, the area crop had increased by 25,000 acres, and the value of crops had increased by 40 percent.[72] Perhaps more importantly, the program seems to have played some role in mobilizing the GOP to deal more effectively with lagging agricultural productivity. As at least one AID official stated at the time, the public tubewell program stimulated the Department of Agriculture into direct competition with it and may have acted as a catalyst to private tubewell development.[73]

In addition to funding a series of projects in support of the agricultural area development scheme, the U.S. committed substantial PL 480 commodity support ($1.1 billion) between 1959 and 1968. Interestingly enough, unlike earlier PL 480 shipments, which must share part of the blame for the agricultural stagnation of the 1950s, shipments after 1958 made it possible for the GOP to introduce a number of measures which set the stage for a substantial increase in agricultural production during the 1960s.[74] Most importantly, the freeing of the wheat trade in 1960 would not have been possible without PL 480, which was skillfully used to stabilize wheat prices at politically acceptable levels.[75] Thus it may well be that PL 480 made a greater contribution to agricultural growth in the 1960s than AID's investments in support of the SCARP program.

Finally, some mention needs to be made of the U.S. technical assistance during this period, as well as of its assistance to infrastructure development. Unfortunately the large number of technical assistance projects, their diversity, and the paucity of information on them made it impossible to rigorously assess their impact on development.[76] Despite this, impressionistic evidence suggests that they may have played a significant role. For one, almost everyone interviewed in Pakistan felt that the TA program may have been the most important element of U.S. assistance. Second, many of the people who talked with the team were either direct beneficiaries or knew someone who was a direct beneficiary. Third, at least four institutions which the U.S. supported--the West Pakistan Water and Power Development Authority, the Agricultural University at Faisalabad, the Pakistan Industrial Credit and Investment Corporation and the Industrial Advisory Centre--appear to have achieved a degree of self-sustaining prominence in Pakistan.[77]

This is not to imply that all aspects of the technical assistance program were successful. Efforts to modernize the public administration system, for example, seem to have failed.[78] Although most AID trainees have remained in Pakistan, many highly-qualified specialists trained under other, non-U.S. programs seem to have left Pakistan. But it does appear that the U.S. technical assistance program enjoyed a degree of success that deserves more searching analysis, and AID could well consider a longer range study to assess the importance of the program in Pakinstan's development.

Time constraints also made it impossible to make any assessment of the impact of U.S. assistance on infrastructure development or on growth. There is some evidence that it may have played an important role. For example, visible evidence resulting from travel in Punjab and Sind offers strong testimony to the extensive nature of Pakistan's infrastructural development. More specifically, it is doubtful that the breakthrough in agriculture which occurred during the second and third plan periods could have occurred without the massive investments in power and water. Likewise it is doubtful that the commodity assistance program could have spurred the development of a domestic tubewell manufacturing industry without the expansion of the power generating and distribution systems which took place early in this period. Unfortunately, AID's interventions in infrastructure development, like its technical assistance investments, remain an untold story. But, if those investments had impacts similar to those they seem to have had on the development of a small scale labor intensive domestic tubewell manufacturing industry, it could well suggest that the current AID predilection not to invest in infrastructure development, because of the presumed lack of equity efforts, is misplaced.

In sum, the U.S. aid program to Pakistan during this period produced mixed results. With the ascension to power of a

group of Western trained technocrats committed to development, the environment was created for an expanded aid program. The U.S. responded with gradual but substantial year-to-year increases in assistance. Between 1958 and 1964 annual non-PL 480 assistance grew from just under $100 million to approximately $250 million (see Table III). Total assistance was more than four times higher than in the previous decade. Besides PL 480 sales which played an important role in agricultural growth, the bulk of this aid was used to finance commodity imports for the industrial sector, to support an integrated area development strategy in agriculture, and to rehabilitate and expand Pakistan's infrastructure. The commodity import program was well designed and it began to produce both growth and structural transformation effects, but unfortunate political developments led the U.S. to significantly reduce support. With the reduction in support, both the growth and structural effects disappeared, leaving Pakistan with little more than a larger foreign debt. Because of U.S./Pakistani disagreements over organizational aspects of the SCARP program, AID's efforts in this area were less than successful. The expected organizational changes were never fully implemented. After financing three SCARP projects, AID committed itself to a fourth in 1968, but subsequently de-obligated it. This de-obligation, in combination with AID's support for extensive expansion of various types of agricultural inputs in the early 1970s, is reflective of the disappointing results of this effort.[79] But this may have had more to do with the high political visibility of the Revelle Report in each country than with poor AID planning. Finally, while the lack of time and the unavailability of adequate documentation made it difficult to assess the impact of AID's technical assistance and infrastructure investments, impressionistic evidence suggests that aspects of both were quite helpful. But because this study could not make a rigorous assessment of

those efforts, AID should consider funding more extensive examinations of their impact.

Disillusionment with an Ideal: 1968-77

Despite the apparently healthly and rapid growth of the economy throughout the 1960s, cracks in the edifice began to appear as early as 1965. The 1965 war with India led to a significant reduction in foreign aid commitments and to a return to bureaucratic controls on foreign trade. The war also precipitated an increase in defense expenditures which further reduced the resources available for development. Not surprisingly, both the gross investment rate and the import growth rate fell dramatically.[80] Moreover, uncertainty seemed to have precipitated a decline in private investment and a slow down in the growth rate in industry.

Unfortunately, the impact of the war with India and the decline in the growth rate were followed by the emergence of a sharply critical attack on the decade's economic accomplishments. A small but growing body of evidence supported by public and private perception seemed to indicate that Pakistan's growth had generated significant inequalities. Some argued that West Pakistan was "exploiting" East Pakistan by utilizing the East's foreign exchange earnings to finance industrial development in the West. This perception was buttressed by evidence which suggested that a disproportionate share of public development expenditures was made in West Pakistan and by evidence that the income gap between the two wings was widening.[81] Furthermore, the regional disparity issue was supplemented by a growing concern that the benefits of development in West Pakistan had fallen to a select few.[82] While more recent evidence has cast some doubt on the thesis that income inequality increased during this period, widespread perceptions at the time shook the confidence of those responsible for planning

development.[83] More importantly, it provided others with a ready-made political weapon with which to challenge the status quo. The results of that challenge are now history. East Pakistan went its independent way, and Bhutto was able to wrest control of what is now Pakistan away from those responsible for managing the second development decade.

While the definitive analysis of the Bhutto period has yet to be provided, it is clear that it was a difficult time politically and economically. Internally, the new regime faced the task of broadening the base of participation in social, political, and economic developments. To meet these goals the government committed itself to revising the health care system, improving educational opportunities, enhancing the productivity of small farmers, and using the power of government to establish greater control over private sector activities to restrain the amassing of wealth by a few.[84] Unfortunately these efforts were constrained by severe shortages in resource availability. Aid commitments from the Pakistan Consortium declined from $400 million in FY 1968-69 to $52 million in FY 1971-72, and although commitments were subsequently increased, accelerating inflation reduced the real resource transfer.[85] Additionally, the government was faced with redirecting Pakistan's foreign trade after the split with the East, and with coping with the balance of payments consequences of a world recession and OPEC's oil price policies. Pressed by the need to satisfy his constituency and by generalized resource scarcity, Bhutto adopted a number of policies, from the nationalization of 31 firms in 10 basic industries and the vegetable ghee industry to labor reform, which bloated industrial employment, and provided urban labor with greater economic security. These policies prompted capital flight and dampened private investment, pushing it to an all time low of 4.5 percent in 1974.[86] Additionally, at least through 1973-74, low output prices for food

crops relative to fertilizer prices acted to reduce the benefit cost ratio associated with increased use. Not surprisingly, GDP at constant factor cost grew by only four percent per year between 1972 and 1977 while population seemed to be growing at around three percent per annum.[87] Thus, the period witnessed little improvement in income per capita, slow growth in agriculture through 1974-75 and in industry after 1974-75, a deteriorating balance of payments, and a growing short-term debt.

Interestingly enough, AID's response to these developments was quite limited. Despite the growing criticism within Pakistan of its pattern of development, between 1965 and 1968 AID continued the assistance strategy developed in 1962-63, albeit at a reduced level (see Tables III and VI. Of the non-PL 480 assistance, 77 percent went for five commodity loans to support the industrial sector, 2.5 percent was allocated to infrastructure, and 10.5 percent was used to support the SCARP program (see Table V).

After 1968, the AID Mission responded to growing political tensions by attempting to establish a larger effort in East Pakistan and by preparing a series of papers aimed at broadening participation in the industrial system. But neither effort bore much fruit. As early as 1969 Mission industrial analysts argued that the private sector was on trial and that unless some mechanism was created for limiting concentration,

> "the pressure for some sort of nationalization will become harder to resist."[88]

In addition to proposing the need to facilitate the entry of newcomers in industry and encourage greater participation in capital markets, AID analysts argued that monopoly practices had to be limited and that the government needed to implement a fair labor policy. To deal with these problems, they proposed offering technical assistance to help the GOP establish ways to limit economic concentration and to reform banking as

TABLE VI

U.S. BILATERAL AID COMMITMENTS TO PAKISTAN
1966-1968
(in millions, excluding PL 480)

	Cumulative Total (1966-68)	As % Total Non-PL 480 Aid
Commodity loans for individual sector	306.3	86.6 percent
Power development	10.3	2.9 percent
Agricultural development including fertilizer imports	37.0	10.5 percent
Total	353.6	100 percent

Source: Data on commodity loans taken from Operations Reports 1966, 1967, 1968; project aid data from "Project in Pakistan", DS/DIU, AID Washington, Oct. 3, 1980. Total aid (non-PL 480) taken from U.S. Overseas Grants and Loans, 1979 adjusted for compatibility with annual program documents.

TABLE VII

U.S. BILATERAL AID COMMITMENT TO PAKISTAN: 1969-1977
(in millions of dollars)

	Project Aid	Commodity Aid	PL 480	Total
1969	12.7	91.0	7.7	111.4
1970	20.7	103.0	86.1	209.8
1971	7.1	-0-	100.8	107.9
1972	2.4	60.2	102.7	165.3
1973	12.8	83.6	81.5	177.9
1974	17.4	43.0	42.5	102.9
1975	96.0	-0-	84.9	180.9
1976	42.9	65.0	130.0	237.9
1977	21.7	25.0	37.2	83.9
	233.7	470.8	673.4	1,377.9

Project Aid as % of Total 1969-1977	17%	Commodity Aid as % Total	34%	PL 480 as % of Total	49%
1969-1972	9%		30%		61%
1973-1977	25%		27%		48%

Source: Data on Total aid and PL 480 aid taken from U.S. Overseas Grants and Loans, 1979. Totals may differ due to exclusion of capitalized interest on prior year loans. Data on project and commodity aid through 1973 taken from annual AID published Operations Reports. Operations Reports were not published after 1973 so that subsequent year breakdowns into project and commodity aid were based on end of fiscal year Loan Activity Reports prepared by Loan Division Office of Financial Management, AID.

well as securities and exchange practices.[89] No action was ever taken on these recommendations.[90] Similarly, the effort to establish a greater presence in East Pakistan met with little success. Between 1969 and 1972 the U.S. limited its new efforts in Pakistan to several technical assistance projects and three commodity loans.[91] Of the former, only two, both in agricultural research, were limited to East Pakistan. As a result of these failures, non-PL 480 assistance to Pakistan declined between 1969 and 1972 reaching an all time low of $7.1 million in 1971 (see Table VII). Thus not only was the U.S. unable to respond productively to the growing tensions, but in reducing aid commitments the U.S. contributed to the economic decline by making it more difficult for the government to respond to its problems in a productive way. Hence, it is not surprising that both the growth rate and the investment rate declined as foreign aid commitments fell from 6.6 percent of GNP in 1965-1966 to one percent in 1971-72.[92]

In addition to this largely negative response, one is led to wonder whether AID's emphasis on macro growth objectives through much of the 1960s did not unwittingly contribute to the political difficulties of the 1970s. As early as 1962, AID programmers seemed acutely aware of the potentially explosive nature of the socio-political structure of Pakistan. In an in-depth assessment of the social trends attending the rapid grow growth in the industrial sector through the 1950s, some analysts stated:

> It is doubtful that life is improving for the average man, what data is (sic) available do not indicate any trickle down effects and whether this will happen is an important question.[93]

They argued that Pakistan's leadership groups were a politically unresponsive elite which worked to preserve its status, superiority, and income. At base, AID argued that the fundamental problem facing Pakistan was that although

> ...these powerful groups control the masses they seem little influenced by them...(as such)

> ...Pakistan's major social task in the balance of this decade must be the liberalization of the power groups....[94]

Despite this analysis little adjustment was made in program focus. Furthermore, by supporting a macro growth policy aimed at channeling increases in income into the hands of those groups with higher propensities to save, at least tacit support was lent to the GOP's neglect of growing social, political, and economic inequities.[95] As such it seems that more attention was paid to stimulating growth than to alleviating social/ political tensions as long as the regime in power was capable of providing a stable framework for successful development management.

Following the 1971 war, the USAID Mission completed preparation for resumption of the bilateral program in FY 1973. Because of uncertainties surrounding the new government's priorities, the Mission described its FY 1973 budget request in "transitional" terms. The Mission supported the GOP's request for debt relief, commodity loans, and an expanded PL 480 program.[96] In the interim, attention was focused on developing a new assistance strategy. Ultimately, that strategy came to be heavily influenced by two developments. Within AID and the U.S. development community, disenchantment was growing with the apparent failure of macro growth to alleviate the most abject conditions of poverty in developing countries. This led to a re-examination of existing models of development and of foreign assistance strategies. The outcome of this process was the Foreign Assistance Act of 1973, which stressed the pursuit of growth with equity to meet basic human needs.[97] Simultaneously, as mentioned earlier, the newly elected government in Pakistan began placing greater emphasis on social and economic equity. As Burki argued, the new government was elected as a result of its ability to mobilize those social groups which were dissatisfied with the status quo.[98] Having made promises to curb the excesses of the previous pattern of development, Bhutto

committed this government to redressing existing social, political, and economic inequities. The apparent coincidence between AID's new assistance strategy and Pakistan's priorities led the Mission to support relevant efforts in agriculture, health, and family planning (see Table VIII).

In agriculture, U.S. efforts were focused on increasing the supply of agricultural inputs. During 1973-75, the GOP with AID assistance prepared a fertilizer strategy.[99] Elements of that strategy included: setting targets for a rapid increase in fertilizer use, construction of fertilizer plants to meet projected demand, and provisions for donor assistance to meet the gap between projected demand and domestic production. In support of this goal, AID agreed to finance research to identify constraints in fertilizer use, to provide funds to finance fertilizer imports, and to financially assist GOP efforts to expand domestic fertilizer production capacity. U.S. financial support for this undertaking played a significant role in getting the rest of the donor community to support the effort. As a consequence, fertilizer consumption grew at annual rates of 100,000 nutrient tons between 1973 and 1980, and was the most important source of growth in wheat production after 1973-74. In addition to supporting Pakistan's fertilizer strategy, an AID-funded research project on water management provided the basis for a small-scale farmer based effort to reduce water losses in Pakistan's 540,000 water courses. As a result of activities undertaken at the Mona research station in Punjab, which determined that on average 40 percent of Pakistan's irrigation water was lost in the water courses, AID financed an effort to reduce those losses. Although that program has proved to be too costly to replicate nationally and allegedly too difficult to implement, like AID support for the GOP's fertilizer strategy it seems to have galvanized both the GOP and the donor community into further effort.[100]

TABLE VIII

U.S. BILATERAL AID COMMITMENTS TO PAKISTAN IN SUPPORT OF THE GROWTH WITH EQUIY STRATEGY: 1973-1977 (non-PL 480 assistance in millions of dollars)

Aid to:	
Agriculture	
Fertilizer imports	206.6
Fertilizer plant	40.0
Water management	10.3
Health	
Malaria control	24.0
Family planning	18.6
Rural health	8.5
Total	308.0

Source: "Projects in Pakistan", DS/DIU, AID/W, Oct. 3, 1980.

While it may be too early to assess the ultimate impact of these investments, they have generated significant interest and enthusiasm in both the GOP and the donor community. Furthermore, in addition to the expected impact on agricultural growth, those investments have the potential to significantly contribute to equity goals. Since both water and fertilizer are not subject to the indivisibilities of other productivity-increasing investments in agriculture, such as tractors, they have the potential to increase the productivity and income of poorer groups. But as evidence from other areas attests, the ultimate impact may be dependent on credit, distribution, and land tenure arrangements.[101] Thus, although the potential is there, there are not sufficient grounds to assume equity effects, and further study is needed to assess the distributional consequences of AID's recent investments in water and fertilizer in Pakistan.

Unlike the investments in agriculture, those in health seem to have fared less well.[102] A review of Pakistan's Expanded Population Program found it to be severely handicapped and as a result AID has not continued to offer support for family planning despite the overwhelming need to curb population growth rates.[103] Similarly, despite a rapid increase in funding for malaria control following the 1973 floods, the malaria control program still faces procedural delays, severe technical problems, and organizational difficulties. Finally, the AID-funded rural health project is beset by difficulties associated with getting physicians to permit trained paramedics to see and diagnose patient problems, as well as with attracting both physicians and qualified women to staff the basic health units in rural areas.

Although a variety of factors undoubtedly affect the differential success of investments in agriculture and the social sector, it is difficult to ignore the possible impact of the

differences in degree of commitment to these efforts by the government. For example, the adoption of an extensive strategy for increasing the supply of agricultural inputs is consistent with the GOP's conception of the most effective way to increase agricultural productivity. At least since the early 1960s, GOP officials have been arguing that low agricultural productivity is largely due to an inadequate supply of inputs. The inputs strategy has the further advantage of directly increasing the growth rate and, as such, is consistent with the expressed sentiment in Pakistan that the quickest way to improve basic human needs of the poor is through the trickle down effects of rapid growth. On the other hand, there is ample evidence to testify to the government's lack of interest in social sector investments. AID's own assessment of Pakistan's commitment and performance in the social sector demonstrates that she fares poorly in comparison with other countries at a similar stage of development.[104] Furthermore, at least one recent analyst has argued that policy-makers in Pakistan have not yet

> ...been convinced that a healthy nation is one of the most valuable capital assets a country can have.[105]

Finally, a number of GOP officials interviewed during October and November, 1980 were quite frank in expressing their disenchantment with the pressure they were receiving from the donor community to increase resource allocations to what they viewed as non-income producing investments.

Thus AID's efforts between 1969 and 1977 yielded mixed results. The rapid growth in political tensions after 1965 was accompanied by the systematic reduction of new U.S. aid commitments. This exacerbated economic difficulties, as AID commitments fell from 6.6 percent of GNP in 1965-66 to one percent in 1971-72, making it more difficult for the government to respond to the tensions in a productive way. It is not suggested that the difficulties between East and West Pakistan could have

been alleviated. But it should have been possible to restructure the industrial system in ways other than those adopted by the Bhutto government. There was ample warning as early as 1968 that pressures for nationalization would grow unless mechanisms were created for broadening the base of participation in the industrial system. Furthermore, AID had developed a series of proposals for alleviating these tensions. Unfortunately, the U.S. not only did not support these measures, but it systematically reduced new commitments to West Pakistan between 1969 and 1972 and deprived the GOP of both a strategy and the resources to resolve these difficulties in a more productive way. With the return of a certain degree of domestic tranquility after 1972, the U.S. resumed its bilateral program in FY 1973. Efforts undertaken since then have met with varying degrees of success. Those in agriculture which have received significant support from the GOP have been quite productive, while those in the social sector which have been less well supported have fared poorly.

The Search for an Identity: 1978-1980

With the return of the military and the technocrats to power following the overthrow of Bhutto in 1977, Pakistan has again turned its focus on macro growth. Persons interviewed in Pakistan seemed to agree that Bhutto's failure on the economic front played an important role in his downfall and that that lesson has not been lost on the current government. Although it remains to be seen how this recognition will be transformed into coherent policy and what the equity impacts of that policy will be, a number of steps have been taken.[106] In agriculture, output prices have been increased, export duties and fertilizer subsidies have been reduced, and positive benefit cost ratios associated with increased use have been realized. In industry, the government has begun to alter the balance between the public and the private sector. Areas open to the private

sector have been widened, the small-unit agro-processing industry has been de-nationalized, and tax holidays, concessional interest rates, and direct cash rebates have been granted to promote output, export, and investment. Finally, the administrative control of imports has been simplified.[107]

This return to normalcy has seemingly produced encouraging results. GDP at factor cost grew by 6.96 percent in 1978 and 5.9 percent in 1979. Between 1977 and 1979 agriculture and industry grew at rates comparable to those of the 1960s (3.4 percent and 7 percent annual growth rates). Even more encouraging, exports grew rapidly (11 percent in 1978 and 20 percent in 1979) with nearly 85 percent of the increase concentrated in manufactures and semi-manufactures.[108]

Despite those improvements in performance, there is some concern that they are not sustainable.[109] For one, the growth of exports was more than offset by the growth of imports and, if worker's remittance had not continued their rapid growth, the current account deficit would have risen from six percent of GNP in 1974 to ten percent in 1979.[110] Unfortunately, it now appears that the rate of growth of remittances is leveling off. Furthermore, there is reason to suspect that the recent export boom may be short-lived. Between July, 1979 and March, 1980 export earnings in current prices rose by 51 percent, but half of this rise was due to a rise in world export prices while much of the remainder reflects the return of cotton exports to previous levels.[111] In agriculture, the promising growth of the last several years may be attributed more to good weather and the effects of policy changes which preceded the current government's rise to power than to long run increases in productivity. Finally, in industry, growth remains constrained by an ad hoc system of administrative controls, declining labor productivity, severe labor management problems, and the continuing and unresolved debate over de-nationalization.

Furthermore, there are continuing political debates over de-nationalization and the speed of Islamization, which may well reflect the underlying tension between those who espouse macro growth and those who see the need for broadening the base of participation in social, political, and economic life. Some of those interviewed in Pakistan viewed those debates in terms of a search for a national identity. While the extent of support for Islamization was unclear, at least some expressed the view that this might well be the vehicle by which Pakistan can integrate growth with equity considerations. The degree to which many public officials seemed unimpressed by the need to deal effectively with equity issues was surprising. This was often stated either in terms of the desire to slow the pace of Islamization so as not to impact negatively on new investment and growth, or in terms of a belief that greater equity can only be achieved after the vibrancy of the growth process is restored, or in the expression of concern about the use of limited resources to finance what was considered non-income generating projects in health, education, nutrition, and family planning. Interestingly enough, this largely negative attitude toward social sector investments stood in marked contrast to a repeated request for increased PL 480 shipments of edible oils. When officials were pressed to explain the rationale for using scarce foreign exchange to finance a large consumption item, they said that it had an important impact on the nutritional status of the population. While this cannot be denied, this explanation is probably more reflective of the government's assessment of the political costs of an edible oils shortage than it is of a genuine concern for improving nutritional status. As such, it raises an old question about the commitment of government elites to the maintenance of law and order rather than to social change.[113]

It is unfortunate that U.S. assistance efforts during this most recent period of transition have been constrained by the nuclear issue. As a consequence of Pakistan's nuclear development policy, U.S. assistance since 1978 has been limited to drawdowns on existing projects, PL 480 sales, and support for debt rescheduling (see Table IX). The current low profile of U.S. bilateral assistance is reflected in annual commitments in 1978 and 1979 which were the lowest since 1953. But disappointment with the low U.S. profile reflects more than a concern for Pakistan's need for aid. Most recently, the GOP has signed a multi-year EFF agreement with the IMF.[114] Recognizing Pakistan's precarious balance of payments position, the IMF has extended credit up to $1.7 billion over three years in conjunction with the adoption by the GOP of a series of macro policy changes designed to increase the growth rate.[115] While the Western donor agencies have not, as yet, offered additional financial support, the IMF package is based on the assumption that the major donors will come forth with some combination of structural adjustment lending and debt relief. The IMF's concern for international financial stability and Pakistan's desire to increase aggregate growth rates create the framework of the current dialogue which is likely to continue to detract attention from pressing needs in the social sector. It would be unfortunate if the donor community jumped on this bandwagon while ignoring investments in the social sector. AID's current emphasis on growth with equity places it in a position of leadership and influence within the donor community. Unfortunately, the low profile of the bilateral program may be depriving both Pakistan and the donor community of a much needed opportunity to consider the equity aspects of the donor package which is likely to affect domestic developments over the next few years.

TABLE IX

U.S. BILATERAL AID COMMITMENT TO PAKISTAN: 1978-1979
(in millions of dollars)

	Commodity Aid	Project Aid	PL 480	Total
1978	-0-	20.1	57.7	77.8
1979	-0-	9.1	41.3	50.4
PL 480 as % total (1978-79)			72%	

Source: U.S. Overseas Grants and Loans, 1979 and "Projects in Pakistan". Project funding in 1978 and 1979 included funds for On Farm Water Management, Dryland Agricultural Development, Village Food Processing, Improved Crop Estimating, Basic Health Services, and Fauji Fertilizer Project.

SUMMARY DISCUSSION

From a modest beginning in 1951, the U.S. bilateral assistance program to Pakistan grew to annual commitments approaching $400 million in the early 1960s and a cumulative commitment of approximately $5 billion through 1980.[116] The early program focused on technical assistance and disaster relief, but increasingly shifted to capital assistance, particularly after 1958. Of total U.S. bilateral aid commitments, 19 percent was project aid, 37 percent was program aid, and the remainder was PL 480 concessional sales.[117] Of the project aid, 38 percent was allocated to agriculture, 34 percent to infrastructure with the bulk of the remainder in health and sanitation (11 percent), public administration (4 percent), and education (2 percent).[118] Except for a number of fertilizer loans, the vast majority of the program aid was used to import raw materials, spare parts, and capital to run the industrial sector.

Not surprisingly, the U.S. program went through a number of changes in response to developments in the U.S. as well as in Pakistan. Furthermore, changing conditions played a large role in determining the contribution of U.S. aid to Pakistan's development. In the earliest period of U.S. involvement (1951-1958), a variety of circumstances worked to minimize effective utilization of aid funds. The small size of the program, its administrative instability, the paucity of U.S. knowledge about development and about Pakistan's economic problems, political instability within Pakistan, and the equivocating and uncertain commitment within the U.S. to a foreign aid program, all worked to undercut the effectiveness of aid utilization.

Despite these difficulties, the U.S. supported GOP efforts by providing capital assistance for infrastructure rehabilitation and expansion, technical assistance to ease a skill-shortage, and PL 480 shipments. These shipments made it easier

for Pakistan to finance industrialization by extracting an investable surplus from agriculture. But most importantly, the experience gained during this period laid the foundation for a more programmatic approach to development in the next decade.

After 1958, conditions developed which were conducive to enhancing the contribution of U.S. assistance to development. Debates within the U.S. over the usefulness of a foreign aid program were resolved as were differences over the extension of capital assistance. U.S. experience in Pakistan increased the understanding of her problems and U.S. aid analysts developed more sophisticated assistance strategies to deal with them. Simultaneously, more rigorous models of the aid/development nexus made it possible to estimate Pakistan's need for aid and assess the macro policies necessary to achieve growth objectives. Furthermore, starting in 1960, the Pakistan Consortium was formed, and at least through 1965, the donor community developed a coordinated strategy for assisting Pakistan. But most importantly, the Ford Foundation project to train Pakistanis to manage development began to bear fruit as the Ayub government placed control of the economy in the hands of a small group of Western-educated technocrats whose views on development were similar to those of the Western donor community. These developments provided the structure for a significantly expanded U.S. assistance program by placing AID and the rest of the donor community in the position of supporting modernizing policies. The U.S. responded to these conditions with gradual but substantial year-to-year increases of assistance. Between 1958 and 1964 annual non-PL 480 assistance grew from just under $100 million to approximately $250 million.[119] During this period, major U.S. efforts focused on commodity assistance to the industrial sector, an integrated area development approach in agriculture and expanded assistance for

infrastructure development. While the commodity assistance program was well designed and supported, unfortunate turns in political events caused the U.S. to dissociate itself from this major effort to restructure the industrial sector, leaving Pakistan with little more than a larger foreign debt. U.S./GOP relations were also marred by AID's ill-fated Indus Plain area development scheme.

Despite the failures of these major efforts, there were a number of bright spots in the AID program during this period. Increased PL 480 sales were used to support GOP efforts to adopt more favorable agricultural prices, and investments in institution building and infrastructure development seem to have generated more lasting benefits. Gotsch and Falcon argued that the former played an important role in the breakthrough in agriculture which occurred during the Second Plan period, while impressionistic evidence suggests that the latter may have contributed substantially to development.[120] Unfortunately, time did not permit the analysis of the latter in more depth. AID would be well advised to consider funding special efforts to confirm or deny these impressions.

Unfortunately, this rapid growth in assistance, the favorable development climate in Pakistan, and the quick returns to the commodity assistance program all dissipated rapidly after 1965. U.S. displeasure with Pakistan over its involvement in a 1965 war with India led to a breakdown of the Pakistan Consortium and a termination of U.S. assistance. As a consequence, the progress made in restructuring the industrial system between 1959-1965 was partially reversed as Pakistan reverted to elements of its old trade regime to protect its balance of payments position. Despite an early resumption of the U.S. bilateral program, AID programmers became absorbed in other issues. The pressures of the Vietnam War undoubtedly played some role in United States' unwillingness to resume the

Pakistan program at pre-1965 war levels. Additionally, the gathering storm over West Pakistan's "exploitation" of East Pakistan and the increased questioning of West Pakistan's "robber baron" model of development led to a continuing wind-down and ultimate close-out of the U.S. program in West Pakistan in 1971.

Although resumed again in 1973, AID continued to be buffeted by political developments. U.S. disenchantment with the traditional growth-oriented assistance strategy led to the passage of the Foreign Assistance Act of 1973, which mandated that AID pursue an assistance strategy which promoted growth with equity. Elections in Pakistan brought a regime to power which committed itself to redressing Pakistan's social, political, and economic imbalances. Faced with the need to devise a new assistance strategy, the Mission seized on the government's concern for the small farmer and the poor by proposing a series of micro level investments in agriculture and the social sector. These efforts have provided the foundation of the USAID program since 1973. Whilt it may be too early to assess the ultimate impact of this micro program, the investments in agriculture have been more successful than those in the social sector. This seems to reflect the greater commitment of the GOP to the former. Furthermore, these efforts (in agriculture) have been successful despite an otherwise bleak macro picture.

Unfortunately, the long run success of AID's post 1973 investments have been endangered by several developments. First, the return of the military to power in 1977 has seemingly shifted attention away from the social sector toward a greater concern for macro growth. Secondly, the recently negotiated EFF agreement with the IMF is likely to continue to shift attention away from pressing needs in the social sector. Finally, as a consequence of Pakistan's attempts to develop

a nuclear capability, the U.S. terminated the bilateral aid program in 1978. Since then assistance has been limited to draw-downs on existing project agreements, PL 480 sales and support for debt relief. Although a number of donors appear interested in picking up the USAID projects in water management, it is not clear what will happen to USAID post-1973 micro-project interventions in agriculture and the social sector.

While this picture of the U.S. bilateral assistance program to Pakistan is not an altogether pleasant story, a number of important inferences about the relationship between U.S. bilateral aid and development can be gleaned from that experience. At the very least, AID might consider the following: (1) The bilateral program was interrupted for political reasons at least three times, once in 1965, 1971, and 1978. Furthermore, the rapid growth in assistance between 1960 and 1965 was followed by an equally rapid decline after 1965. In each instance, this lack of stability in aid commitments worked to either wholly or partially negate the developmental impact of the resource transfer. The cessation of new commodity commitments following the 1965 war and the breakdown of the Pakistan Consortium made it difficult for Pakistan to continue the liberalization program that donors and recipient had worked so hard to establish. While subsequent internal political developments may have made it impossible for Pakistan to carry out the program, there is little doubt that the rapid reduction in aid commitments hastened the government to resurrect elements of the old trade regime, largely negating the positive impact of the commodity assistance program on capacity utilization rates and industrial structure. Similarly, the cessation of new commitments in 1978 can be expected to severely limit the impact of the resource transfers associated with the U.S. program developed between 1973 and 1975. Although the current

cultailment is less likely to affect the productivity of investments in water since they have already demonstrated their success, this seems less likely for those investments in fertilizer and the social sector. With respect to the former, severe resource shortages will make it more difficult for the government to maintain the required level of imports, while the lack of success with the latter is likely to lead the GOP to discontinue the program once U.S. assistance ends.

Additionally, erratic fluctuations in aid commitments make it difficult for the managers of development to plan successfully. The reductions in aid which followed difficult political times (especially between 1969 and 1973), exacerbated the economic decline, making it more difficult for the government to resolve tensions in a productive way. While we do not mean to suggest that the difficulties between East and West Pakistan could have been resolved in any other way, it should have been possible to alleviate the tensions within West Pakistan in ways other than those ultimately adopted by the Bhutto government. There was ample warning, as early as 1968, that pressures for nationalization would grow unless mechanisms were created for broadening the base of participation in the industrial system. Furthermore, AID personnel had developed a series of proposals for alleviating those tensions. Unfortunately, the U.S. did not support these measures and systematically reduced new commitments to West Pakistan between 1969 and 1973, depriving it of both a strategy and the resources to resolve its difficulties in a more productive way.

(2) For at least a decade, aid practitioners and critics of aid have been enamored of discussions of policy leverage.[121] Those who favor macro approaches to aid allocation are fond of arguing that nothing is more important than adopting correct macroeconomic policies, while the critics contend that the donor "conditioning system" represents an unwarranted intrusion in the domestic decision-making processes. There is

little doubt that policy changes, particularly those adopted prior to and during the Second Plan period, played an important role in Pakistan's "take off" during that period. The results of changes in agricultural support prices and in the liberalization of the import system offer powerful support for those who favor this approach to aid giving. But the Pakistan experience suggests that much of the argument has been overdrawn on both sides. For one, the success of the efforts in the 1960s as well as of the more recent fertilizer effort is more a reflection of the donors supporting policy changes the recipient wanted to make but felt it couldn't without external support, than it is of donor "conditioning." In this sense those who favor leverage give too much credit to donor agencies for persuading governments to adopt the right policies. Second, at least in the case of the large-scale commodity assistance programs, foreign aid, by broadening the base of participation in the import system, played a role in reducing the political costs of a program designed to enhance efficiency. This hardly reflects the description of "unacceptable interference in domestic politics" that critics see in the "conditioning system". Third, in those instances when the U.S. has tried to leverage the GOP in the sense meant by the critics, it has been less successful. The governmental reorganization proposed in the Revelle Report was never fully implemented and the lack of support within the GOP for an integrated area development strategy played a large role in the failure of the SCARP program. Similarly, the use of "conditioning" in recent PL 480 agreements which provide Pakistan with vegetable oil has met with almost no success.[122] Finally, the lack of interest within the GOP in social sector investments seems to go a long way in explaining the poor performance of recently funded AID projects in health. These examples demonstrate all too

clearly how difficult it is to persuade governments to do something with which they disagree.

(3) Discussions of leverage have often been tied up with debates over the most productive form of aid giving.[123] Those who are most appreciative of the importance of macro policy decisions tend to favor a form of aid, variously referred to as commodity aid, program aid or aid for budget support, which is not tied to specific projects but which fills a resource gap. While it is difficult to argue with the theoretical basis of the preference for generalized aid over project aid, the Pakistan experience suggests that the more generalized aid is subject to a number of important problems. First, generalized aid forms tend to be both quick disbursing and less tied to specific activities so that they are subject to greater manipulation by both donor and recipient. On the donor side, the quick disbursing nature of this aid form is a convenient instrument for those who would like to use aid as a tool of foreign policy. Thus, it is not surprising that the U.S. aid cutbacks to Pakistan in 1965 and 1978 focused on reductions in commodity aid rather than project aid. On the recipient side, the dynamics of domestic political processes make it all too easy for government officials to argue that they are unable to implement the policy changes attached to commodity aid flow. By reneging on agreed upon changes, recipients place donors in a difficult position. If the donor threatens to reduce or withhold committed money to enforce the agreement, resentment seems inevitable, especially since it is likely that the recipient will argue that the donor is not responsive to the internal political pressures faced by the recipient government. If the donor accedes to recipient non-compliance, much of the developmental impact may be lost, but this may be preferable to straining relationships between donor and recipient. Furthermore, by agreeing to non-compliance, the donor signals

the recipient that it can get the aid without meeting the donor's conditions. This may have the effect of getting the recipient to agree to conditions they have no intention of meeting just to gain additional budgetary support. Unfortunately, this scenario seems to have characterized U.S./GOP relationships with respect to PL 480 agreements for imports of vegetable oil.

Secondly, commodity aid offered in support of policy changes seems to generate less lasting effects than project aid. As mentioned earlier, reductions in U.S. support for the liberalization program before it had achieved objectives led to a rapid unraveling of the positive benefits, leaving Pakistan with little more than a larger debt. Similarly, while it is true that expanded increased PL 480 aid played an important role in getting the GOP to increase incentive prices in agriculture, the appropriate price relationships were only continued for a short period of time. Since the benefits associated with this form of aid are contingent upon maintenance of the right policies, deviations from ideal policies are likely to significantly reduce expected benefits. On the other hand, U.S. aid for infrastructure development and institution building seemed to produce effects that continued long after assistance ended. The extensive infrastructure system in the Punjab is ample testimony to the lasting effects of infrastructure aid, while the self-sustaining viability of a wide range of institutions from PICNIC, IAC, WAPDA, to the research station at Mona and the Agricultural University at Faisalabad (formerly Lyallpur) attests to the lasting significance of that aid. But these differences should not be surprising. By definition commodity aid is offered in support for the right policies, but those policies are often subject to intense political debate within recipient governments. Unless they are based on a broad stable consensus or are supported by a strong authoritarian

regime, pressures are likely to develop which make it difficult for any government to maintain them over the long run. Furthermore, intense resource shortages and the frequency of exogenous shocks--from floods, droughts, world recessions, oil price hikes to population booms and migration--make it extremely difficult for governments to maintain correct policies, and when they don't the benefits associated with commodity aid disappear.

On the other hand project aid offers a number of advantages. First, it has produced more lasting effect in the context, and the U.S. tended to complete ongoing projects whenever it terminated aid to Pakistan, thus minimizing the immediate economic impact of resource reductions. Second, focus on the micro project or sector as opposed to the macro level enables a donor to support those micro efforts where progress might be made despite an otherwise bleak macro picture. This seems to characterize U.S. support, especially in agriculture, to Pakistan after 1973.

But the recent planning and administration of project aid in Pakistan has not been without its problems. Interviews with relevant GOP officials revealed that:

1. Not only has project aid been slow disbursing, but projects have tended to require a relatively large share of local currency funding which donors have been unwilling to finance. The slower disbursement rates seem related to the lower capital intensity of recently funded projects as well as to the high costs of project administration. With respect to those costs, GOP officials complained that administrative requirements have become more complex and that each donor has its own special set of requirements. The former increases the administrative costs associated with each project, while the latter increases the

costs associated with increased project aid. With respect to local currency financing, officials argued that by financing projects with fewer foreign exchange costs, the donor community was increasing the resource strain on local development budgets.

2. The shift in donor preference from commodity aid to project aid has created a certain fragmentation in donor assistance and development planning. Each donor seems to have its own objectives and its own set of "pet" projects that it wants to finance. Unfortunately this creates pressures to make a set of investment devisions which are neither integrated into a well-articulated development plan nor reflective of GOP priorities.

3. Donor technical requirements for projects often exceed GOP capabilities and significantly increase project costs, reducing the benefit cost ratios of donor funded projects. Although there was general agreement that the AID funded project in water management was one of the best projects currently being financed by the donor community, GOP officials argued that the capital intensity of the project made it impossible for the GOP to replicate it on a national scale.

While these statements could not be corroborated, they are consistent with the burgeoning literature on project administration as well as with our own knowledge of the growth of project pipelines within AID.[124] For these reasons, it is suggested that AID consider funding a study of these problems within the Pakistani context with a view toward assessing

the seriousness of the problem and investigating ways to increase the efficiency of resource use.

4. Finally, Pakistan's failure to "take-off" and the disappointing performance in the economy since 1965 can be attributed in large part to the failure of the GOP and the donor community to pay adequate attention to the social, political, and economic inequities surrounding the surface stability of the Ayub government. There is no doubt that these inequities are more difficult to deal with than macro growth, nor can one underestimate the substantial economic achievements which took place in the Second and Third Plan period but the Pakistani experience strongly suggests that the benefits of macro growth will not necessarily trickle-down to poorer groups. Consequently, it would seem to behoove those responsible for managing development to at least consider the distributional consequences of alternative investment decisions.

Unfortunately, it does not appear that such consideration has taken place in Pakistan. GOP officials seem consumed with revitalizing the growth process and those who expressed views on equity considerations seem to be operating under an assumption that the growth costs of equity are prohibitive. It is too bad that AID's current unwillingness to finance capital intensive infrastructure investments or high skill training only feeds GOP fears on this score, since it is difficult for the Pakistanis to believe that Pakistani's breakthrough in the 1960s could have occurred without either the massive investments in water, power, and transportation or those in technical training. By failing to demonstrate how Pakistan might meet

equity goals with a minimal sacrifice in growth, it has been all too easy for the Pakistanis to complain that the donor community is pushing them into non-income generating activities which tend to reduce the rate of growth and ultimately the ability of poorer groups to meet their basic human needs on a self-sustaining basis. When combined with the recently signed EFF agreement, which ignores the importance of investments in the social sector, the prospect looms that Pakistan may once again turn toward a focus on macro growth which ignores the need to consider the equity aspects of investment decisions. If this happens one can only hope that we will not see a repetition of the tensions played out between 1968 and 1977.

ENDNOTES: CHAPTER II

1. For Studies on the aid/growth relationship see I. Brecher and S. Abbas, Foreign Aid and Industrial Development in Pakistan, (Cambridge: Cambridge University Press, 1972), N.J. Jacoby, U.S. Aid to Taiwan, (New York: 1966), and G. Papanek, "Foreign Private Investment, Savings and Growth in Less Developed Countries", Harvard University: Center for International Affairs, June, 1971, No. 195.

2. A good example of the macro approach is H.B. Chenery, "Foreign Assistance and Economic Development", American Economic Review, (September, 1966), while an early, but good example of a structural approach can be found in H.B. Chenery and A. Strout, "Development Patterns: Among Countries and Over Time", Review of Economics and Statistics, (September, 1968).

3. The latter are addressed in H.B. Chenery, et.al. Redistribution with Growth, (London: Oxford University Press, (1974) and H.B. Chenery and M. Syrquin, Patterns of Development: 1950-1970, (London: Oxford University Press, 1975).

4. For a critique of gap models see I. Brecher and S. Abbas, Foreign Aid and Industrial Development in Pakistan, (Cambridge: Cambridge Press, 1972), Chapter 2 and K.B. Griffen and J.L. Enos, "Foreign Assistance: Objectives and Conse quences", Economic Development and Culture Change.

5. L. Dudley and C. Montmarquette, "A Model of the Supply of Bilateral Foreign Aid", American Economic Review, (March, 1976), pp. 132-142.

6. See, for example, A.O. Hirschman and R.M. Bird, "Foreign Aid-A Critique", Essays in International Finance, International Finance Section, (Princeton University, 1969).

7. On the application of multisectoral models to Pakistan see A. MacEwan, Development Alternatives in Pakistan, (Cambridge: Harvard University Press, 1971).

8. See Note 1.

9. See, for example, L. Rudel, "The U.S. Assistance Program to India, 1960-1980: An Evaluative History", (AID, June, 1980) or Strategy Team, "U.S. Bilateral Assistance to India", (AID, June, 1978).

10. For a discussion of these issues see either National Planning Board: Government of Pakistan, The First Five-Year Plan (1955-60), (Karachi: Government of Pakistan Press, 1958),

S. Lewis, Economic Policy and Industrial Growth in Pakistan (Cambridge: MIT Press, 1969) and M.A. Rahman, Partition, Integration, Economic Growth and Interregional Trade, (Karachi, 1963).

11. For a more detailed discussion of these issues see J. Burki, Pakistan Under Bhutto, (New York, St. Martin's Press, 1980).

12. USAID Pakistan, Country Assistance Program: Pakistan 1962-63, (1963), p. 518.

13. First Five-Year Plan, page 9 and Central Statistical Office, Twenty-Five Years of Pakistan in Statistics: 1947-1972, (Karachi, 1972) p. 136.

14. Perhaps the best discussion of Pakistan's industrial system is given by Lewis, op. cit. and much of what follows is based on that work.

15. Lewis, op. cit., pp. 59-66.

16. The data and analysis which follow, were taken from Lewis, op. cit., pp. 3-7.

17. R. Dennett & R.K. Turner (eds.), Documents on American Foreign Relations XI, (Princeton: Princeton University Press, 1950), p. 10.

18. A. Mahfooz, The Impact of U.S. Economic Aid Programs on the Growth of the Private Sector in Developing Countries with Special Reference to Pakistan, (University of Southern California, Juen, 1964), p. 118.

19. Commission on Foreign Economic Policy, Report of the President and the Congress, (Washington, D.C., January 23, 1954), p. 9.

20. Mahfooz, op. cit., p. 120.

21. Mutual Security Legislation and Related Documents, (1954), p. 46.

22. Ibid., p. 14.

23. This can be seen in the statements in Truman's Inaugural Address which recognized that the U.S. material resources available for development were limited. Dennett and Turner, p. 10.

24. Mutual Security Program: Proposed Program FY 1954, p. 179.

25. Mutual Security Program: FY 1952, p. 100.

26. Mutual Security Program: Proposed Program FY 1954, p. 178.

27. "Projects in Pakistan", DS/DIU, (AID, Washington, D.C:, October 3, 1980), (See Appendix A).

28. Ibid.

29. U.S. Overseas Grants and Loans, op. cit., (1978).

30. "Projects in Pakistan", op. cit.

31. First Five-Year Plan: 1955-60, op. cit.

32. Design for Pakistan: A Report on Assistance to the Pakistan Planning Commission, (Ford Foundation and Harvard University, 1965).

33. Planning Commission, The Mid Plan Review of the Third Five-Year Plan: 1965-70, (Government of Pakistan, 1968), pp. 222, 228 and Twenty-Five Years of Pakistan in Statistics: 1947-72, p. 140.

34. A series of articles appeared in the Pakistan Development Review which tended to support the analysis. See, for example, N. Islam, "Comparative Costs, Factor Proportions and Industrial Efficiency in Pakistan" PDR, (Summer, 1962), J.H. Power, "Industrialization in Pakistan: A Case of Frustrated Take-Off", PDR, (Summer, 1963), P.S. Thomas, "Import Licensing and Import Liberalization in Pakistan", PDR, (Winter, 1966), and G.M. Radhu, "The Structure of Indirect Taxes in Pakistan", PDR, (Autumn, 1964).

35. For an analysis of the Export Bonus Scheme see H. Bruton and S. Bose, The Pakistan Export Bonus Scheme, Monograph No. 11, (Karachi: Institute of Development Economics, April, 1963).

36. Lewis, op. cit., p. 161.

37. Brecher and Abbas, op. cit., p. 150.

38. W.P. Falcon & C.H. Gotsch, "Agricultural Development in Pakistan: Lessons from the Second Plan Period", (Harvard University: Center for International Affairs, No. 6, June, 1966), p. 54.

39. Ibid., pp. 55-60.

40. Planning Commission, The Second Five-Year Plan, (Karachi: Government of Pakistan, 1960), p. 12.

41. Ibid., p. 192.

42. Twenty-Five Years of Pakistan in Statistics: 1947-72, op. cit., p. 301.

43. "Planning Commission, Outline of the Fourth Five Year Plan: 1970-75, (Government of Pakistan, February 1970), p. 8.

44. Twenty-Five Years of Pakistan in Statistics: 1947-72, op.cit., p. 301.

45. Much of what follows is based on a USAID/Pakistan program document, Country Assistance Program: 1962-3, various pages, and the White House - Department of Interior Panel on Waterlogging and Salinity in West Pakistan, Land and Water Development in the Indus Plain, (Washington, D.C.; The White House, 1964).

46. Ibid., pp. 515-525.

47. Ibid., p. 517.

48. Ibid., pp. 519-525.

49. Ibid., p. 525

50. The Indus Basin area development plan was based on the findings and recommendations of The White House - Department of Interior Panel on Waterlogging and Salinity in West Pakistan, Land and Water Development in the Indus Plain, (Washington, D.C.; The White House, 1964).

51. This was based on a recommendation in The White House Report on waterlogging and Salinity.

52. For example, Papanek demonstrated that as the ratio of aid to GDP rose from 1 percent to 3.8 percent between the 1950s and the 1960s, the savings rate increased from 6.9 percent to 11.3 percent. See G. Papanek, S. Jakubiak, and E. Levine, "Statistical Appendix to Aid, Foreign Private Investment, Savings, and Growth in Less Developed Countries", Harvard: Center for International Affairs, No. 195, page 16, n.d. Furthermore, data presented in the Third Five-Year Plan: 1965- 70 showed that between 1960 and 1965 as the ratio of foreign aid to GNP rose from 5 percent to 6.3 percent, the savings rate rose from 5.9 percent to 9.5 percent (pp. 7-8).

53. G. Winston, "Excess Capacity in Underdeveloped Countries: The Pakistan Base", mimeo, (September, 1968).

54. Islam, op. cit., p. 230.

55. For an excellent discussion of the development of the commodity aid program see J. White, Pledged to Development, (London: Overseas Development Institute, 1967), Chapter 3.

56. Brecher and Abbas, op. cit., p. 134.

57. Ibid., pp. 137-38.

58. See note 34.

59. S. Lewis and R. Soligo, "Growth and Structural Change in Pakistan's Manufacturing Industry, 1954-64", (New Haven: Yale University, Economic Growth Center, 1967), Center Paper No. 99.

60. Brecher and Abbas, op. cit., p. 134.

61. W.P. Falcon and S.R. Lewis, "Economic Policy and the 'Success' of Pakistan's Second Plan", (Harvard: Center for Industrial Affairs, 1966).

62. The Pakistani critique of the Revelle Report can be found in the following: Planning and Development Department, Comments of the West Pakistan Government on the Report on Land and Water Development in the Indus Plain by the White House - Department of Interior Panel on Waterlogging and Salinity in West Pakistan, Government of Pakistan, n.d., G. Mohammad and C. Beringer, "Waterlogging and Salinity in West Pakistan: An Analysis of the Revelle Report", Pakistan Development Review, (Summer 1963), G. Mohammad, "Some Strategic Problems in Agricultural Development in Pakistan", Pakistan Development Review, Vol. 4, (1964), and G. Mohammad, "Waterlogging and Salinity in the Indus Plain: A Critical Analysis of the Major Conclusions of the Revelle Report", PDR, (Summer 1964).

63. Much of what follows is extracted from Chapter 7 from the Comments of the West Pakistan Government on... cited in note 62.

64. Ibid., p. 74.

65. Ibid., p. 75.

66. See Mohammad & Beringer, op. cit., pp. 266-69.

67. Ibid., p. 367.

68. Ibid., p. 237.

69. Ibid., pp. 235-237.

70. For example, in the Outline of the Fourth Five-Year Plan (1970-75), Planning Commission: Government of Pakistan, 1970, p. 169. The Government states:

> "Much as we would like to encourage private tubewell development the performance of the private tubewells is...substandard. Besides the tubewells are scattered... As a result, these tubewells have little effect on the water table. The private sector tubewell programme, therefore, has to work in conjunction with and not as a substitute for the SCARP tubewells in the public sector."

71. T.R. Thompson, "End of Tour Report-U-513 3555/20", p. 11.

72. A. Gorvine, The Revelle Report: A Case Study in the Administration of Techical Assistance, (Syracuse University: Maxwell School, January 1965), pp. 3-7.

73. Mohammad, op. cit., p. 235.

74. Thompson, op. cit., p. 5.

75. E. Mason, Economic Development in India and Pakistan, (Harvard: CIA 1966), p. 23.

76. Falcon and Gotsch, op. cit., pp. 59-60.

77. "Projects in Pakistan", op. cit.

78. Ibid.

79. The failure of USAID efforts in public administration is discussed in Chapter IV of this volume on public administration.

80. See the next section of this paper for a discussion of AID's agricultural strategy after 1973.

81. The gross investment rate fell from 18.3 percent in 1964-65 to 14.3 percent in 1968-69. The decline in the investment rate was due to a one percent decline in the domestic savings rate and a three percent decline in the ratio of foreign aid to GNP. The rise in defense expenditures claimed an additional Rs. 5.6 million in government expenditures and was responsible for more than 50 percent of the decline in public development expenditures. Finally, imports grew by less than one percent per year. Planning Commission, Evaluation of the Third Five-Year Plan, May, 1977, pp. 1-3.

82. The Third Five-Year Plan: 1965-70, pp. 11-12.

83. Mahbub-ul-Haq, Business Recorder, (Karachi, April 25, 1968 , p. 1.

84. S. Guisinger and Norman Hicks, "Long Term Trends in Income Distribution in Pakistan", World Development, Volume 6, (1978), pp. 1271-1280.

85. Development Assistance Program FY 1974: Pakistan, op.cit., p. 5.

86. IBRD, Pakistan: Economic Developments and Prospects, (April 15, 1980), page 100 and Twenty-five Years of Pakistan in Statistics, p. 308.

87. Burki, Pakistan Under Bhutto, (New York: St. Martin's Press, 1980), pp. 111, 114, 117, 118.

88. Pakistan: Economic Developments and Prospects, op. cit., p. 80.

89. E.H. Smith, "West Pakistan - Industrial Strategy", Analytical Paper No. 3, submitted in support of FY 1973 country submission, (August, 1971), p. 19.

90. See Smith, page 21 and C.B. Wienberg, "Summary of Proposals/Private Enterprise Sector Paper", (AID Karachi, May 11, 1972), pp. 1-4 and Smith, p. 12.

91. See USAID Pakistan, Development Assistance Program: An Internal Working Document, (December, 1974).

92. USAID Pakistan, Development Assistance Program FY 1974: Pakistan, (July, 1972), p. 4.

93. The Fourth Five-Year Plan: 1970-75, p. 48 and IBRD, Pakistan Economic Developments and Fifth Plan Review, Report No. 2394-PAK, (April 12, 1979), pp. 84-100.

94. Country Assistance Program: Pakistan 1962-63, op. cit., p. 539.

95. Ibid., p. 542.

96. See M. Haq, Strategy for Economic Planning, (Karachi: Oxford University Press, 1963).

97. Development Assistance Program FY 1974: Pakistan, op. cit., p. 9.

98. For a discussion of how to implement the new strategy see, "A Strategy for a More Effective Bilateral Development Assistance Program: An AID Policy Paper", (AID, March, 1978).

99. Burki, op. cit., p. 111.

100. What follows is based on a discussion provided in Chapter III of this report and the FY 1974 DAP.

101. In discussions held in Pakistan in October/November 1980 it seemed clear that the capital costs were too high and that both the World Bank and the ADB were interested in picking up this project if AID was to drop it.

102. The literature on the distributional impact of the "green revolution" is voluminous. Excellent reviews are provided in K. Griffen, The Political Economy of Agrarian Change, esp. Chapters 2 and 3 and M. Lipton, "Inter-Farm, Inter-Regional, and Farm-Non-Farm Income Distribution: The Impact of the New Cereals Varieties", World Development, (1978), pp. 319-337.

103. What follows is based, in part, on the material presented in Chapter 5 of this report.

104. See J. Clinton, W. Robinson, P. Reyes and J. Norris, The Family Health Card Report on Pakistan's Expanded Population Planning Program, mimeo, (Washington, D.C. 1976).

105. See for example, Jerry Welgin, "Pakistan's Performance; 1960--1978", PPC/PDPR/ED, (AID, Washington, D.C., Sept. 30, 1980).

106. Akhtar Siddiqui, "Health Care Resources and Public Policy in Pakistan", Social Science and Medicine, 14, (1980), p. 291.

107. The discussion which follows is based on interviews of government officials, both federal and provincial, undertaken between October 23 and November 18, 1980 and on two recent assessments of the economy, IBRD, Pakistan: Economic Developments and Prospects, Report No. 2860-PAK, (April 15, 1980) and Pakistan Institute of Development Economics, The State of Pakistan's Economy: 1970/71 - 1979/80, (Islamabad, 1980).

108. Pakistan Economic Development and Prospects, op. cit., pp. i, ii, iv.

109. Ibid., pp. 80, 94.

110. See the discussion in The State of Pakistan's Economy, op. cit., Chapters 1, 3.

111. Pakistan: Economic Developments and Prospects, op. cit., p. 25.

112. The State of Pakistan's Economy, op. cit., p. 41.

113. Pakistan: Economic Development and Fifth Plan Review, Report No. 2394-PAK, IBRD, (April 12, 1979), pp. 7-10 and 39.

114. For an extended discussion of this issue particularly as it relates to the failure of USAID efforts in public administration see the chapter entitled Development Administration and Institution Building in this report.

115. Pakistan-Use of Fund Resources-Extended Fund Facility, International Monetary Fund, (November 10, 1980).

116. These figures were compiled from data provided by the AID, Reference Center computer printout, "Projects in Pakistan" see Appendix C.

117. See note 38.

118. See note 6 and T. Hayter, Aid as Imperialism, Baltimore: Penguin, 1971, A. Harberger, "Issues Concerning Captial Assistance to Less-Developed Countries", EDCC, (July, 1972), and C. Montrie, "The Organization and Functions of Foreign Aid", Economic Development and Cultural Change, (1974).

119. See the discussion of this in the Chapter on assistance to agriculture in this report.

120. See note 118 and A. Carlin, "Project vs. Program Aid: From the Donor's Viewpoint", Economic Journal, (March, 1967).

121. For an excellent summary and review of the problems of aid administration with a useful bibliography of the literature in this area see H.W. Strachan, "Side-Effects of Planning in the Aid Control System", World Development, Volume 6, 1978, pp. 467-478.

APPENDIX A

U.S. BILATERAL AID COMMITMENT TO PAKISTAN: 1951-1979
(in millions of dollars)

	Project Aid	Commodity Assistance	PL 480	Total
1951	.4	-0-	-0-	.4
1952	10.65	-0-	-0-	10.65
1953	10.60	-0-	15.0	25.60
1954	22.7	-0-	73.6	96.3
1955	31.0	40	38.3	109.30
1956	39.0	67.7	56.0	162.70
1957	34.7	64.0	73.2	171.90
1958	44.2	50.0	62.1	156.30
1959	68.9	95.0	63.7	227.6
1960	129.1	90.0	85.7	284.8
1961	35.0	95.5	35.8	166.3
1962	83.9	157.0	152.4	393.3
1963	85.3	100.8	173.2	359.3
1964	136.2	100.0	155.4	391.6
1965	47.7	140.0	158.4	346.1
1966	7.2	120.0	22.6	149.8
1967	41.6	95.0	93.7	230.3
1968	17.2	115.0	163.0	295.2
1969	12.7	91.0	7.7	111.4
1970	20.7	103.0	86.1	209.8
1971	7.1	-0-	100.8	107.9
1972	2.4	60.2	102.7	165.3
1973	12.8	83.6	81.5	177.8
1974	17.4	43.0	42.5	102.9
1975	96.0	-0-	84.9	180.9
1976	42.9	65.0	130.0	237.9
1977	21.7	25.0	37.2	102.2
1978	20.1	-0-	57.7	77.8
1979	9.1	-0-	41.3	50.4
	1,088.25	1,800.8	2,193.9	5,082.95
Percent of Total	21.4	35.4	43.2	100

Source: Tables 1, 3, 7, 9 in text.

APPENDIX B

Projects in Pakistan 1951-1979

Project Number	Project Title	Amount Obligated (in thousands)
	1951-1958	
3910000	Tech Asst Supporting Activity	1451
3910000	Tech Asst Supporting Activity	255
3910000	Tech Asst Supporting Activity	148
3910000	Tech Asst Supporting Activity	195
3910000	Tech Asst Supporting Activity	126
3910000	Tech Asst Supporting Activity	121
3910000	Tech Asst Supporting Activity	737
3910000	Tech Asst Supporting Activity	852
3910125	Labor Relations Training	206
3910176	Expansion Gas Treating Plant	1988
3910196	Karachi Jet Runway	3045
3910001	Village Aid	5251
3910002	ACQ&Distr Fertilizer	900
3910003	E Pak Forest Research Develop	715
3910004	Training Activities	549
3910005	Mass Disease Control	1097
3910034	Mod Storage Foodgrain	125
3910009	Inter College Exchange	10602
3910010	ACQ&Distr Fertilizer	3699
3910011	Karachi Fish Harbor	472
3910012	Rural Health Development	2031
3910013	Soil Mech Hydrau Lab	163
3910014	E Bengal Tuberc Hosp	73
3910015	Locust Control	59
3910016	Bolan Dam	75
3910020	BSU Development	284

Project Number	Project Title	Amount Obligated (in thousands)
3910021	ACQ&Distr Fertilizer	5966
3910022	Plant Protection	752
3910026	Ganges Kobadak Irrigation	2026
3910027	Soil & Water Conserv	496
3910028	Taunsa Barrage	5885
3910029	Agricultural Workshop	1026
3910030	Soil & Water Conserv	77
3910031	Soil & Water Conserv	52
3910032	R R Diesel School	134
3910033	Industrial Trng Cent	892
3910035	Ground Water Survey West Pakis	4605
3910101	Agri Research Prod	608
3910111	Business Administration	2047
3910237	Karachi Water Supply	5493
3910000	Program Support	34796
3910006	E Pak Rd Development	1331
3910008	Chittagong Timb Extr	638
3910036	Study Bank Indus Dis	4
3910037	Statistical Services	2673
3910038	Manuf Indust Alcohol	3
3910039	Gen Edu Adv Services	94
3910041	Admini Oil Companies	5
3910042	Social Welfare Trng	4
3910043	Industrial Disputes	6
3910045	Off Set Printing	1
3910046	Bud Procedure Study	3
3910047	Baluchistan St UN Rd	762
3910048	Housing Res Exp Demo	70
3910050	Atomic Energy Trng	23
3910051	Improv Expans Aviat Ground Fac	5150
3910052	Indust Develop Surve	435

Project Number	Project Title	Amount Obligated (in thousands)
3910054	Fisheries W Pakistan	560
3910055	Fisheries E Pakistan	179
3910056	Pak Hwy Sys Res Deve	140
3910058	Water Resources Advi	134
3910059	Industrial Advisory	40
3910060	Bal Int Payment Study	1
3910061	Nursing Education & Facilities	673
3910062	Devel Civil Air Transportation	4515
3910063	Comm Develop Housing	49
3910064	Trade and Investment	37
3910065	Audio Visual Aid	291
3910068	Industrial Economics	6
3910069	Bank Inspection	15
3910070	Techniques Ec Control	5
3910096	Fisheries Development	99
3910108	Procurement Training	17
3910134	Agricultural Organization	2298
3910000	Reg Civ Aviation Adv	72
3910017	Makhi Dhand Reclamat	820
3910019	Agri Research Demon	1013
3910044	Fenestration Surgery	5
3910049	Diesel Loco Trng Sch	85
3910066	Makarwal Colleries	1022
3910073	Mineral Explor & Development	3687
3910076	Engineer Serv Proj	1891
3910077	Develop Nwr Pro Shop	26
3910079	Municipal Water Supply	77
3910080	Village Water Supply	956
3910083	Med Instrument Repair	57
3910086	Indust Productiv Cen	263
3910088	Post Graduate Medical Center	1996

Project Number	Project Title	Amount Obligated (in thousands)
3910089	Aircraft Maint Pac	262
3910090	Basic Nursing Educat	61
3910092	Mass Contracts	1134
3910097	Dacca Water Supply Sewage Disp	1192
3910099	Undergrad Medic Trng	76
3910100	Rehab of Pak Railway	14668
3910018	Ground Water Explora	188
3910104	Atomic Energy Reserc	734
3910105	Public Administration	3318
3910106	Multan Power Transmi	3356
3910107	Fertilizer Plant	10000
3910007	Fertilizer Factory	12781
3910024	Water Sewage Disposal	3699
3910081	Sr Educ Leader Trng	5
3910098	Surv Indust Ord Fact	34
3910216	Skilled Labor Training	1458
3910219	Pakistan Transport Facilities	7567
3910113	Public Safety	8200
	1959-1968	
3910023	Karnafuli Mulpur Dam	17942
3910053	Teachers Training Institute	4442
3910074	Industrial Tech Assist Center	2233
3910155	High Tension Grid W Pakistan	11838
3910156	Secondary Grid W Pakistan	21681
3910159	Navigational Aids E Pakistan	1720
3910166	SCARP No 1	15540
3910158	Chittagong Port Facilities	4339
3910093	Pici Development Bank	21434
3910109	E Pak Transport Surv	371
3910120	Agricultural Extensi	273
3910121	Animal Husbandry	18

Project Number	Project Title	Amount Obligated (in thousands)
3910152	Indus Basin	70000
3910119	W Pak Transport Survey	354
3910157	Quetta Thermal Power	5322
3910169	Dredger Fleet	2215
3910023	Karnafuli Multi	19444
3910129	Railway Loans 1-5	81571
3910135	Power Commission	177
3910137	Investment Advisory Center	1385
3910141	Tax Administration	5
3910153	Excess Property	336
3910161	Kesc C Station	22472
3910236	Wah Industries	4720
3910245	Improvement Labor Relation	101
3910162	East Pakistan Power Authority	6334
3910136	Imp Pak Highways	7
3910138	Seato Cholera Research Lab	350
3910139	Malaria Eradication	1288
3910140	Govt Administration	1162
3910143	Agric Organization E. Pakistan	2295
3910145	Agric Area Devel West Pakistan	1913
3910150	Forest Products East Pakistan	167
3910151	Forest & Range Management	416
3910164	Sawmill&Timber Extraction Proj	170
3910165	Airport and Airways	1780
3910167	Salinity Ctrl&Reclam-SCARP 2-A	9361
3910168	Chalna Achorage E Pakistan	2337
3910172	Mach Pool Organ West Pakistan	10601
3910173	Mech Equipment Organ-EPWAPDA	1298
3910177	Gen Advisory Serv Pub Hlth Eng	2427
3910178	Gen Invest&Cons Serv-WPWAPDA	11515
3910220	Assist Peshawar University	451

Project Number	Project Title	Amount Obligated (in thousands)
3910160	Coastal Embankments	4241
3910171	Telecommunications Facilities	4591
3910174	Consulting Services	2924
3910175	WAPDA Consultants	5382
3910142	Assist Planning I Institutions	597
3910144	East Pakistan Universities	2434
3910147	Industrial Producty	4
3910161	Karachi Elec Supply	2
3910222	Sui Gas Transmission-Third	5279
3910225	Lvallpur Power Station	16045
3910226	West Pak Power Distribution	12220
3910233	Consult Serv & Urban Water	1714
3910146	Agric University West Pakistan	2117
3910223	Karnafuli Hydroelectric Unit 3	4850
3910224	Siddharganj Thermal Plant	8167
3910227	East Pak Transmission Lines	2278
3910232	Dacca - Aricha Road	11022
3910008	Waterlogging Pakista	1903
3910139	Malaria Eradication	21080
3910230	Expansion of Railway	8184
3910241	Technical Training Pilot Proj	43
3910229	Railway IV Loans - West Pak	27341
3910243	Mining Technology & Develop	175
3910250	Mangla Power Transmission Line	7005
3910253	Mineral Resources Appraisal	338
3910264	Special Development Activity	6
3910266	Special Development Activity	24
3910221	Irrigation Proj Chaj Doab	11185
3910254	Land & Water Use	214
3910257	Hydrol Monitoring & Research	443
3910258	E Pak Small Industries Develop	324

Project Number	Project Title	Amount Obligated (in thousands)
3910276	Commercial Institute East Pak	306
3910278	Summer Science Institutes	1122
3910283	Investment Corp of Pakistan	106
3910256	Family Planning	6246
3910293	Mangla Transmission Lines II	3278
3910282	Assistance Dev Agric East Pak	129
3910304	Special Development Activity	8
3910314	Atomic Energy Commi Sister Lab	54
3910320	Agriculture Tech Support	1473
3910321	Public Health Tech Support	206
3910322	Educational Tech Support	403
3910323	Public Admin Tech Support	206
3910327	Seed Potato Multiplication	27
	1969-1977	
3910303	Govt Financial Management	129
3910143	Ground Water Survey	137
3910296	Agricultural Research	8031
3910299	Govt Admin Staff Improvement	1697
3910370	Family Planning Tech Support	306
3910345	Financial Legislation Improv	56
3910346	Low Cost Textbook Publishing	161
3910182	Indus Basin Development Fund	6076
3910384	Population Planning	622
3910392	Special Development Activity	9
3910393	Expanded Pop Planning	18632
3910366	Institutional Grants	210
3910394	Nutrition Planning and Research	276
3910396	Narcotic Control (Enforcement)	866
3910400	Project Development	8
3910401	Water Management	1128
3910403	Dryland Agri Development I	690

Project Number	Project Title	Amount Obligated (in thousands)
3910424	Malaria Control	24000
3910414	Technical Services	2500
3910417	Village Food Processing	565
3910419	Agricultural Inputs	89247
3910429	Fauji Agrico Fertilizer Project	50
3910418	Improved Crop Estimating	54
3911820	Indus Basin	10000
3910413	On-Farm Water Management II	8417
3910415	Basic Health Services	8500
3910432	Fauji-Agrico Fertilizer Project	40000
3910447	Water Management Research	767

Source: Information Request: Projects in Pakistan, Requested by: Michael Rock, ASIA/DP, Prepared by: Davidson, DS/DIU, RM. 1656, NS

APPENDIX C

U.S. AID COMMODITY LOAN COMMITMENTS TO PAKISTAN: 1962-1975

Obligated-FY	AID Loan No.	Description	Loan Amount
1962	391-H-039 (7)	Iron & Steel Imports	88,142
1963	391-H-046 (53)	General Imports - First	40,676
1963	391-H-056	General Imports - Second	29,388
1964	391-H-066	General Imports - Third	67,243
1965	391-H-080	General Imports - Fourth	99,196
1965	391-H-096	General Imports - Fifth	137,672
1966	391-H-115	General Imports - Sixth	49,055
1967	391-H-117	General Imports - Seventh	69,941
1967	391-H-121	General Imports - 2nd 1967	69,866
1968	391-H-127	Fertilizer for FY 1968	23,700
1968	391-H-131	General Imports - Nineth	113,281
1969	391-H-140	General Imports - Tenth	66,640
1970	391-H-144	Fertilizer for FY 1970	19,942
1970	391-H-148	General Imports	98,568
1973	391-H-152	General Imports	59,999
1973	391-H-153	General Imports for 1973	40,000
1973	391-H-154	Fertilizer for 1973	20,000
1974	391-F-155	Fertilizer for 1974	18,000
1975	391-X-157	General Commodity	25,000
			1,687,916

Source: USAID/Pakistan Mission records, Islamabad, Pakistan

CHAPTER III

AGRICULTURAL DEVELOPMENT

Introduction

Chapter I briefly described Pakistan's situation in 1947. At that time Pakistan was almost wholly dependent on agriculture, having no industrial base and little trade outside villages. This chapter starts with a review of agri-industry and agriculture in the early years and general trends since. This is followed by more detailed examination of five selected development activities:

Water Resource Development
Agricultural Inputs
U.S. Food Aid
U.S. Technical Cooperation
Price and Related Policies

Particular emphasis is placed on water and irrigation development which, at partition, was Pakistan's richest resource potential and its greatest challenge. With the possible loss to India of the waters of the eastern rivers, Pakistan was faced with an early and serious crisis--a crisis to which the United States and later many other members of the international donor community responded with unusual support in terms both of levels of resources and in continuity and cohesiveness.

Agricultural inputs, particularly fertilizer (which has been a focus of major United States support and a major contributor to growth in agricultural output), are examined in considerable detail. Food aid, which made up more than half of United States assistance, is reviewed with particular respect to its impact on Pakistan's development and issues that remain to be resolved. A detailed history of the terms of food aid agreements from 1952-1980 is contained in Appendix A.

Technical cooperation and assistance was provided through a variety of activities. Some of the principal results are the subject of Chapter IV. Pakistan's agricultural policies, referred to in various sections of this Chapter in connection with other agricultural activities, are briefly reviewed in toto.

The final sections of this Chapter summarize the lessons learned and offer some thoughts about future aid priorities.

The Early Years

The period since independence may be and frequently has been divided into a variety of different segments, depending on whether the analyst is looking at the political situation, industry, infrastructure, agriculture, or other aspects of change in Pakistan. Illustratively, industry, especially textiles, developed rapidly during the 1948-55 period, while agriculture stagnated until 1961-62 and then began to grow rapidly, peaking after the 1965-67 drought.

Agri-Industry

The most important early phase of industrial development was processing of domestic agricultural products. This type of industry grew very rapidly in the early years, particularly betweeen 1948 and 1955. During that period, domestic cotton consumption (for yarn and cloth) grew from 15 million to 322 million pounds, as cotton production went from 400 million to 600 million pounds. Yarn production grew from 14 million to 252 million pounds and cloth production from 35 million to 390 million yards. The number of spindles was increased from 78,000 to 1,449,000, and looms from 3,000 to 23,000. In the next approximately 20 years, the numbers of spindles and looms almost doubled, as did cloth production, while yarn production slightly more than doubled. Today, textile manufacture is in poor condition, suffering from obsolete equipment, excessive labor costs, low output and unprofitability.

Processing of other agricultural products slowly shifted to larger, more modern plants. Vegetable product processing grew from two factories and 2,500 tons in 1949 to eight factories and 12,000 tons in 1955; the industry has continued to grow at a rate of 25-50 percent per year. Manufacture of vegetable ghee, in particular, has become a major industry. Production of crystal sugar in 1948 was only 9,500 M.T. (hardly one percent of the cane crop). It grew five-fold to 48,000 M.T. by 1955, suffered six years of stagnation, but since 1961 has risen rapidly now nearly 15 times 1955 levels, accounting for about 25 percent of total cane processed. Processing of oil seeds and milling of wheat and rice grew apace with expansion in output, tending to shift towards larger scale operations, especially during the 1960s.

The other big industrial development related to agriculture occurred in the field of fertilizer production and distribution. At partition, fertilizer consumption was only about 500 nutrient tons annually and domestic production was zero. Until 1955, consumption increased slowly. Indigenous production did not start until 1958-59 (about 7,000 nutrient tons), and no new plants came on stream until 1962-63, when capacity was increased to some 45,000 nutrient tons. The next big jump in capacity came in 1969, and production has risen steadily since. Distribution of fertilizer spurted ahead in the late 1960s, stagnated in the early 1970s, and then picked up rapidly, reaching about 1.1 million nutrient tons in 1979-80.

Metallurgical and metal processing related to agriculture received a major impetus beginning about 1960 from rapid development of private tubewells. This development later leveled off and then declined in the 1970s, when much of the easier expansion (good water, larger land units) was completed.

Infrastructure

The twenty years ending about 1970 witnessed steady and substantial improvement in transport and power facilities. The amount of rail freight carried climbed from 6.4 million tons to 15 million tons.[1] The system itself was redirected to the port of Karachi, where the freight handled rose from about 3.3 million tons in 1947-48 to almost triple that volume in 1970.[2] Total road mileage grew from 13,821 miles to 18,902 miles, and hard surfaced roads from 5,053 to 10,306. The number of trucks increased from less than 1,000 to almost 45,000.[3] Power production increased with completion of Mangla Dam in the 1960s and of Tarbela Dam in the mid-1970s.

Irrigation

The concept of co-riparian rights on national and international rivers had been accepted in pre-partition India as was reflected in the award of the Boundary Commission chaired by Sir (later Lord) Cyril Radcliffe.[4] The 1947 distribution of water withdrawals from the six rivers and associated culturable commanded areas and areas irrigated are shown in Table I which follows.

The Indus Treaty negotiated between 1947 and 1960 and signed in 1960 provided that India would ultimately have the water from the Ravi, Beas and Sutlej Rivers; and Pakistan have full flow of the Indus, Jhlum and Chenab Rivers except for some small customary uses in the upper reaches. Waters of the first three rivers allocated to India, were to be phased over ten years with possibility for extension by one, two, or three years. During this interval a major set of works was to be completed to channel waters from the western three allocated to Pakistan into areas of Pakistan then being irrigated by waters flowing from the Sutlej and Ravi, along with additional works to impound some of the water from the western flow to

TABLE 1

Important particulars* of canals, as in 1947

Name of River	Culturable Commanded Area (million acres)	Area Irrigated	Withdrawals** October-March	April-June	July-September	Annual
			(million acre-feet)			
			India			
Ravi	0.77	0.76	0.7	0.6	0.6	1.9
Sutlej	4.01	2.31	1.7	1.4	1.8	4.9
Beas-cum-Sutlej	1.09	0.77	0.6	0.3	0.6	1.5
Total	5.87	3.84	3.0	2.3	3.0	8.3
			Pakistan			
Indus	12.04	6.47	8.6	6.9	16.2	31.7
Jhelum	1.88	1.45	1.5	1.2	1.1	3.8
Chenab	4.35	3.75	3.2	2.4	2.9	8.5
Jhelum-cum Chenab	2.62	1.93	1.0	1.4	2.0	4.4
Ravi	2.14	2.27	2.4	2.1	2.0	6.5
Beas-cum-Sutlej	4.99	3.65	3.0	1.6	4.9	9.5
Total	28.02	19.52	19.7	15.6	29.1	64.4
Grand Total	33.89	23.36	22.7	17.9	32.1	72.7

*Aggregate of all canals taking off the river in the Indus Plains; the canals taking off the river above the rim station are not included.

**The withdrawals are as in 1945-56.

Source: Indus Water Treaty, N.D. Gulhati, Allied Publishers, 1973, p. 454.

provide perennial irrigation and generate power. Pakistan thus gave up rights to water withdrawals which, as of 1947 (actually for 1945-46), amounted to 11 million acre feet, with a culturable commanded area of 7.13 million acres and an irrigated area of 5.92 million acres. As may be noted from Table 1, in 1947 Pakistan had infrastructure capable of commanding 28.02 acres, irrigating 19.52 million acres and withdrawing 64.4 million acre feet from the Indus River System. Over 35 million acre feet of water was withdrawn during the October-June between-monsoon season. The average annual flow of the three western rivers for which Pakistan was to have full development rights is 135 million acre feet, for the three eastern rivers. Particulars of the rivers as used as the bases for the Indus Treaty negotiations are shown in Table 2. The Indus System serving India and Pakistan at the time of Partition is shown schematically in Figure 1 at head work river levels.

At that time there were no storage works. The first at Bhakra (in India) only came in 1958. In addition to the above, it was estimated in 1947 that 1.9 million acres were irrigated in the Upper Indus, above the rim station, and another 4.73 million acres were irrigated solely from wells.[5] Data for India and Pakistan are combined. Another 2.2 million acres, about half in the main Indus, were cultivated based on annual inundation (the sailab; see Table 3). This development of the Indus had occurred over a long period, but the first modern element of the system, the Upper Bari Doab Canal, was completed in 1859. Table 4 shows approximate dates of completion of major structures completed before 1947.

Returns on early investments in canals, especially those for development of previously crown-owned desert, were very high. For example, the lower Chenab Canal, costing 3.5 million British pounds provided returns of 45 percent annually (1.5 million). By 1911-12, this Canal had achieved its target of irritaging 2.1 million acres.

TABLE 2

Mean volumes of flow*

Name of River	April-June	July-September	October-December	January-March	Annual
	(million acre-feet)				
Indus	27.9	48.7	7.1	5.8	89.5
Jhelum	9.9	8.2	1.8	2.7	22.6
Chenab	6.7	13.1	1.7	2.0	23.5
Ravi	1.9	3.3	0.5	0.7	6.4
Beas	1.9	8.5	1.3	1.0	12.7
Sutlej	3.2	8.4	1.2	0.8	13.6
	51.5	90.2	13.6	13.0	168.3

*As at rim stations, mean for 25 years (1921-22 to 1945-46).

Seasonal variations in flow

Name of River	Percentage* of the annual flow during			
	April-June	July-September	October-December	January-March
Indus	31	54	8	7
Jhelum	44	36	8	12
Chenab	28	56	7	9
Ravi	30	51	8	11
Beas	15	67	10	8
Sutlej	23	62	9	6
All rivers together	30	54	8	8

*Based on volumes of flow as given above.

TABLE 2 (Continued)

River flows compared with canal withdrawals

Name of River		October-March	April-June	July-September	Annual
Indus	mean flow	12.9	27.9	48.7	89.5
	withdrawals	8.6	6.9	16.2	31.7
Jhelum-cum-Chenab	mean flow	8.2	16.6	21.3	46.1
	withdrawals	5.7	5.0	6.0	16.7
Ravi	mean flow	1.2	1.9	3.3	6.4
	withdrawals	3.1	2.7	2.6	8.4
Beas-cum-Sutlej	mean flow	4.3	5.1	16.9	26.3
	withdrawals	5.3	3.3	7.3	15.9
Total	mean flow	26.6	51.5	90.2	168.3
	withdrawals	22.7	17.9	32.1	72.7

Notes:

1. Figures of river flow, as given in the above Statement, represent the mean river flow for the years 1921-22 to 1945-46, as in Statement one Figures for withdrawals by canals pertain to the year 1945-46, the last complete water year prior to partition.

2. It should be noted that the figures of mean flow as given in this Statement are the rim stations, near the points where the rivers emerge from the foot-hills, whereas the withdrawals are at canal offtakes, at different distances below the rim stations.

3. There are considerable losses in the rivers, particularly during summer, between the rim stations and the canal offtakes. During the winter months, on the other hand, in addition to river flow at the rim stations, about 2.5 M.A.F., on the average, is available for canal withdrawals from regeneration.

4. The withdrawals from the Beas-cum-Sutlej, from October, 1945 to March, 1946, were more than the mean flow of the river as, during this period, the actual supply in the two rivers was well above the mean; all the available flow was utilized by the canals. On the other hand, the actual supplies on the Jhelum and the Chenab, during the same period, were much

TABLE 2 (Continued)

River flows compared with canal withdrawals

Notes:

below the mean; hence the apparent surplus. It will be also seen that the withdrawals from the Ravi, during this period, were considerably more than the mean flow of the river. The difference was made up by the waters transferred to this river from the Jhelum and the Chenab through the Upper Chenab Canal and the Haveli Canal.

The relatively large difference between the mean flow of the Beas and Sutlej and the withdrawals from these rivers in April-June was due partly to the actual flow during this period in 1946 being less than the mean and partly to the large losses in these months from the foot-hills to the canal offtakes on these rivers.

Source: The Indus Treaty, by Gulhati, pp. 452-3.

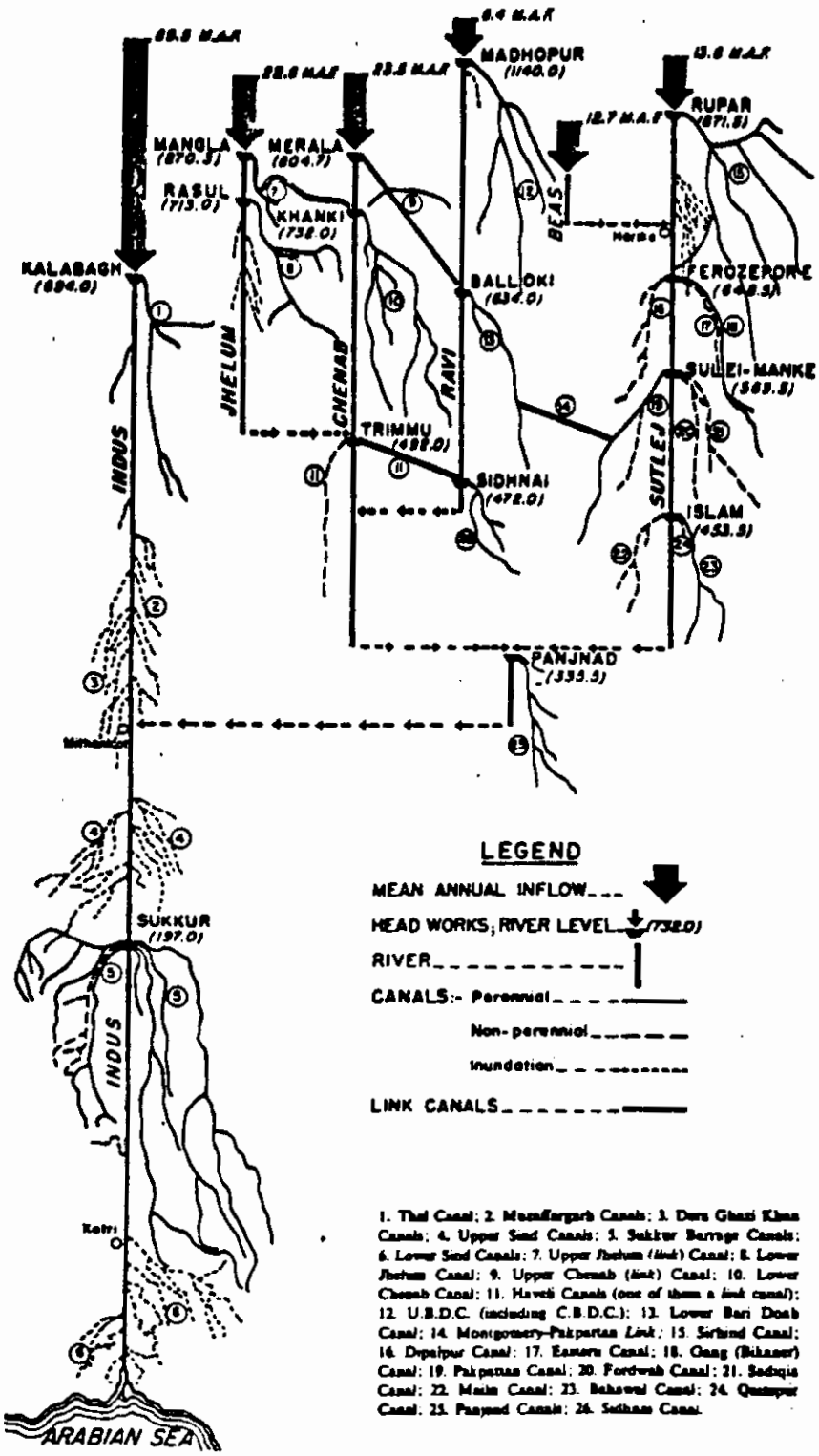


Figure 1. Canals in the Indus plains, as in 1947 (schematic)

TABLE 3

PAKISTAN: LAND UTILIZATION BY TYPE OF USE, 1947/48-1971/72

(In million acres)

Year	Total Area	Area Not Reported	Forest Area	Culturable Waste	Current Flow	Current Fallow	Net Area Sown	Total Area Cultivated (6 + 7)	Sown More Than Once	Total Cropped Area (7 + 9)	Total Area Reported (3+4+5+8)
1947-48	198.7	84.8	3.4	51.5	22.7	9.9	26.4	36.3	3.4	29.8	113.9
1948-49	198.7	85.3	3.4	51.0	22.5	9.3	28.2	37.5	2.3	30.5	114.4
1949-50	198.7	83.6	3.4	51.6	23.0	9.0	28.1	37.0	—	—	115.1
1950-51	198.7	83.9	3.4	51.3	22.6	8.7	28.6	37.4	3.1	31.8	114.8
1951-52	198.7	83.9	3.5	50.8	23.1	9.4	27.9	37.3	2.3	30.2	114.8
1952-53	198.7	83.5	3.2	51.3	22.9	10.0	27.8	37.8	2.1	29.9	115.1
1953-54	198.7	83.2	3.1	51.2	22.7	8.5	30.0	38.5	2.8	32.8	115.5
1954-55	198.7	83.3	3.1	51.3	23.1	8.6	29.3	37.9	3.5	32.7	115.4
1955-56	198.7	83.6	3.2	51.0	22.2	8.3	30.4	38.7	3.9	34.3	115.1
1956-57	198.7	83.4	3.2	50.9	21.6	8.3	31.2	39.6	3.8	35.0	115.3
1957-58	198.7	83.5	3.2	50.3	21.7	9.0	31.0	40.0	3.4	34.4	115.2
1958-59	198.7	84.1	3.2	50.4	20.1	9.6	31.3	40.9	4.5	35.9	114.6
1959-60	198.6	98.2	3.1	32.0	24.5	8.5	32.3	40.8	3.1	35.4	100.4
1960-61	198.6	97.9	3.1	32.5	24.2	8.8	32.1	41.0	2.4	34.5	100.7
1961-62	198.6	96.7	3.2	32.9	24.2	8.7	33.0	41.7	3.4	36.5	101.9
1962-63	198.6	95.2	3.4	31.1	24.6	8.7	33.8	42.4	3.2	36.9	101.5
1963-64	198.6	95.7	3.6	24.7	31.8	10.2	32.5	42.7	4.2	36.7	102.9
1964-65	198.6	68.0	4.9	46.4	33.0	11.3	35.0	46.3	5.2	40.1	130.6
1965-66	198.6	67.5	5.2	46.2	32.2	13.1	34.4	47.5	4.0	38.4	131.1
1966-67	198.6	66.5	5.2	45.8	32.2	12.4	35.2	47.6	5.4	40.5	130.8
1967-68	198.6	67.3	5.6	46.6	31.1	11.2	36.8	48.0	5.1	41.9	131.4
1968-69	198.6	67.8	4.6	50.7	27.8	12.5	35.2	47.7	4.9	40.1	130.9
1969-70	196.8	66.1	4.6	50.4	28.3	11.6	35.9	47.5	5.5	41.5	130.8
1970-71	196.7	64.4	7.0	50.4	27.5	11.8	35.7	47.5	5.4	41.1	132.3
1971-72	196.7	64.5	6.7	50.5	27.8	11.7	34.4	47.2	5.6	41.0	132.2

Ibid., 1976.

TABLE 4

Dates of Completion of Major Indus Structure Prior to Partition

PROJECT		AREA IRRIGATED
Upper Bari Doab Canal	1859	1.0 M.A.
Sirhind	1872	3.0 M.A.
Old Innundation Canals of Punjab from Sutlej, Chanab and Indus Improved	1880	
Sind Innundation Canal Improvement	1900	1.5 increased to 3.0 M.A.
Lower Swat	1885	
Kabul Canal	1892	
Paharpur	1907	---0.5 M.A.
Upper Swat	1914	
Lower Sohag and Para Canals	1882	
Sidhnai	1886	
Lower Chenab	1892	2.45 M.A.
Lower Jhelum	1901	0.6 M.A.
Upper Chanab, Upper Jhelum, Lower Bari Doab Canal	1915	
Sukkur Barrage	1932	6 M.A.
Eleven Canals of Sutlej	1932	
Haveli Canal	1939	
Thal Canal	1947	

M.A. = Million Acres

Sources: The Indus Treaty and others.

Waterlogging and Salinity

By 1947, the huge irrigation system had already begun to encounter severe problems of waterlogging and salinity. Some estimates place the area affected at 25 percent of the total, growing at a rate of 50,000-100,000 acres per year.[6] The direct cause was the large amount of water being applied annually to an area with limited natural drainage capacity--flat slope to the sea, heavy soil flowing below-ground movement, and rivers, where they existed, almost at the level of surrounding area. The problem was compounded by construction of canals and other structures which inhibited the small natural flow. Though salts in the rivers were low, when the water table rose almost to the surface capillary action and surface evaporation resulted in surface salt accumulation which inhibited production. Leaching salts away with heavy irrigation applications interfered with other water use and increased the build-up of the water table. Research results from the Sargodha Remount Station in 1931-32 had first suggested tubewell pumping as a possible way to eliminate waterlogging and salinity.[7] About 1947, a committee in the Punjab reviewed the problem and concluded that tubewells were the only solution and a program of 2,000 tubewells was launched but delayed by partition.[8]

Pursuant to a visit by then Vice President Johnson to Pakistan in 1961 and a visit by President Auyb Khan to Washington in July of the same year, a commission headed by Dr. Roger Revelle was created to examine and recommend an action program to reduce the waterlogging and salinity menace.

A comprehensive program was proposed heavily involving public tubewell pumping to lower the water table. The capital costs of the program to remedy the waterlogging and salinity problem in Punjab and Sind was estimated at $2.3 billion.[9]

Agricultural Inputs and Production in 1947

Food crops occupied 87 percent of the cropped area in principal crops in 1947-48 and about 89 percent of a 10 percent larger area in 1948-49 to 1950-51. Wheat was by far the most important crop in terms of both area planted and its role in meeting food needs. It occupied 42 percent of the area in 1949 and produced a net, after allowing for seed, feed and loss of slightly in excess of 100 Kg. per capita of food, annually, or 275-300 grams, 900-1,000 calories and 35-40 grams of protein per capita, per day.

Production of food, wheat and rice combined was about 140 Kg/capita, coarse grains about 32 Kg., and pulses about 15 Kg., for a total of about 188 Kg. of grain and legumes per capita annually, or 500 grams per day. Together, this provided 1,600 calories and 50-60 grams of protein per capita. Of course, a small part of this would have been wasted or used for seed and feed. Vegetable oil supply from all sources was only about 2.5 Kg./capita/year. Vegetables, including potatoes, averaged less than 20 Kg/capita/year. (See Table 5.)

Land Use

In 1947, the total cultivated area was estimated to be 36.3 million acres of which 9.9 milion was current fallow. Of the 26.4 million acres net area sown, 3.3 million were sown more than once (Table 3). Hence, total cropped area was 29.7 million acres--about .9 acres per capita. Forest was reported to cover 3.6 million acres.[10] However, 85 million acres were not reported, 51.5 million were not available for cultivation, and 22.7 million fell into the category of other uncultivated land, excluding current fallow.[11]

TABLE 5

Area, Production and Yields of
Major Crops 1947-8

CROP	AREA (thousand acres)	PRODUCTION (thousand tons)	YIELD Mds/acre
Rice	1,953	682	9.5
Wheat	9,770	3,301	9.2
Millet	1,998	296	4.0
Sorghum	1,054	202	5.2
Maize	899	353	10.7
Barley	415	111	7.3
Grain	2,179	465	5.3
Sugar Cane	468	8,714	330.8
Rope & Mustard	1,059	172	4.4
Cotton Lint	3,056	194	1.7
Cotton Seed	3,056	387	3.3
Other Products	523	93	4.8
Vegetables	200	540	7.3
Tobacco	30	14	12.7

Source: Twenty-five Years of Statistics, pp. 86-96.

Agricultural Production to 1955

The period 1947-51 was reported to be one of good growing conditions, that is, relatively favorable rainfall. The total net area sown averaged about 30 million acres, slightly lower in 1947-48 than in the two following years. The total area cropped, including double cropping, amounted to 37 million acres, of which 20 million were reported to be irrigated by government canals. The remainder was made up of private wells (mostly persian wells), sailab and rainfed area. Current fallow was 11-12.5 million acres.

Production of both wheat and rice grew rapidly between 1947-48 and 1950-51 (20 percent and 25 percent, respectively). Other minor cereals, sugar cane, and pulses also increased substantially (Table 7).

In the first cotton planting season after the partition, cotton acreage was off 20 percent. People apparently were more concerned about food and devoted more attention to assurance of an adequate food supply to meet family and village needs. The cotton crop recovered in 1949-50 from the depressed production of 1948-49, and in the next three years moved ahead sharply, in part due to the stimulus of the Korean War boom. Cotton production increased from 169,000 MT in 1948-49 to 312,000 MT in 1952-53 and cotton yields went up 40 percent.

Food crop production on the other hand fell after 1950-51 because of competition from cotton, adverse government policies, and a drought. These resulted in sharply lower acreage and reduced yield; by 1952-53, total food grain output had dropped 32 percent. Wheat production fell 40 percent, and maize, sorghum and millet yields also dropped.[12] Overall food crop yields, which were very low at the time of partition, showed little if any improvement until the 1960s. In pounds per acre, rice yields were only 780, wheat 820, millet and sorghum 320-400, maize 820-900, pulses about 320. Vegetables yielded 2.65 MT per acre.

Low production was variously attributed to small crop area per head of population and low yields per acre, the latter caused by low fertility, inadequate rainfall, waterlogging, salinity, soil erosion, pests, primitive production methods, lack of credit, and the system of land tenure. This ignores the critical importance of inter-crop and intersectoral price relationships and price stability as factors in the production declines. The First Five-Year Plan (1955-1960) proposed modest increased production targets: wheat 12 percent, rice (for both East and West Pakistan) 8 percent, cotton 21 percent. Half the target increases were to come from yield increases for which priorities were to be:

1. plant breeding,
2. distribution of improved seed,
3. use of more fertilizer and manure,
4. expansion in plant protection,
5. more efficient use of available water, and
6. more extension and research in all phases of crop production.[13]

The absence of any comment on prices is notable. Nor was any action proposed for reducing waterlogging and salinity, though these problems were acknowledged causes of low yields. Modest programs for fertilizer use were recommended, but with notation of uncertainties, for example, about the returns anticipated from use of nitrogen on the alkaline soils of the Indus Plain. A research program to resolve these uncertainties was evidently not considered. Fertilizer subsidies were to continue at 50 percent of cost.

Net acreage sown increased from 26.6 million acres in 1947-48 to 29.3 million acres in 1954-55. During the same period, the area reported irrigated by government canals increased from 19.5 to 22.3 million acres, accounting for 2.8 of the 2.9 million acre increase.[14] The First Plan expressed concern over excessive delays in colonization of new canal-irrigated areas and attributed much of the slow growth in agriculture until 1955 to this problem. Area double cropped

increased only from 3.4 million to 3.5 million acres, but was much lower in 1952-53 (2.1 million acres), due probably to the large increase in cotton production because of high world prices brought on by the Korean War, the normal slowness in cotton harvesting, which kept much of the cotton land from being planted in the rabi, and the drought.

Expenditures on irrigation and power in the Indus from 1947 to March, 1955 totaled Rs. 899 million, of which about Rs. 650 million was to irrigate 770,000 new acres and to reclaim 185,000 acres.[15] The First Plan period was expected to irrigate 1,453,000 additional new acres and reclaim 500,000 acres. Achievement was about half the target.

The Plan called for coordinated use for reclamation and irrigation of all possible systems, including inter alia, groundwater pumping and mixing ground and canal water.[16] It estimated that the area already affected by waterlogging and salinity exceeded six million acres.[17] As of 1955, use of tubewells to control waterlogging and salinity and to augment irrigation water was inhibited by high electrical power rates.[18]

Adricultural development was aided by the high priority accorded to transport and ports after partition. Between 1947-1955, one hundred miles of railway line were built, and 53 diesel locomotives and 4,000 cars and wagons added.[19] Another 7,200 carriages and wagons and 72 diesel engines were planned for 1955-60. In the same period, 2,850 miles of all-weather and 1,500 miles of other roads were constructed.[20] Truck numbers increased by ten-fold in the first six years.

One other area of development emphasis should be mentioned. At partition, Pakistan had 90,000 MT of government grain storage capacity. By 1966, 352,000 MT of capacity had been added, 66,000 MT more were under construction, and 258,000 MT sanctioned but not started. Decisions were reached in 1956 to maintain reserves of 500,000 MT each of wheat and rice for East and

West Pakistan combined. Of this, approximately 100,000 MT of rice and all of the wheat would be in West Pakistan. This reserve was viewed as inadequate, since year-to-year fluctuations of grain production exceeded this (greater) Pakistan level of reserves.

An Overview After 1955

The total area irrigated by government canals, 20 million acres in 1947, grew steadily at a rate of about 500,000 acres added per year from 1958 until the late 1960s, when the total exceeded 30 million acres.

With completion of the pre-treaty and first phase of the Indus Project and rapid development of tubewells, the total cropped area increased steadily until the mid-1960s at slightly under one million acres added per year. A decline in area added annually followed completion of the principal Indus works and a slow-down in tubewell installation. Surprisingly, the area multiple-cropped actually declined during the first two decades of independent Pakistan.[21] In recent years, the addition of cropped area has been less than one-third acre for each person added to the population compared with the 1945 figure of about one acre of total cropped area per person.

The period of agricultural stagnation which set in in 1950-51 continued until 1961-62 when, for the first time, food crop output exceeded 1950-51 levels (by 5 percent), and fiber output also exceeded the prior (1952-53) peak. Faulty price and related policies, such as restriction on movement and forced sale to government entities at fixed price maxima, are generally considered to have been key factors in the earlier lack of progress. Failure to invest adequately or to implement effectively production input-increasing strategies also played an important part. Fertilizer and canal water were heavily subsidized, but supply limitations and distribution

constraints offset much of this otherwise positive effect. In 1958, the institution of martial law brought, for a short period, even more onerous restrictions on prices and sales.

The beginning of the Second Five-Year Plan period (1960-1965) saw a relaxation of controls, a shift from price ceilings to price supports, greater investments in expansion of canal irrigation, the beginning of the tubewell development program, and increased and improved fertilizer distribution. All these began to pay off.[22] By 1969-70, overall crop output had jumped by 85 percent from 1960-61 (see Tables 8 and 9).

Production of wheat, the major crop, which had peaked in 1950-51 at 3,950,000 M.T. only to drop by 40 percent in 1952-1953, again reached the former level in 1961-62. Output thereafter expanded rapidly, going up 91 percent by 1969-70. Rice production grew by 133 percent, sugar cane by 100 percent and cotton by 78 percent. Rice yield increased by 68 percent, wheat by 45 percent, and cotton by 32 percent. Acreage of rice, wheat, and cotton increased by 25 percent, 35 percent, and 35 percent respectively. Tobacco production grew even more rapidly during the 1947-48 to 1969-70 period, going from 14,000 M.T. to 114,000 M.T. (614 percent). Unfortunately, most other crops failed to experience significant advances in either output or yield (notably, barley, millet and the pulses as a whole). Oilseeds, other than cottonseed, also had growth rates far below the rate of population growth.

It is interesting to look back at the optimism that characterized the agricultural situation in the late 1960s. A USAID report of 1967 says,

> The history of Pakistan's agriculture can be roughly divided into three periods. The first period--from the time of the birth of Pakistan (1947) to the early 50s--was marked by a complacent attitude towards agricultural development. Agricultural production was sufficient to provide the food and fibre requirements of

the country. Since Pakistan inherited very few industries, all attention was focused on development of the industrial sector.

This attitude proved costly. A stagnant agriculture could not satisfy the increasing needs of a rapidly growing population. Food imports became necessary. The second period, characterized by a stagnant agriculture, lasted from the early 50s to the late 50s.

The third period, roughly from 1958 to date, was one of a rapid growth rate in agriculture. This period covered the last two years of the First Plan and the whole of the Second Plan period. Both the First and Second Plans placed great emphasis on agricultural development and so does the Third.

With the coming of President Ayub Khan at the helm of affairs, implementation of development programs in agriculture began with real vigor. In fact, he proved to be a real friend of the farmer and a benefactor of the rural sector. This conclusion should not be based on the mere fact of high growth rates achieved in agriculture; there are other indications also. For instance, one of the first acts of President Auyb Khan, after assuming office, was to bring about land reforms. The farmers were freed from the yoke of big landlords and "jagirdars." Limit of maximum holdings was fixed at about 500 acres of irrigated land and 1,000 acres of un-irrigated land; to stop sub-division to uneconomic sizes, minimum limit of holdings was fixed; while consolidation of holdings was started on bigger scale to undo the ill-effects of fragmentation. Equally important was the introduction of the institution of Basic Democracies: the farmers gained new importance, found a way to have a greater say in the proposals for their development, and were brought in closer touch with the administration.

The period from 1969-70 to 1975 was characterized by decline in agriculture, but was followed by a period of substantially accelerated growth in output, beginning about 1976 and continuing to the present. In 1979-80, wheat production reached 10.9 million tons, up 3.6 million tons from the 1969-1970 level, and cotton was up about 50 percent. Unlike the previous largely irrigation-fueled booms, this one was largely

fertilizer-fueled. Fertilizer consumption grew by 600-700,000 nutrient tons in five years, sufficient to account for the major part of this rapid growth rate.

Again, in 1980, as at independence and in 1969-70, food self-sufficiency looms on the horizon. Major supply concerns center on the rapid growth in vegetable oil consumption and imports. Consumption of vegetable oils in 1980 is near ten times the 1947 level, with the major part of the requirements now being met by imports. Depending on the cotton crop and international prices, this is likely to involve a foreign exchange cost of $250-$300 million per year, with demand growing at a rate of 15 percent per year. Other major concerns are the inefficiency (wastage) in publicly supplied irrigation water and continuing inadequacy of research and extension organizations. The large fertilizer import bill is also a matter of great concern, but there is hope it will soon be reduced with new plants coming on stream.

Details of developments from the initiation of United States assistance to agriculture in the early 1950s are discussed in separate sections on imports, water, technical cooperation and Food Aid.

TABLE 8

ACREAGE, QUANTUM AND VALUE INDICES OF MAJOR CROPS
(BASE: 1959-60 = 100)

YEAR	Acreage Index				Quantum Index				Value Index		
	All Crops	Food Crops	Fibre Crops	Other Crops	All Crops	Food Crops	Fibre Crops	Other Crops	All Crops	Food Crops	Fibre Crops
1947-48	80	80	92	63	74	81	68	52	74	81	68
1948-49	87	90	78	66	86	99	59	61	86	99	59
1949-50	85	88	83	61	87	97	76	65	54	51	78
1950-51	90	92	91	68	90	100	86	57	62	54	101
1951-52	85	84	100	77	74	76	85	58	65	56	105
1952-53	84	82	103	70	72	68	109	61	64	59	110
1953-54	91	93	86	76	91	96	87	78	62	61	60
1954-55	91	91	94	87	88	86	97	91	62	57	74
1955-56	97	96	105	91	90	90	102	80	66	67	86
1956-57	98	98	107	90	94	95	105	84	78	75	87
1957-58	96	94	108	98	96	92	104	102	82	80	78
1958-59	100	99	99	106	102	99	97	112	85	83	77
1959-60	100	100	100	100	100	100	100	100	100	100	100
1960-61	96	96	96	93	100	98	103	103	107	102	102
1961-62	101	102	104	96	109	105	111	122	106	99	108
1962-63	103	103	102	107	119	108	125	151	113	103	119
1963-64	102	101	110	100	118	108	144	134	129	111	130
1964-65	109	109	109	105	128	120	130	152	147	124	161
1965-66	109	107	116	110	127	107	142	181	150	108	188
1966-67	110	108	119	118	135	114	156	188	173	155	168
1967-68	119	117	133	112	157	150	171	170	192	187	202
1968-69	116	116	130	103	168	160	181	184	198	177	237
1969-70	118	117	131	115	185	177	184	209	212	198	171
1970-71	110	107	129	114	183	179	177	199	208	181	245

Source: 25 Years of Statistics

TABLE 9

PRODUCTION OF PRINCIPAL CROPS

1947-48 - 1980-81

THOUSAND METRIC TONS

Year	Wheat	Rice	Sugar Cane	Cotton Lint	Oil-Seeds 1/	Pulses	Coarse Grain	Tobacco
1947-48	3,301	682	5,442	194	569	683	962	14
1948-49	3,974	735	6,837	169	527	963	1,184	17
1949-50	3,862	792	7,725	217	582	828	1,184	24
1950-51	3,930	852	5,419	246	700	948	1,140	29
1951-52	2,961	719	5,314	245	695	621	946	35
1952-53	2,367	819	7,151	312	757	488	925	25
1953-54	3,587	906	8,815	249	773	774	1,278	38
1954-55	3.136	826	8,696	277	780	793	1,099	73
1955-56	3,317	828	8,070	293	818	887	1,165	48
1956-57	3,581	831	8,806	300	834	882	1,194	46
1957-58	3,508	862	11,116	299	809	823	1,054	55
1958-59	3,845	976	12,292	278	835	767	1,160	57
1959-60	3,847	979	10,494	287	824	819	1,168	61
1960-61	3,754	1,014	11,457	296	835	815	1,068	59
1961-62	3,963	1,109	14,130	319	868	831	1,202	69
1962-63	4,104	1,078	18,148	360	999	873	1,260	70
1963-64	4,096	1,173	15,885	412	1,060	817	1,217	74
1964-65	4,518	1,329	18,373	371	987	862	1,363	81
1965-66	3,854	1,296	21,957	408	1,034	726	1,247	108
1966-67	4,266	1,343	21,635	456	1,168	848	1,303	138
1967-68	6,317	1,475	18,364	509	1,375	703	1,578	128

TABLE 9(continued)

PRODUCTION OF PRINCIPAL CROPS

1947-48 - 1980-81

THOUSAND METRIC TONS

Year	Wheat	Rice	Sugar Cane	Cotton Lint	Oil-Seeds 1/	Pulses	Coarse Grain	Tobacco
1968-69	6,513	2,000	21,624	518	1,423	694	1,294	123
1969-70	7,179	2,363	25,953	528	1,374	666	1,340	114
1970-71	6,374	2,165	22,801	534	1,409	—	1,475	111
1971-72	6,890	2,262	19,962	709	1,687	—	1,412	87
1972-73	7,442	2,330	14,947	702	1,709	—	1,471	66
1973-74	7,629	2,458	23,911	659	1,626	—	1,605	66
1974-75	7,673	2,314	21,242	634	1,657	—	1,417	77
1975-76	8,691	2,618	25,547	514	1,252	—	1,529	61
1976-77	9,144	2,737	29,523	435	1,119	—	1,466	73
1977-78	8,367	2,950	30,077	575	1,418	—	1,547	74
1978-79	9,940	3,272	28,000	473	1,260	—	1,496	70
1979-80	10,870	3,204	27,200	747	1,796	— 2/	1,505	76
1980-81 E/	—	3,300	33,000	755	1,800 3/	—	—	—

Sources:

1947-48 - 1970-71 - 25 Years of Statistics

1971-72 - 1980-81 - USAID Pakistan Economic Data, 1980, USDA and Ag. Attache Reports

1/ Oilseeds for 1947-1980 exclude soybean, sunflower and safflower.

2/ Pulses are estimated to be 20-25% over 1970-71.

3/ From 1970-71 to 1980 Data exclude ground nuts and hence understate production by 50,000-100,000 metric tons per year compared with 1969-70. In 1979-80 ground nut production was estimated to be 50,000 metric tons.

Water Resource

"The Indus Plains of West Pakistan features perhaps the world's most favorable environment for rapid, intensive agricultural development. Here occurs a unique juxtaposition of the natural factors essential to irrigated agriculture--vast areas of arable lands highly suited for irrigation, abundant supplies of surface water from the Indus system of rivers and large ground water storage, and a favorable climate which permits year-round cropping. More than this, the plains are served by a complex system of modern irrigation canals which distribute more water to more land than any other canal system and account for some 12 percent of the world's irrigated acreage."[23]

At Pakistan's independence, the benefits to be gained from a major investment in water development were evident both from the results of 90 years of pre-partition irrigation development in the Indus Valley and from the potentially disastrous consequences of the impending Indian cut-off of the Ravi and Sutlej waters if necessary compensating structures were not put in place quickly.[24] It is significant, however, that the United States moved promptly and massively to help in this area. United States assistance to water development, both irrigation and power, became the largest and most extensive of any of its efforts in Pakistan. It included aid in development of large dams, barrages, major canals and minor irrigation water distributaries, improvement in on-farm water management and generation and distribution of power.

The Indus Basin Project

The largest single project in Pakistan was the Indus Basin Project, at a cost of $2.5 billion. The United States contributed $727.6 million to the project directly, of which $311 million were dollar grants, $181 million loans and $235

million equivalent local currency grants under PL 480 (104(f)). If the share of United States contributions to the IBRD and IDA financing is added, the United States contribution comes to nearly $800 million. In addition, the United States made major contributions to supporting developments such as power transmission, other barrage and canals and SCARPS, as noted earlier.

Up to 1978 Pakistan had contributed a total of $962 million equivalent in local currency, of which $558 million was for Tarbela (Table 1).

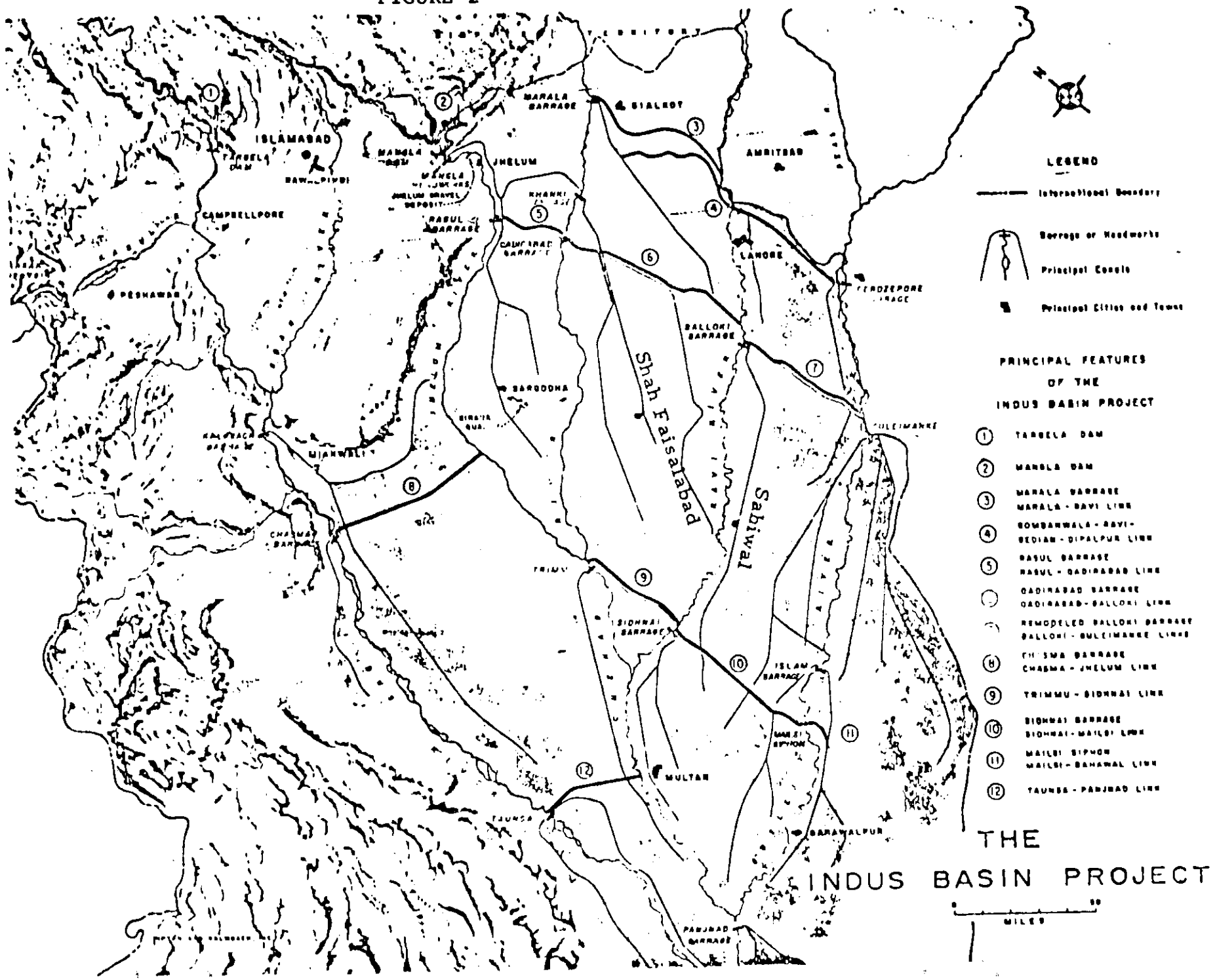
The contribution of all other donors totaled about $700 million. The project included the following:

- Mangla Dam with 5.3 MAF storage capacity.
- Tarbela Dam with 9.3 MAF live storage.
- Eight link canals to transfer water from the western to the eastern river irrigated areas.
- Five new barrages on different rivers.
- One inverted syphon (See Figure 2).
- Power generating capacity of 1.7 megawatts, ultimately to be increased to 3.1 megawatts (See Figure 2).

A recent evaluation report notes:

> "The development benefits of Tarbela to the Pakistan economy have been most noticeable in the power sector, where it has already contributed over 9 billion kilowatt hours which, expressed in terms of savings in imported oil at contemporary oil prices during the period, would be worth about US $375 million. With the present installed capacity of 700 MW the average annual benefits in terms of imported oil savings are estimated to be around U.S. $300 million per annum, which would increase to U.S. $700 per annum when the total rated capacity reaches the presently planned 2100 MW. These savings are based on an average cost of fuel for thermal generation in northern Pakistan of 6.0 U.S. cents per kwh calculated from January 1980 international oil prices.

FIGURE 2


ISLAMABAD
TARBELA DAM
MANGLA DAM
MANGLA BARRAGE
JHELUM
SIALKOT
AMRITSAR
CAMPBELLPORE
RASUL BARRAGE
KHANKI BARRAGE
PESHAWAR
LAHORE
FEROZEPORE HEAD
BALLOKI BARRAGE
SARGODHA
Shah Faisalabad
Sahiwal
MIANWALI
CHASMA BARRAGE
TRIMMU
SIDHNAI BARRAGE
ISLAM BARRAGE
MULTAN
TAUNSA
BAHAWALPUR
PANJNAD BARRAGE
LEGEND
International Boundary
Barrage or Headworks
Principal Canals
Principal Cities and Towns
PRINCIPAL FEATURES OF THE INDUS BASIN PROJECT
1 TARBELA DAM
2 MANGLA DAM
3 MANGLA BARRAGE
MANGLA - RAVI LINK
4 SOMBANWALA - RAVI - BEDIAN - DIPALPUR LINK
5 RASUL BARRAGE
RASUL - QADIRABAD LINK
QADIRABAD BARRAGE
QADIRABAD - BALLOKI LINK
REMODELED BALLOKI BARRAGE
BALLOKI - SULEIMANKE LINK
8 CHASMA BARRAGE
CHASMA - JHELUM LINK
9 TRIMMU - SIDHNAI LINK
10 SIDHNAI BARRAGE
SIDHNAI - MAILSI LINK
11 MAILSI SIPHON
MAILSI - BAHAWAL LINK
12 TAUNSA - PANJNAD LINK
THE INDUS BASIN PROJECT
MILES

> In addition there are further savings to the economy measured by the cost of installing equivalent therman generating capacity, conservatively estimated for the first eight units at U.S. $400 million.
>
> The development benefits of Tarbela in the agricultural sector are much harder to access. Stored water from Tarbela has undoubtedly helped wheat and cotton crop production. However, the efficiency of water use in Pakistan at present is low. The draft Revised Action Programme for Irrigated Agriculture (1979) 4/ states (in para 6.31: 'Water allocations have continued to be dominated by historically based water rights - both in terms of total seasonal quantities and pattern of deliveries. Little attempt has been made to capitalise on the potential for meeting crop water requirements from conjunctive use of surface and ground water; nor are there any serious attempts to supply early season water (rabi or kharif) to commands with the greatest potential for acreage expansion or match water supply and requirements during a season. Rather, since Tarbela storage became available, one additional consideration in requesting provincial water allocations has been the felt need to establish rights to this storage water by maximising surface water usage'. The Government of Pakistan is already trying to obtain the maximum benefits from use of Tarbela water but due to restraints of existing canal capacities greater benefits will only be realised when the Revised Action Programme is fully implemented.

Results of other elements of the Indus Basin Project appear to have been as anticipated, but Tarbela Dam, which was expected to make a major contribution to increased crop acreage and crop production similarly, has fallen far short of the irrigation expectations. However, with recent large increases in petroleum prices, it has done well on the power side.

The major causes of the low irrigation returns are that the Government did not take the needed water allocative actions when the water became available, and failed to recognize until recently the magnitude of the irrigation inefficiencies below dams and barrages. The responsibility for the former rests with the GOP, while responsibility for the latter can be shared with the donor community.

Ground Water Development and Tubewells

The first activities supported by the United States were Bolan Dam in 1953 and Taunsa Barrage in 1954 (six years before the Indus Treaty). Another very early United States assistance project under the initial technical cooperation program was Ground Water Survey, beginning in 1954 and concentrated in the Punjab. This project was aimed at the location of ground water and measurement of water quality to identify suitable sources for irrigation. By 1957, some $11 million had been obligated and substantial progress made in identifying promising areas for concentrated tubewell development. This ground water element was followed in October, 1958 with a $15.2 million loan for the first large-scale public Ground Water Development Program to control salinity, reclaim damaged land and increase irrigation water supplies (the SCARP Program). The Ground Water Survey, which was continued for another decade, and the SCARP "demonstrations" of the potential for ground water development and economics of tubewells had a very important and largely unexpected side effect. They stimulated private tubewells, which by 1960 were estimated to number 4,000. During the 1960s, as import liberalization facilitated access to private drilling equipment, imported pumps and related supplies, and ultimately made local manufacture of these items feasible on a large scale, private tubewell construction rapidly accelerated. By 1964 and 1965 it was estimated that 27,000 private tubewells were in place. In the Third Plan period (1965-1970), additional stimuli were provided and the pace further accelerated to an average of 10-15 thousand per year. By 1970, private tubewells numbered about 100,000, dwarfing the planned public tubewell SCARP Program which, from its inception, encountered numerous operational problems, including inadequate maintenance, electrical shortages, corrosion of the mild steel strainers installed, and salinity which made water unsuitable for irrigation

An important factor in the rapid private tubewell development was the very high rate of return. According to Falcon and Gotsch estimates, private tubewells provided returns (over annual amortizations, interest, and operation) of about 480 percent. If increased farming costs took 50 percent of this, the use of a private tubewell would still yield a net return of 200 percent over operating and amortization costs. Returns on total investment averaged near 50 percent per year, or two years for recovery of the investment.[26]

Falcon and Gotsch estimate that tubewells accounted for one-fourth of the 27 percent increase in crop output during the Second Plan period, by the end of which time there were about 30,000 private tubewells in operation, compared with about 4,000 at the start.[27]

Irrigation Assistance

By far the largest and best known water development project was the Indus Basin Project that engaged from the Indus Treaty. This project had multiple donor support of a program that included Mangla and Tarbela Dams, several major barrages, and numerous link and other major and minor canals.

United States financing of dams, barrages and link canals substantially predated the Indus Agreement of September, 1960. The earlier United States contribution to irrigation was as follows:

Dollar Grant

Bolan Dam	4/1/53	9/14/59	$ 75,000
Nakhi Dhand Reclamation	3/56	8/59	820,000
Ground Water Exploration	6/53	9/59	188,200
Taunsa Barrage	2/54	8/60	5,894,000
Ground Water WP	2/54		4,547,000
		Subtotal	$11,524,200

Dollar Loan		
SCARP I (DLF)	FY 1959	$15,200,000
Local Currency		
Taunsa Barrage	FY 1957	Rs. 29,000,000
	FY 1958	29,940,000
	FY 1959	30,370,000
W. P. Ground Water Survey	FY 1957	----------
	FY 1958	12,000,000
	FY 1959	5,925,000
W. P. Open Canals	FY 1959	55,332,000
Kurran Garhi	FY 1959	Rs. 5,518,000
	Subtotal	Rs. 168,085,000
	Total in dollars	26,724,200
	Total in rupees	Rs. 168,085,000

The total dollar equivalent is approximately $70 million, excluding support for power generation and transmission.

First support for SCARP Programs was undertaken by AID with a contribution of $15.2 million used during 1959-63 to develop the SCARP I tubewell program. This area, comprising some 1.2 million acres in Rechna Doab west of Lahore, was ultimately placed under the Land and Water Development Board, established to provide special attention to this initial SCARP effort.

It was envisioned in the Revelle Report that SCARP I would become a model for intensive development of 24 additional areas and that a total of 25 million acres would eventually be covered in the program.

The plan for SCARP I included a staff of 3,400 Pakistani personnel, with 3,020 on tubewell operation and maintenance alone, plus 425 extension workers. By 1965, AID was providing the full-time input of 14 technical advisors and the 1.2 million acres covered by this development effort had become the major focus of the United States agricultural production effort in West Pakistan. Among other United States inputs, the Washington State University team at Agriculture University, Lyallpur focused on providing the training for the personnel working

on the project. (The 14 advisors were provided under project 391-11-660-145). Large numbers of participants were to be trained in the United States to fulfill the personnel needs of projected SCARPs. The revelle Report and the SCARP I approach were, however, not universally accepted in Pakistan on a number of technical and administrative grounds. (See Technical Cooperation section). As a consequence, full Pakistan support was never accorded to SCARP I.

When SCARP II was proposed, AID initially agreed to finance only part of it because of growing concerns over the problem of poor quality ground water in some areas and poor tubewell performance.[28]

Part of the program for SCARP IIA (the first part of SCARP II-1963) was establishment of the MONA Research Unit of WAPDA, to carry out intensive research on comprehensive development relative to the SCARP tubewell program. This actually had been started earlier under an ICA grant. The United States programmed resources to place a substantial United States technical staff at Mona and built several houses there, but the staff was never provided, in part because of delays in staffing, and, apparently, in part because of changes in AID's view of the activity.

The United States ultimately went on to finance SCARP II P, putting 25 million into II A and II B. In 1968, it obligated money for SCARP IV but later deobligated it. Other donors (e.g., Germany, Yugoslavia, IBRD) have assisted with SCARPS.

Recently, because of the difficulty and high public cost of operating tubewells, the GOP has decided to leave tubewell development in private hands wherever water is suitable for irrigation. It will restrict public tubewell installation and operation mainly "to vertical drainage" in areas where the ground water is too saline to be used for irrigation and drainage can only be provided by pumping. Thus, the 3.6 M.A.F.

(million acre feet) which was to be aded by public tubbewells during 1971-72 likely will not be attained, and new public tubewells may possibly only compensate for the decline in capacity of existing public tubewells.

Water Management and Use-Efficiency

The AID SCARP I evaluation of April, 1965 reported the 2,000 tubewells were providing 2,629,000 M.A.F. in addition to 1,250,000 acre feet of canal water (over a 200 percent increase). This water was being pumped directly into the head of the water course. It was estimated that water loss would be only 15 percent (i.e., 15 percent less water would be available at farmer's fields).

Need for water course improvement apparently was not identified as a problem. The 2,000 tubewells had a capacity of 5,700 cu. secs., or an average of 2.85 cu. secs. per tubewell added to each water course. As later results demonstrated, much higher losses were sustained because of poor design of the water courses.

In the early 1970s the research work planned for the early 1960s finally received significant United States support through the AID/funded Colorado State University Water Research Program, initially located in Islamabad, and through grants of United States owned local currency under PL 480, Section 104. A major contribution of this project was to measure accurately for the first time the efficiency of water use and to identify and measure the loci of major inefficiencies and water losses in this huge integrated system. Water-use efficiency in terms of percent of water entering the watercourse used productively for field evaporation and plant transportation was found to be only about 15-20 percent. This was less than a third of the 63 percent efficiency rate used as a basis for economic justification of Tarbela Dam (Figure 2; see also Tables 2 and 3 for a summary of different estimates prepared by IBRD.)

Losses in water courses were found to average about 40 percent, but to vary from relatively small amounts to over 75 percent in different water courses. Further, it was found that establishment of the large (3-5 cu. sec.) SCAPP tubewells at the head of the watercourse generally greatly increased losses in water courses, thereby, offsetting most of the expected benefits of the SCARP Program.

The recent United States supported Water Management Program, which evolved mainly from this research, identified and measured losses and developed methods for reducing losses and increasing efficiency. These improvement methods included concrete water turnouts and drop structures, unlined and partially lined water courses, and more efficient on-farm water use. Among other things, the program found evidence that good yields could be obtained by application of much less water than heretofore believed necessary.

Of particular importance were the excellent results obtained in mobilizing support or farmers in the form of skilled and unskilled labor and sometimes other inputs to improve the water courses. The widespread publicity given to water losses and the results obtainable by realigning, cleaning and putting in masonry diversion structures at critical points led to groups of farmers demanding help in improving their water courses and offering to contribute to the effort. An AID loan of $7.5 million made in 1976 to expand the program was an important factor in evoking this widespread accceptance. By 1980, about 1,000 water courses had been improved under this project by linking courses at critical points and exercising masonry drop and turnout structures (pucca nakkas). In 1979-1980, to accelerate progress, the Government of Punjab launched a massive but simple program, consisting mainly of minor realignment and intensive cleaning.

A continuation of this program, plus additional improvements such as masonry outlets, is now planned over a five-year cycle to cover all watercourses in Punjab. Meanwhile, IBRD and the Asia Development Bank are planning major financial assistance to expand and provide more permanent water course improvement programs, which will line up to 20-30 percent of water courses when a need justifies and provide masonry outlets and drops.

The large and effective private tubewells development which expanded so rapidly in the 1960s continued to grow during the 1970s but at a slower rate. Expansion is now estimated at between 2,000 and 8,000 per year, more than sufficient to offset the decline in public tubewells output caused by technical, financial, and management problems. In 1974, private tubewells were estimated to number about 130,000 and to pump about 20 MAF per year while public tubewells probably pumped 5 MAF. The Fifth Plan estimated total water available in 1977 at 92 MAF and planned to add 9.5 MAF of ground water per year by 1982--two-thirds private. Private tubewells are estimated to number 160,000-180,000 in 1980 and total tubewell water to be above 30 MAF (See Figure 2 and Tables 4 and 5).

Looking ahead, it is vitally important that priority be assigned to improvement in efficiency in use of water available in the existing systems; an important part of that task must be better control of waterlogging and salinity. It is encouraging that the GOP and donor community appear to agree on this and to agree fairly closely on how it should be done.

Agricultural Inputs

This section covers U.S. support of programs to promote the supply and informed use of a wider range of agricultural inputs--pesticides, high-yielding seed varieties (HYV), agricultural machinery, improved animal breeds, pharmaceuticals,

feed supplies, technical information and credit. All these programs were small, however, in comparison with the massive and sustained U.S. support accorded the fertilizer program. Other donors and private entrepreneurs contributed to this effort. But it was unquestionably the U.S. which worked most closely with Pakistan, providing not only financial assistance, but also encourgement and economic analysis, and actively advocating measures with respect to supply and distribution aimed at increasing the availability of fertilizer to all farmers, big and small. Thus, it is on the fertilizer effort that this section focuses.

Fertilizer - Early U.S. Efforts

Chemical fertilizer was practically unknown in Pakistan until the early 1950s. By 1952 annual consumption was only 1,000 nutrient tons. Although there is little precise information available, it may be assumed that most of that was used on special crops, such as sugar cane and probably tobacco and horticultural crops.

Low fertilizer use and inadequacy of measures to expand use were among the earliest identified priorities for United States assistance. Fertilizer supply and distribution and demonstrations to inform farmers of the value and methods of fertilizer use became the subject of continuous, extensive and successful United States involvement in Pakistan's development process. Support included major financing for fertilizer imports and factories, technical assistance to help improve scheduling of imports and distribution, analyses of price relationships, and technical and financial assistance on research and extension services related to soil fertility and fertilizer use. This last was carried out through a variety of institutional development and production-oriented programs, including Village Aid, the Universities, the Indus Area Development Project and the Agricultural Research Project.

Data indicate that in the early years, almost all the financing for fertilizer came from the United States. The earliest commitment to fund a fertilizer plant, The Daud Plant, was signed on May 28, 1952 for $12.8 million, and predated even the first import financing. Additional plant commitments were made later in the same decade.

Financing of fertilizer imports began under the technical cooperation program, with an agreement signed on June 30, 1952 to finance $10.6 million worth of imports. PIOCs were issued for fertilizer imports as follows:

FY 1952	$ 900,000
FY 1953	3,699,000
FY 1954	3,979,000
FY 1955	1,973,000

Fertilizer use jumped from 1,000 nutrient tons in 1952-53 to 14,800 nutrient tons in 1953-54 and 14,100 nutrient tons in 1954-55. At then prevailing prices, these PIOCs probably financed essentially all of the imports made. Following the reduction in the FY 1955 PIOC, consumption dropped to 6,600 nutrient tons in the 1955-56 (Table 13). The records indicate some fertilizer financing was also provided by the United States from non-project sources: FY 1955 - $1.5 million, FY 1956 - $4.45 million.

In the early years there was great doubt about the value of fertilizer, especially ammonium sulfate, on the alkaline soils in the Indus Basin. The First Five-Year Plan cited research which noted that these soils were deficient in calcium and benefited from gypsum, and that negative responses were reported to ammonium sulfate application.[43] Despite this, a plan was initiated in 1949-50 to supply fertilizer, lime, manure and oilseed cake for use on lands with a 50 percent subsidy, but by 1954-55 only fifteen percent of the target had been attained. With the chemical fertilizer imports financed by the United States, the subsidies were continued, although

it was expected that they would be phased out by 1960. In fact, with some changes, they have continued almost uninterrupted to this day (Table 3).

In contrast to the Planning Commission's negative findings on the effects of using fertilizer, the Revelle Report (1962) cited several sets of research results indicating returns of about 10 Kg of wheat for one Kg of nitrogen. Lyallpur Agriculture University's research results, (a summary of 50 years of research) showed an average return of about 10 Kg of wheat from one Kg of nitrogen, 7.5:1 for rice and 4:1 for seed cotton. Planning Commission estimates on output were slightly lower. However, actual farm experience, reported by the Directorate of Agriculture Statistics from a large sampling of private farms, averaged 13.5 Kg of wheat per Kg of nitrogen, 9.8 for rice and 8.4 for seed cotton.

The report also showed that use of fertilizer was highly profitable for farmers. The actual cost per pound of plant nutrients averaged about fourteen cents but was subsidized at 40-67 percent. Thus, farmers paid only 5-7¢ per pound. Hence, at full price, a pound of nitrogen would cost about four pounds of wheat. At the subsidized price, it required only about two pounds of wheat, and the marginal product was 10-14 pounds of wheat for each pound of nitrogen. Thus, farmers received 5-7 times in wheat the cost of fertilizer.

During the First Plan period the percent of different crops fertilized increased as follows:

Rice	1.8	to	2.9 percent;
Sugar cane	14.6	to	15.3 percent;
Cotton	.8	to	3.0 percent;
Wheat	1.0	to	3.5 percent;
Maize	1.74	to	7.2 percent;
Others	1.1	to	5.3 percent;

With its much larger planted area, by 1959-60 wheat accounted for about 40 percent of the total area fertilized.

Basically, four fertilizer consumption growth periods may be identified - the first, from 1950 to 1960-61, during which consumption increased from 1,000 nutrient tons per year to nearly 20,000 nutrient tons; the second, from 1960-61 to 1966-67, when consumption rose by about 12,000 tons per year; the third, from 1967-68 to 1972-73, during which consumption grew by about 45,000 tons per year; and the fourth, from 1972-73 to 1979-80, which saw a rise in annual consumption from about 400,000 nutrient tons to over 1.1 million, about 100,000 nutrient tons increase per year.

During the first and most of the second period, little attention or priority was directed to agriculture, and increases in fertilizer consumption were slow despite liberal United States financing. Growth in agricultural output was largely due to improved canal water availability and increased acreage planted. Little real attention was paid by the GOP to fertilizer distribution or development of demand for fertilizer. It was not until about 1963-64 that fertilizer consumption started to expand rapidly, only to be interrupted by domestic supply shortages, changes in the distribution system, and the 1965-66 drought period. The drought and production short-falls related thereto appear to have galvanized the GOP into action. New high yielding varieties (HYV) of wheat and rice were introduced in quantity and fertilizer became of major importance, in part because of the dependence of new varieties on high fertility levels. The trend suddenly shifted sharply (See Figure 1). Another almost unnoticed factor also began to have a major impact. This was the development of private tubewells, which grew from about 4,000 in 1960 to about 100,000 in 1970. For the first time, farmers began to have some real control over their water supply, making HYV and fertilizer more profitable.

By comparison, this development was dwarfing the SCARP and other public tubewell programs of the government. Increased use of fertilizer and private tubewells, combined with some expansion in acreage contributed by new Indus Basin barrages, canals, and colonization, and the use of new high yielding varieties, especially of wheat, brought about a spectacular surge in agricultural production, especially in food grains, in the years following the 1965-66 drought.

FIGURE 1 - Linear Trends -- Nitrogen (N) and Phosphate (P) Offtake

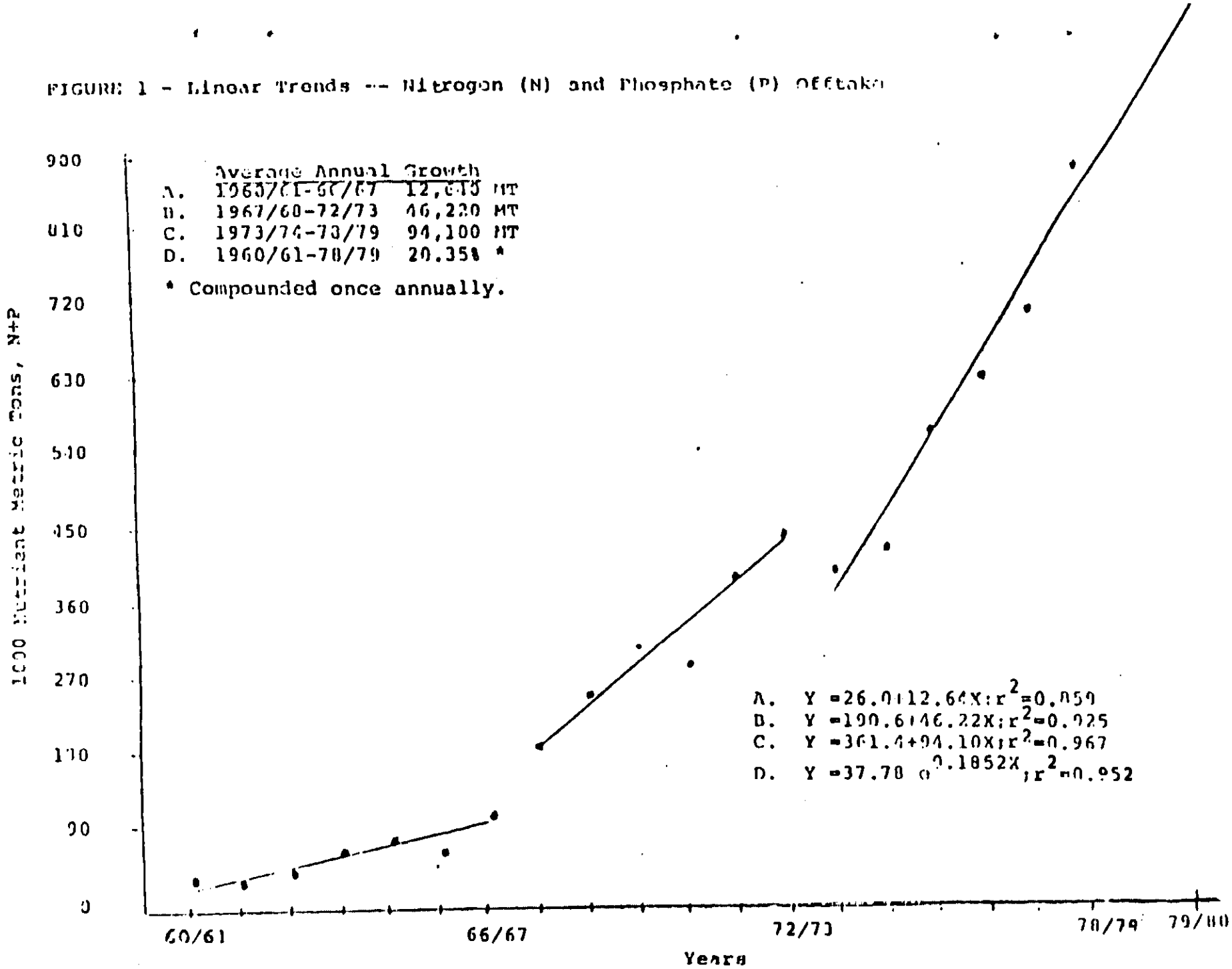


TABLE 13

Wheat Yield and Fertilizer Use Levels in
Kgs. Per Hectare (1952-53 through 1979-80)

Year	Wheat Yield Kgs/Hectare	Total Fertilizer Consumption (000 N. Tons)	Fertilizer Consumption for Wheat* (000 N. Tons)	Area Under Wheat Crop (000 Htr.)	Fertilizer Per Hectare of Wheat (N. Kgs.)
1952-53	627	1.00	0.48	3817	0.12
1953-54	867	14.80	7.10	4215	1.68
1954-55	747	14.10	6.77	4261	1.59
1955-56	747	6.60	3.17	4521	0.70
1956-57	775	9.00	4.32	4689	0.92
1957-58	775	16.40	7.87	4888	1.61
1958-59	812	18.00	8.64	4829	1.79
1959-60	802	19.40	9.31	4878	1.91
1960-61	820	31.40	15.07	4639	3.25
1961-62	812	37.50	18.00	4923	3.66
1962-63	830	40.20	19.30	5022	3.84
1963-64	830	68.70	32.98	5019	6.57
1964-65	867	87.20	41.86	5318	7.87
1965-66	756	71.05	34.10	5155	6.61
1966-67	812	116.77	56.05	5344	10.49
1967-68	1073	188.58	90.52	5983	15.13
1968-69	1074	246.91	118.52	6160	19.24
1969-70	1171	311.93	149.73	6229	24.04
1970-71	1083	283.21	135.94	5977	22.74
1971-72	1188	381.95	183.34	5797	31.63
1972-73	1246	436.50	209.52	5971	35.09
1973-74	1247	402.68	193.29	6113	31.62
1974-75	1320	425.49	204.24	5812	35.14
1975-76	1422	550.64	264.31	6111	43.25
1976-77	1430	631.28	303.01	6390	47.42
1977-78	1316	712.25	341.88	6360	53.75
1978-79	1485	879.51	422.16	6696	63.05
1979-80	1579	1153.27	553.57	6886	80.39

Source:

1. Pakistan Economic Survey, 1979-80.
2. Pakistan Fertilizer Statistics, NFDC, April, 1980.

*Assuming that 48 percent of the total fertilizer used in the country is consumed by the wheat crop.

TABLE 14

PRODUCTION, IMPORTS, OFFTAKE, AND LEVELS OF SUBSIDY ON FERTILIZER DISTRIBUTION

Year	Production			Imports				Offtake				Subsidy
	N	P	Total	N	P	K	Total	N	P&K	Total	Percentage increase/ decrease over previous year %	%
	--thousand N tons--											
1952-53	---	---	---					1.0	---	1.0		60
1953-54	---	---	---					14.8	---	14.8	---	50
1954-55	---	---	---					14.1	---	14.1	(-) 4.7	50
1955-56	---	---	---					6.6	---	6.6	(-)53.2	66
1956-57	---	---	---					9.0	---	9.0	36.4	58
1957-58	1.5	0.2	1.7					16.4	---	16.4	82.2	58
1958-59	7.5	0.4	7.9					18.0	---	18.0	9.7	40
1959-60	8.9	0.2	9.1					19.3	0.1	19.4	7.8	40
1960-61	9.8	1.6	11.4					31.0	0.4	31.4	61.9	50
1961-62	13.6	1.4	15.0					37.00	0.5	37.50	19.4	50
1962-63	40.3	1.1	41.4	31.1	---	---	31.1	40.0	0.2	40.2	7.2	25
1963-64	44.3	1.2	45.5	5.1	---	---	5.1	68.0	0.7	68.7	70.9	25-50
1964-65	48.1	1.5	49.6	3.2	---	---	3.2	85.0	2.2	87.2	26.9	50
1965-66	47.1	1.4	48.5	48.9	---	---	48.9	69.8	1.2	71.0	(-)18.6	20
1966-67	51.9	0.7	52.6	106.4	16.4	0.6	123.4	112.3	3.9	116.2	63.7	58
1967-68	50.1	2.9	53.0	103.2	49.3	---	152.5	176.9	12.5	189.4	63.0	29
1968-69	79.0	2.5	81.5	117.5	31.9	5.7	155.1	205.2	41.7	246.9	30.4	18
1969-70	128.6	4.1	132.7	288.6	6.2	---	294.8	274.9	37.9	311.9	26.3	25

PRODUCTION, IMPORTS, OFFTAKE, AND LEVELS OF SUBSIDY ON FERTILIZER DISTRIBUTION (Continued)

Year	Production			Imports				Offtake				Subsidy
	N	P	Total	N	P	K	Total	N	P&K	Total	Percentage increase/ decrease over previous year %	%
	—thousand N tons—											
1970-71	129.6	4.6	134.2	107.8	38.6	5.0	151.4	251.5	31.7	283.2	(-) 9.2	35
1971-72	215.1	4.9	220.0	70.4	—	—	70.4	344.0	38.0	382.0	34.9	—
1972-73	276.0	8.3	284.3	115.6	72.2	—	187.8	386.4	50.1	436.6	14.3	—
1973-74	299.9	4.0	303.9	224.5	103.9	6.3	334.7	342.6	60.8	403.5	(-) 7.6	5
1974-75 (Target)	294.0	11.0	305.0	148.0	47.0	—	195.0	442.0	58.0	500.0	23.9	
1979-80 (Target)												

Source:

1. Draft Outline of the Evaluation Report on the Fertilizer Distribution Program, Planning and Development Department, Government of the Punjab, Lahore (For Year 1956-57 to 1963-64).
2. Report of the Committee set up by the Fertilizer Board, September, 1974, Ministry of Industries, Government of Pakistan (For Year 1964-65 to 1972-73).
3. Feder Directorate of Agricultural Supplies, Ministry of Food and Agriculture, Government of Pakistan (For the Year 1973-74).

The large increase in consumption took place during the Second Plan period (1960-65), but still was much below the ambitious targets. The increase was attributed to:

a. ADC and private fertilizer trade efforts;

b. continued subsidy; (In 1962-63 the government reduced subsidies to 25 percent and sharply increased fertilizer prices, but in 1963-64 the subsidy was raised to 50 percent); and

c. continued extension efforts, highlighted by a large number of demonstrations.

Falcon and Gotsch note that in the Second Plan period fertilizer consumption was profoundly affected by the Government of Pakistan policy on fertilizer imports. They also note that the existence of a large black market indicated that consumption would have been higher if more adequate supplies had been available.[29] They calculate that 14 percentage points of the 27 percent increase in production during 1960-65 was attributable to water, five percent to fertilizer, improved seed, plant protection, and cultural practices, and seven percent to interactions.[30] They conclude that returns to farmers in terms of gross value of incremental product was about four times the money spent for fertilizer.[31] The black market and high return factors suggested the desirability of reducing subsidy levels and using the funds released thereby to increase supplies of fertilizer during the 1960-65 period.

Major reasons for the short falls in fertilizer consumption <u>from target</u> were cited as:

a. inadequate domestic fertilizer production;

b. inadequate allocations of FX, especially from the GOP's own FX, to finance imports, and unsatisfactory arrangements for distribution. It is notable that no fertilizer imports occurred in 1963.

Fertilizer Distribution Problems

USAID, in a July, 1966 report on the situation, noted that "since 1963-64, farmers have shown an increasing awareness that, next to adequate water supplies, fertilizer is a key to increased production. Fertilizer use has been encouraged by a liberal subsidy policy and widespread fertilizer demonstrations. Demand has suddenly expanded to the point where there are fertilizer shortages in place of over-supplies which characterized the earlier years.

"The Government of Pakistan has launched a program of accelerated food production with the objective of achieving self-sufficiency in basic food requirements. To the extent feasible, the United States Agency for International Development shares this desirable objective and will assist and cooperate with the Government in supplying the required inputs. In addition to providing larger inputs of water, improved seed and plant protection, a major emphasis is on greatly increased fertilizer use. Fertilizer supplies are to be augmented primarily through increased imports until West Pakistan's production can be expanded."

However, the report expressed doubts about the target of 140,000 nutrient tons of imports in 1966- 1967, double that of 1965-66. "The magnitude of the future fertilizer program in comparison with the past strongly suggests that a critical review be made of various systems of distribution with a view to facilitating the handling of the anticipated amount.

"Prior to January, 1964, WPADC handled all fertilizer for West Pakistan and distributed it through Rural Supply Credit Corporation (RSCC) and the associated Cooperative Service Societies. For the next eighteen months, fertilizer distribution was divided among West Pakistan Industrial Development Corporation (WPIDC), WPADE and RSCC. WPIDC was allotted 50 percent of the local production plus 25 percent of imports for distribution

through private stockists. WPADE distributed 50 percent of the imports and 25 percent of the local production. The remaining 25 percent of local production and 25 percent of imports were distributed through RSCC to some 2,000 Cooperative Service Societies."

"In July, 1965, the system was again changed and 75 percent of the total supply was allotted to RSCC for distribution through the various Cooperative Societies and all sales by WPIDC and WPADE through private stockists were terminated. WPADE was allotted 25 percent of the total for its use in project areas, and for the promotion of improved seed throughout West Pakistan."

"Since 1963, black market sales of fertilizer have flourished because supplies have not kept pace with an increased demand. Fertilizer has been sold at rates up to twice the government-established price of about Rs. 8.50 per bag of 25 pounds of nutrients. The weight of a bag of fertilizer is adjusted so that it contains approximately 25 pounds of nutrients. The government felt that price controls could be enforced to a greater degree if sales through private stockists were stopped and all outlets placed under direct government supervision. This brought about a change in policy in July, 1965."

"Fertilizer distribution in West Pakistan, since July, 1966, has been shared between the Agricultural Development Corporation and the Department of Cooperatives. The Mission has urged the GOP to restore private distributors of fertilizer to compete with public distribution. The government officials concerned have agreed to give this proposal serious consideration and the Mission believes this step will be taken in the autumn of 1966, when large-scale fertilizer imports are due for delivery and distribution. Private distribution remains in force in a large part of East Pakistan and the GOP is

committed to the extension of private distribution over the remainder of the Province, with the expectation of accomplishing this for the most part in FY '67."

Fertilizer Subsidy

The GOP plans to continue the 50 percent subsidy during FY '67. The Mission has concurred in the desirability of continuing the present fertilizer subsidy in FY '67, but contemplates an initial step toward elimination of the subsidy in subsequent years. A period of three to five years of declining subsidy will provide essential time for strengthening and expanding agricultural credit institutions and facilities."

Bulk Handling Facilities

Recent discussions with GOP officials associated with ports and railways have revealed a serious potential problem during FY '67 in receiving and distributing the greatly expanded imports of fertilizer, wheat, asphalt and lesser bulk commodities. There is a prospective bottleneck at the point of port unloading facilities and with respect to railway wagons and truck facilities for moving these shipments inland. It is likely that no more than 75 percent of the fertilizer imports scheduled for FY '67 will actually be delivered to farmers in that year. The Mission is aware of the impending problem and is giving it priority study."

In 1966 the USAID outlined measures needed during the Third Plan period to expand fertilizer use 200 percent as a growth target for 1970. These included:

a. a national farmer education program as to the value of balanced fertilizer use (N, p, k);

b. continuation of the policy of subsidizing fertilizer with periodic adjustment as appropriate (no phase-out indicated);

c. review or streamlining of the distribution system;

d. gradual transference of the distribution system to private hands, involving "a multiple private trade system" such as was used for kerosene;

e. provisional credit; and

f. assurance of supplies by provision of ample FX for imports.

U.S.Financing--Terms and Conditions

During the early 1960s, United States financing of fertilizer and pesticide imports was provided through large commodity import loans which ranged generally from $100 million to over $200 million per year. Between 1963 and 1967 over $100 million was provided to finance fertilizer and pesticide imports. Beginning in 1968, specialized import loans were made, mainly for fertilizer, as follows:

FY 1968	$25 million	
FY 1970	20 million	
FY 1973	20 million	
FY 1974	18 million	(called Agricultural Production)

In addition, fertilizer was available under a 1972 commodity import loan of $60 million. In FY '76 a commitment was made to finance $100 million in fertilizer imports. In FY 1976-1978 all this plus plant financing helped spark, fund and guide a tremendous rate of growth in fertilizer consumption. Consumption grew from about 1,000 nutrient tons in 1953-54 to over 1,100,000 nutrient tons in 1979-80, a more than thousand-fold increase. The absolute amount of increase accelerated year-by-year, with some breaks in growth due usually to shortages in supplies. In the most recent period, the much accelerated agricultural growth rate is fueled largely by fertilizer. Development terms and conditions have varied over time. The $25 million fertilizer import loan of October 20, 1967 was on

40-year terms, with a ten-year grace period, at one percent interest during the grace period and two-and-one-half percent thereafter. Conditions of the loan agreement were:

Special Covenants

SECTION 5.1. Development of Fertilizer. Whereas Borrower and A.I.D. consider the use of fertilizer of special importance to the agricultural and economic development of the Cooperating Country consistent with the objective of increasing agricultural productivity, Borrower in furtherance of its existing policy agrees to:

a. continue to take measures to attract domestic and foreign private capital and technical and management know-how in the production and distribution of fertilizer, implement the program for domestic manufacture of fertilizer in which the private sector both domestic and foreign, is given priority, informing potential investors of the terms and conditions of the policy and program of the Borrower relevant to the interests of such investors, with an objective of completing arrangements for domestic private sector fertilizer plants having an annual capacity of at least 450,000 nutrient tons additional to existing capacities at the earliest practicable time, and

b. continue the development and implementation of a program for improved distribution of fertilizer and pesticides within the Cooperating Country, including the transfer of responsibility for fertilizer distribution to the private sector including arrangements whereby private firms which have approved projects for domestic manufacture of fertilizer may develop a capability of distributing fertilizer within the Province in which they are located appropriate to their respective planned plant production.

SECTION 5.2 Use of Fertilizer. The Borrower agrees to use its best efforts to prevent the use of any fertilizer financed by the Loan in a manner which would increase exports or reduce imports of cotton."

These conditions on distribution appear to have brought real change to the distribution system. They opened the system to private as well as public distribution and thereby greatly increased the network, as Table 15 shows. Additional private investment also went into fertilizer production.

The March 1, 1969 Commodity Import Loan of $71 million again contained covenants on fertilizer distribution. The program specifically included commodity and related services for "agricultural and economic development." Pakistan undertook to "support fully liberalization of the system of imports during FY '69 and FY '70 and interim efforts to increase agricultural productivity."

On November 19, 1969 a loan of $20 million was signed to finance fertilizer imports. Item (b) was changed to read:

> b. continue the development and implementation of a program for improved procurement of fertilizer for and distribution of fertilizer within the Cooperating Country, including the transfer of responsibility for fertilizer distribution to the private sector and arrangements whereby private firms which have approved projects for domestic manufacture of fertilizer may develop a capability of distributing fertilizer within the province in which they are located appropriate to their respective planned plant production. Borrower shall examine prior to June 30, 1970, the feasibility of allowing private firms which have the capability to distribute fertilizer a fair opportunity also to procure fertilizer directly, and will make available to AID its study carried out in this regard.

TABLE 14

Production of Principal Crops, Number of Tubewells, Consumption of Fertilizer and Acres of High Yielding Varieties for Selected Fiscal Years

Fiscal Year	Crop Production				Number of Tubewells		Fertilizer	HYV of wheat
	Wheat (million tons)	Rice (million tons)	Cotton (million bales)	Sugarcane (million tons)	Public	Private	(thousand nut. tons)	(million acres)
1947-48	3.30	0.68	1.0	5.4			---	
1950-51	3.93	0.85	1.40	5.4		297	1.1	
1958-59	3.84	0.97	1.50	12.2		3,025	18.5	
1959-60	3.84	0.97	1.60	10.4		5,180	19.3	
1964-65	4.51	1.36	2.11	18.3		27,250	87.2	
1965-66	3.85	1.29	2.30	21.9			71.0	0.01
1966-67	4.26	1.31	2.60	21.6			116.0	0.25
1967-68	6.31	1.47	2.90	18.3	7,982	75,720	193.0	2.36
1968-69	6.51	2.00	2.96	21.6			284.4	5.89
1969-70	7.17	2.30	3.00	25.9	8,519	85,500	310.4	6.62
1970-71	6.37	2.16	3.05	22.8			283.2	7.73
1971-72	6.78	2.23	3.98	19.6	9,530	127,550[1/]	373.5	8.12
1972-73	7.32	2.29	3.95	19.6		118,066[2/]	436.5	8.34
1973-74	7.50	2.42	3.70	23.5		119,089	402.6	8.35
1974-75	7.55	2.28	3.57	20.9		140,000[3/]	425.0	8.58
1975-76	8.6[4/]	2.6	2.9	23.0[4/]			535.0	9.09

1/Cumulative - unpublished data, Pakistan Agricultural Census.
2/Cumulative - Year Book of Agricultural Statistics (Government of Pakistan) - 1975.
3/Source: Ch. M. Afzal, Director Research, ADBP.
4/Estimates.

TABLE 15

Production of Principal Crops, Number of Tubewells, Consumption of Fertilizer and Acres of High Yielding Varieties for Selected Fiscal Years

Fiscal Year	Crop Production				Number of Tubewells		Fertilizer	HYV of wheat
	Wheat (million tons)	Rice (million tons)	Cotton (million bales)	Sugarcane (million tons)	Public	Private	(thousand nut. tons)	(million acres)
1947-48	3.30	0.68	1.0	5.4			—	
1950-51	3.93	0.85	1.40	5.4		297	1.1	
1958-59	3.84	0.97	1.50	12.2		3,025	18.5	
1959-60	3.84	0.97	1.60	10.4		5,180	19.3	
1964-65	4.51	1.36	2.11	18.3		27,250	87.2	
1965-66	3.85	1.29	2.30	21.9			71.0	0.01
1966-67	4.26	1.31	2.60	21.6			116.0	0.25
1967-68	6.31	1.47	2.90	18.3	7,982	75,720	193.0	2.36
1968-69	6.51	2.00	2.96	21.6			284.4	5.89
1969-70	7.17	2.30	3.00	25.9	8,519	85,500	310.4	6.62
1970-71	6.37	2.16	3.05	22.8			283.2	7.73
1971-72	6.78	2.23	3.98	19.6	9,530	127,550[1]	373.5	8.12
1972-73	7.32	2.29	3.95	19.6		118,066[2]	436.5	8.34
1973-74	7.50	2.42	3.70	23.5		119,089	402.6	8.35
1974-75	7.55	2.28	3.57	20.9		140,000[3]	425.0	8.58
1975-76	8.6[4]	2.6	2.9	23.0[4]			535.0	9.09

[1]/Cumulative - unpublished data, Pakistan Agricultural Census.
[2]/Cumulative - Year Book of Agricultural Statistics (Government of Pakistan) - 1975.
[3]/Source: Ch. M. Afzal, Director Research, ADBP.
[4]/Estimates.

The following was substituted for a prior pesticides covenant:

c. Borrower will continue to analyze the effects of the continued subsidization by the Borrower of fertilizer prices and will make available to AID prior to June 30, 1970, studies carried out in this regard.

A new section was included:

SECTION 5.2 Fertilizer Programming. Borrower agrees to continue to take necessary action to ensure the orderly procurement of fertilizer. In this regard, the Borrower shall collect and submit to AID, not less often than quarterly, the most current information prepared by it and by other relevant agencies in the Cooperating Country concerning (a) current and projected levels of fertilizer stocks, (b) current and projected domestic production of fertilizer, (c) past and estimated future consumption of fertilizer, and (d) current and expected arrangements for the procurement and financing of fertilizer from all external sources.

On September 15, 1972, a $60 million commodity import loan was made to Pakistan. The principal covenants with respect to agriculture and particularly production were:

SECTION 6.1 Agricultural Research. Borrower will continue to seek new ways to increase agricultural productivity by providing adequate funds for agricultural research and by improving coordination among organizations engaged in agricultural research.

SECTION 6.2 Procurement of Fertilizer. The borrower agrees to take necessary actions to ensure the orderly procurement of fertilizer. The details of the fertilizer procurement procedure will be indicated in an implementation letter.

SECTION 6.3 Procurement of Pesticides. The Borrower agrees to take necessary actions to ensure the orderly procurement and ecologically sound use of pesticides. The details of such procedures will be indicated in an implementation letter."

On February 28, 1973 AID made a loan of $20 million to the GOP to finance imports of fertilizer, with 40-year repayment terms and a ten-year grace period on payment. Development conditions were:

> **SECTION 5.1** Fertilizer Policies. Recognizing the importance of fertilizer in increasing agricultrual productivity, Borrower will:
>
> a. in order to reduce its dependence on imports, endeavor to increase domestic production of fertilizer by implementing policies which encourage capital investment in new fertilizer facilities.
>
> b. in order to make efficient use of the established distribution infrastructure, ensure that allocations of fertilizer are made to all principal distributors on an equitable basis.
>
> c. in order to rationalize fertilizer pricing, continue to review its policies with respect to:
>
> i. ex-factory prices for domestic production;
> ii. subsidies to farmers, and
> iii. fixed end-use prices.
>
> d. in order to overcome chronic shortages of fertilizer, develop procurement plans which take into account the lead time for financing, procurement and shipping and which provide for adequate in-country stocks. Such plans shall include, for each type of fertilizer to be procured:
>
> i. estimated consumption of fertilizer;
> ii. fertilizer stocks;
> iii. arrangements for fertilizer procurement from other sources; and
> iv. projected domestic production.

Self-help statements in the PL 480 agreements generally expressed similar objectives and contained commitments to expand the distribution system by freely allowing private sector entry.

In August 1973, following disastrous floods in Pakistan, AID agreed to finance imports of production inputs to help make up some of the losses suffered. However, at the stage when commitments were about to be made, the Punjab, which accounted for two-thirds of agricultural production and fertilizer use, "Provincialized" the fertilizer distribution system. This was a clear violation of 5.1 (b) of the February, 1973 agreement.

Concerned that the additional inputs could not be handled by the short staffed inexperienced Punjab public distribution system, AID declined to make a final obligation of the $18 million loan until assured that an adequate system of distribution would be in place. The Punjab Government soon decided to permit re-entry of private distributors through a licensing system, and the loan was signed in November. Discussions concerning additional improvements in the system continued over the next two years, when a provision of the loan agreement which called for the completion of improvement plans before letters of commitment would be issued.

With some input from AID, the GOP prepared details of a fertilizer strategy with several major integrated elements:

1. A rapid build-up of fertilizer use to achieve agricultural production goals. Targets were prepared. This rapid growth in demand was to be achieved by favorable fertilizer-crop price relationships, assured access of all farmers to fertilizer by rapid, mainly private, expansion in the distribution system, and improved research and extension of information on fertilizer use.

2. Construction of plants to meet demand projected for the 1980s.

3. In the interim, assurance of abundant supplies and a buyer's market by liberal and timely imports.

4. Incentive fertilizer/crop pricing.

To help achieve this end, AID agreed to:

a. finance research through combined dollar loans and grants of approximately $9 million, plus a large grant of local currency,

b. provide a dollar loan of $100 million in three annual tranches to finance imports of fetilizer in FY 1976-78.

c. assist in financing fertilizer plant construction. ($40 million was approved in 1975 for the Fauji fertilizer factory),

d. assist in carrying out research to identify and quantify constraints (principally those faced by farmers) in expanding fertilizer use, in order to provide a sound scientific basis for further measures to expand demand for fertilizer. (The study was carried out by the National Fertility Corporation with a grant from AID. The USAID agriculture staff consulted on study plans and analytical procedures).

Fertilizer import scheduling, distribution, fertilizer/crop price relationships and fertilizer plant financing became the topics of frequent GOP/AID discussions. The necessity for rapid expansion of fertilizer use was widely recognized in and outside Pakistan, and a large number of international donors joined in financing both imports and new production capacity along with expanded and improved distribution. A major revision in price relations was initiated beginning in 1974 to make the use of ferlitizer attractive to farmers, (Tables 16-19).

The task of coordinating donor inputs fell mainly on the Ministry of Agriculture. Although the various donor contributions were not formalized in the manner of the Indus Basin Development effort, the effects have been much the same in terms of high-level continuing focus on the strategy and its execution. The results, as noted, have been impressive; fertilizer consumption has grown at an annual rate of nearly 100,000 nutrient tons per year from 1973 to 1980 (from about 400,000 nutrient tons to over 1.1 million estimated for the year ending

June, 1980). With about 50-60 percent of the fertilizer applied to wheat, this rise in fertilizer use, accounting for an increase of about 3.5 million tons in wheat production, is by far the most significant cause for the rapid growth in wheat production in the 1970s. It also accounts for much of the growth in production of other crops. In 1978 in connection with U.S. assistance, the GOP created the National Fertilizer Development Center to conduct research and analysis and assist in guiding and coordinating a national fertilizer strategy.

Pesticides

Plant protection, which is of particular importance on cotton production, appears never to have been satisfactorily handled. The record is replete with official expressions of concern about this problem and of greater determination by the Government to do something about it. It now appears, as of 1980, that the Government is prepared to remove itself from all or most pesticide operations and subsidies and turn them over to private service entities and farmers themselves. Government agencies will concentrate on research, regulation, and extension services.

Through FY 1969, AID financed about $40 million worth of pesticides, of which an estimated $13 million was destined for West Pakistan. With a heavy build-up of pesticide supplies in 1970, financing for public sector distribution was discontinued. After 1970, with private licensing in Punjab, $1.75 million worth of pesticides were funded for private import. The 1972 commodity loan agreement committed Pakistan to ensure orderly procurement and ecologically sound use of pesticides. In the same year an intensive aerial spray program directed primarily at rice borer control was carried out as a part of a flood recovery program. When spraying was discontinued the residual spray supplies in the country were funded under loan

TABLE 16

SUPPORT PRICE OF RICE IN PAKISTAN

Year	Basmati (Fine Variety)	Permal/ Hansraj and Mushkin	Begmi	Kangni	Joshi	Irri White 25% Well Milled	Irri 30% F.A.Q.	Irri White 55% F.A.Q.
			---in rupees per maund---					
1960-61	24.00	19.00	16.00	16.00	15.00	---	---	---
1961-62	25.00	18.00	16.00	16.00	15.00	---	---	---
1962-63	26.00	18.00	16.00	16.00	15.00	---	---	---
1963-64	28.00	18.00	16.00	16.00	15.00	---	---	---
1964-65	28.00	18.00	16.00	16.00	15.00	---	---	---
1965-66	28.00	17.00	16.00	16.00	15.00	---	---	---
1966-67	28.00	17.50	17.50	17.50	17.00	---	---	---
1967-68	31.00	20.00	20.00	20.00	18.50	---	---	---
1968-69	38.00	20.00	20.00	19.00	18.50	21.00	20.25	19.00
1969-70	35.00	20.00	20.00	19.00	18.50	21.00	20.25	19.00
1970-71	32.00	20.00	20.00	19.00	18.50	21.00	20.25	19.00
1971-72	38.00	20.00	20.00	19.00	19.50	21.00	20.25	19.00
1972-73	46.00[1/]	21.00	21.00	20.00	20.50	21.00	20.25	19.00
1973-74	62.00	27.00	27.00	26.00	26.00	27.00	27.00	27.00
1974-75	90.00		40.00	39.00	39.00	40.00	40.00	40.00

1/ At sowing time, the support price was fixed at Rs. 42.00 per maund. One maund = 82.286 pounds.

Source: Agriculture and Food Section, Planning Division, Government of Pakistan, Islamabad.

TABLE 17

Relationships Between the Procurement Prices of IRRI and Basmati Rice Varieties and Sale Price of Fertilizer

Year	Procurement Price of IRRI per md.	Procurement Price of IRRI per lb.	Sale Price of Urea (bag of 110 lb.) 50.6 lbs. of N	Sale Price of 1 lb. of N	Lbs. of Milled Rice Needed to Buy 1 lb. of N
			---rupees---		
			BASMATI Rice (Continued)		
1965-66	28.00	0.34	14.00 (July - Oct., '65)	0.28	0.82
		0.34	15.00 (Oct., - June, '66)	0.29	0.85
1966-67	28.00	0.34	25.00	0.49	1.44
1967-68	31.00	0.38	25.00 (July - Aug., '67)	0.49	1.29
		0.38	26.00 (Sept., '67 - June, '68)	0.51	1.34
1968-69	38.00	0.46	26.00	0.51	1.11
1969-70	35.00	0.43	26.00	0.51	1.19
1970-71	32.00	0.39	28.50	0.56	1.44
1971-72	38.00	0.46	28.50	0.56	1.22
1972-73	46.00	0.56	28.50	0.56	1.00
		0.56	35.00	0.69	1.23
		0.56	42.00 (March - June, '73)	0.83	1.48
1973-74	62.00	0.75	42.00	0.83	1.11
		0.75	55.00	1.09	1.45
		0.75	75.00	1.48	1.97
1974-75	90.00	1.09	75.00	1.48	1.36

TABLE 18

Relationships Between the Harvest Price of Maize and Sale Price of Fertilizer

Year	Average Harvest[1] Price of Maize per md.	per lb.	Sale Price Urea (bag of 110 lb.) 50.6 lbs. of N	Sale Price of 1 lb. of N	Lbs. of Maize Needed to Buy 1 lb. of N
1961-62	12.37	0.15	12.00	0.23	1.53
1962-63	14.27	0.17	24.00	0.47	2.76
1963-64	15.43	0.19	24.00 (July - Dec., '63)	0.47	2.76
			14.00 (Jan. - June, '64)	0.28	1.47
1964-65	14.61	0.18	14.00	0.28	1.55
1965-66	14.83	0.18	14.00 (July - Dec., '65)	0.28	1.55
			15.00 (Oct. - June, '66)	0.29	1.61
1966-67	15.96	0.19	25.00	0.49	2.58
1967-68	16.33	0.20	25.00 (July - Aug., '67)	0.49	2.45
			26.00 (Sept., '67 - June, '68)	0.51	2.55
1968-69	15.00	0.18	26.00	0.51	2.83
1969-70	15.29	0.19	26.00	0.51	2.68
1970-71	15.97	0.19	28.50	0.56	2.95
1971-72	18.41	0.22	28.50	0.56	1.93
1972-73	23.70	0.29	28.50 (July - Sept., '72)	0.56	1.93
	23.70	0.29	35.00 (Sept., '72 - March, '73)	0.69	2.38
1973-74	25.50	0.31	42.00 (July - Aug., '73)	0.83	2.68
		0.31	55.00 (Aug., '73 - April, '74)	1.09	3.52
		0.31	75.00 (April, '74 to date)	1.48	4.77

Relationships Between the Harvest Price of Maize
and Sale Price of Fertilizer

Year	Average Harvest[1/] Price of Maize per md.	per lb.	Sale Price Urea (bag of 110 lb.) 50.6 lbs. of N	Sale Price of 1 lb. of N	Lbs. of Maize Needed to Buy 1 lb. of N
1974-75	44.00 (Nov., '74)	0.54	75.00	1.48	2.74

[1/]Average harvest prices of maize for Multan, Lyallpur, and Mardan Markets.

TABLE 18

Relationships Between the Procurement Prices of IRRI and Basmati Rice Varieties and Sale Price of Fertilizer

Year	Procurement Price of IRRI per md.	Procurement Price of IRRI per lb.	Sale Price of Urea (bag of 110 lb.) 50.6 lbs. of N	Sale Price of 1 lb. of N	Lbs. of Milled Rice Needed to Buy 1 lb. of N
			---rupees---		
			IRRI Rice		
1969-70	21.00	0.26	26.00	0.51	1.96
1970-71	21.00	0.26	28.50	0.56	2.15
1971-72	21.00	0.26	28.50	0.56	2.15
1972-73	21.00	0.26	28.50 (July - Sept., '72)	0.56	2.15
			35.00	0.69	2.65
1973-74	27.00	0.33	42.00 (July - Aug., '73)	0.83	2.52
		0.33	55.00 (Aug., '73 - March, '74)	1.09	3.30
		0.33	75.00 (April, '74 to date)	1.48	4.48
1974-75	40.00	0.49	75.00	1.48	3.02
1978	46.00	0.55	68.00	1.34	2.44
1979	49.00	0.60	63.00	1.24	2.06
1980	63.00	0.76	63.00	1.24	1.63
			BASMATI Rice		
1961-62	25.00	0.30	12.00	0.23	0.77
1962-63	26.00	0.32	24.00	0.47	1.47
1963-64	28.00	0.34	24.00 (July - Dec., '63)	0.47	1.38
		0.34	14.00 (Jan., - June, '64)	0.28	0.82
1964-65	28.00	0.34	14.00	0.28	0.82

155 ($455,000). Not long after, AID agreed to finance some insecticide for malaria control.

The United States also made technical inputs on pesticide use. United States support of pesticide has been constrained by a number of issues:

- The continued public sector domination of pesticides and the common view of United States officials that the responsible public agencies were handling pestcides poorly. United States officials argued repeatedly for more private initiative in pest control, for letting farmers handle their own pest control, and for permitting more private enterprise involvement in pesticide distribution and custom application.
- Debate over ground versus aerial spraying.
- Safety, and standards of adequate controls and safety measures.
- Handling of import scheduling and stock control.

A somewhat muted factor in all this has been U.S. reluctance to promote cotton production in Pakistan. Pest control is particularly important for cotton. This factor does not appear to have heavily influenced fertilizer decisions, but then some pesticides are more crop-specific. Still, the October, 1967 agreement obligated Pakistan to avoid use of U.S. financed fertilizer "in a manner which would increase exports or reduce imports of cotton".

Livestock Production Inputs

Livestock production is a major industry in Pakistan closely integrated with crop production. Animals furnish much of the power, manure, and fuel for cooking, and about 30 percent of the total value added in agriculture, in the form of meat, milk, hides and fiber. Yet the livestock industry has received relatively little attention from the government. Statistics on livestock numbers and production are much poorer

than for even minor crops, but there is no question that Pakistan has large numbers of domestic animals and that the number is increasing steadily. Estimates in thousands of head are shown below:

	1960	1980
Cattle	14,570	15,000
Buffalo	7,946	11,500
Sheep	9,786	26,200
Goats	7,260	30,200

In addition to the above, there are probably two million horses, donkeys, mules, and camels in Pakistan, used mainly for draft purposes, but also contributing to meat supply. A substantial number of buffalo are kept for milk, as are some of the cattle, sheep, and goats.

Data on production from this sizeable herd are not available, but sketchy available data suggests that production of meat, milk, and fiber per head is only a small fraction of United States levels (typically about 15-20 percent). Much should be possible in increasing output, but livestock production, especially meat, has been adversely affected by price controls and other disincentives. The official retail prices of mutton and beef are currently about 90¢ and 32¢ per pound, respectively. Though these prices are rarely enforced, their existence acts as a strong constraint at the farm level. Recently, lamb was selling at about 23¢ a pound and beef at 45¢. Goat meat typically sells almost interchangeably with lamb. In FY '80 imports of dairy products cost $38 million for about 400,000 M.T. fresh milk equivalent. Reflected in the rapidly growing import of vegetable oil is failure of domestic milk and milk fat production to keep up with demand.

Programs for development of livestock have typically been restricted to efforts to improve breeds by importing improved sires of semen, and to very small scale range management or

forage improvement programs. Modern poultry systems have been developed for both broilers and eggs, greatly increasing output in recent years. Veterinary services are provided by the government on very limited scale. There is little private practice of veterinary medicine for farm animals.

The United States has assisted livestock development efforts in a small way, including technical assistance on forage (especially range land) and livestock improvement, veterinary medicine, animal husbandry and dairy technology. It has also provided some help on cattle and sheep breed improvement. Probably more significant has been the assistance, mainly through Cooley loans, in establishing domestic production of pharmaceuticals and helping develop a modern poultry industry, but, there too, help has been small compared with the crop sector assistance. The United States appears to have made little, if any, concerted effort to encourage the government to offer adequate incentives to livestock producers or to overcome the serious deficiencies in marketing.

Milk collection and distribution suffer from inadequate investment and poor organization, to the detriment of both consumers and potential small-scale producers. In discussions on research, the United States has argued for more attention to livestock and forage, and for closer integration of livestock research with crops, as reflected in private forum situations. Central and Provincial government emphasis on livestock development has focused on government livestock breeding and production operations, and little effort has been expended on stimulating and assisting potentially more efficient private operations. To the extent that such programs pre-empt land, financial resources and markets, they reduce opportunities and incentives for low-income farmers.

In general, other donors have provided more support to government services and government farms than has the United

States. If the United States had provided the sustained level of input it accorded to some other areas, the Pakistan livestock industry might now be much more productive and more able to meet domestic meat, milk and fat requirements.

Machinery and Equipment

Major United States support to mechanization of Pakistan agriculture has been in the form of inputs into tubewell development, supply of electrical energy to tubewells and, supply of larger equipment for land formation. Some inputs also went into machinery pools in the 1950s and 1960s. In more recent years, the principal inputs were aimed at helping develop domestic production of land leveling equipment, and support of the IRRI Contract, primarily in modifying IRRI and other small scale tillage and rice planting and threshing machines to cope with Pakistan's conditions. Inputs into private tubewell development were mostly made indirectly through general commodity import loans. Help in developing public sector well-drilling capacity did have an impact, and more recent efforts to develop domestic production of land leveling and small scale farm equipment, especially threshing machines, are also reported to have been very effective. All in all, however, results on public sector machinery operations and on conservation and reclamation programs have at best been disappointing.

U.S. Food Aid Financing to Pakistan; Terms and Impacts: 1952-1980

This section summarizes twenty-eight years of food aid provided by the United States to Pakistan. Concessional and grant funding of food commodities identified as food aid has totaled over $2,000 million since 1952 (Table 1). Since 1971, PL 480 financing has exceeded United States bilateral development assistance financing.

Due to gaps in records and time limitation it has not been possible to identify fully all amounts, terms and particularly changes embodied in a variety of instruments-- agreements, letters, memoranda, minutes, etc. Self-help reporting was particularly difficult to find; in part, perhaps because it was not systematically carried out.[32]

The first food aid agreements were for $15 million under MSA in 1952 for "drought relief", and $74 million under PL 77 in 1953 for "famine relief". The food shortage requiring relief was in significant part caused by a shift of resources away from food grain to more profitable cotton in West Pakistan. Thereafter, with enactment of PL 480, food aid to Pakistan became a continuing fact of life. It rapidly rose to a level of $135 million in 1960, while Pakistan's agriculture, particularly food production, stagnated under policies which discouraged private initiative and provided little quick return on public investment. Policies, especially price policies, were improved in the years beginning about 1960 and investments made in irrigation and fertilizer began to pay off.

Some analysts associate public investment and improved price incentives in 1959-60 with PL 480 financing. Still, PL 480 sales continued to increase (after a 1961 dip), culminating in a record 1962 U.S. commitment of $621 million over four years, not conditioned on any self-help requirement. The end of the agreement coincided with the 1965 Indo-Pakistan War, (a consequent drastic reduction in U.S. aid) and the beginning of a severe two-year drought in the subcontinent. These events brought a sharp awakening to the weaknesses of agriculture in the subcontinent and to the need for specific terms on recipient country development efforts. Such terms were set forth in considerable detail in the next large agreement.

Meanwhile, somewhat improved farm policies, continued public and private water development, expansion in fertilizer use,

and introduction of high yielding varieties were combining to spark an unprecedented growth in output, especially of wheat, in the late 1960s. By the end of the decade grain self-sufficiency seemed a near reality. But there was still the large and growing vegetable oil deficit to solve and, for six years after 1967, wheat and rice prices were held almost static, while costs and cotton prices rose. Political and economic chaos, beginning about 1969, led to a decline in overall growth. Agriculture followed suit as price relationships deteriorated. Food aid continued at a high level.

Higher world food prices and lower United States PL 480 availabilities beginning in FY 1973 led to increased food supply concerns in Pakistan. Further United States PL 480 and economic aid policies focused on the growing wheat and vegetable oil import requirements and the need to improve the agricultural development environment. By 1974-75, more favorable fertilizer/crop price relationships had been established, fertilizer supplies were stepped up, and the distribution system was improved. Fertilizer consumption expanded rapidly, going from 400,000 nutrient tons in the mid 1970s to 1,100,000 nutrient tons by 1979-80. This fueled a new agricultural boom, which, as of 1980, offers the prospect of food self-sufficiency and greater exports, as a result of record wheat, rice and cotton crops.

Meanwhile, vegetable oil imports have continued to rise. Starting at zero at partition, they now form one of the largest foreign exchange drains (currently $250 million per year and growing at 10-15 percent per year). Recent PL 480 discussions and negotiations have centered largely on development and implementation of a strategy to reverse or at least reduce the alarming rate of growth in costs of vegetable oil imports. In general, the implementation phase has been disappointing, as has self-help reporting.

What follows are some observations and conclusions with respect to food aid operations and impacts, and outstanding issues for consideration on future PL 480 agreements.

Observations on Food Aid Operations and Their Impact

Several conclusions, some rather tentative, evolve from review of the twenty-eight years' experience in Pakistan with United States food aid.

1. The financial terms and conditions of U.S. assistance have varied greatly over time with respect to currency at repayment and repayment terms. At the one extreme, sale was made in local currency, a part of which was granted back for development, thus, that part became a full grant. At the other extreme, local currency accrued to the United States Government, which used it to cover its operating costs and to finance its special interest activities in Pakistan; these amounts became in effect, a 100 percent foreign exchange cost (or loss of foreign exchange earnings) to the GOP. In recent years repayment has been in dollars with 40-year, low interest, ten-year grace period terms, which are highly concessionary, but a small cash down payment has been required which represents full and immediate foreign exchange cost.

2. Several concepts and precedents apparently were established by early terms and conditions which continue in varying forms in later agreements.

   a. the transfer of the commodities may or may not involve foreign exchange savings, but, as sold, they do augment internal financial resources available to the government of Pakistan.

   b. the incremental financial resources thus mobilized represent a new asset within the country to which the GOP and United States Government both have a claim. However, the United States, as the source of origin of the resource, had the higher claim, at least during the period of rupee payment. As a consequence of this undefined joint claim, funds accruing from sales should be maintained in a separate account and jointly programmed. In early days immediate United States Government needs for

rupees had to be met first. After the shift to dollar funding, the local currency was viewed as a GOP asset.

c. the availability of grant or concessional loan financing of such commodities is uncertain and measures should be taken to obviate the need for such aid. Consequently, one of the priority candidates in programming of the resources generated should be to overcome problems leading to the requirement for grant or concessional financing of such commodities.

d. the United States, as the donor and co-claimant on the resources generated, is entitled to receive appropriate reports and to check on uses made of resources.

3. Handling, accounting and use of local currency varied widely, it was often reprogrammed long after the agreements were signed, usually from United States uses to Pakistan development. The variations in uses even within short periods suggest that inadequate analysis and little advance thinking went into local currency programming. It often seemed to reflect the expediencies of the moment. Much of the local currency appears well used, but much not so well used from the perspective of Pakistan's development priorities. For example, some was used to support programs outside Pakistan, and some for special funding of American businesses in Pakistan, and market development for American commodities. Some of the local currency, e.g., for United States uses, has been deposited in United States financial institutions at zero interest, or at less than full going interest rates.

4. Viewed from Pakistan's development perspective, the record on use of local currency appears to be considerably better now than in early years. As a result, the current long term, ten-year grace period and low interest dollar-repayable loans (with high inflation) are less of a burden on Pakistan than the earlier rupee financing with much of the local currency serving United States interests. Clearly, much better attention should have been paid to local currency programming. Agriculture's share in the allocation of resources generated has been very spotty. The most notable contribution was allocation of resources to the development of the irrigation system, including ground water, which has been very important.

5. Programming of food aid in many cases appears not to reflect a serious concern over the impact on agricultural development or need for the country ultimately to increase its capacity for self-sufficiency. In the FY 1953 financing of commodities under PL 77, there was an expression of concern over the food deficit and the need to increase production to avoid future major shortages. Such concern, if existing, is very much muffled thereafter, until about 1966-67 when the drought awakened a general concern over the food situation in the sub-continent and PL 480 legislation included a requirement for self-help. Even the huge $621 million multi-year (FY 1962-65) agreement did not reflect concern about either Pakistan's growing reliance on PL 480 or the impact the large imports might have on local production. The agreement was faulty in its failure to impose agricultural development requirements, in its programming of local currency, and in its broad listing of commodities, which showed a lack of appreciation of the needs and priorities in Pakistan. It appears to reflect more the importance of the sale in the United States than of the financing in Pakistan. It is difficult to determine on balance whether the availability of PL 480 funded commodities led the government to seriously reduce its agricultural efforts (investments and incentives). During the 1950s it probably contributed to diversion of public resources, lessening of financial incentives, and a false sense of complacency and security about food. During the early 1960s the Ayub administration probably did somewhat less than it otherwise would have done for food production. For almost two decades, food aid supplied resources for development but only a small part apparently went to agriculture. Some authors contend that one of the impacts of PL 480 funds and the security it offered, even in the villages, was that farmers shifted some land from basic foods to cash crops, notably to cotton, in the 1950s, 1960s and early 1970s. Food aid also probably stimulated demand for vegetable oil, thereby giving rise to a deficit to what should have been, but apparently was not, seen as reaching alarming levels in the 1960s and early 1970s.

On the more positive side, PL 480 appears to have been a factor in periodic remissions from onerous forced sale of wheat by farmers to meet ration shop distribution goals, especially in the early Ayub administration.

6. The serious introduction of self-help requirements, beginning about 1966-67, was an important step forward, although resented by some officials in Pakistan. Self-help has become more closely related to and integrated with other elements of U.S. development assistance. One notable result of the requirement has been to stimulate and support the development of a strategy for reducing or at least slowing the growth in dependence on imported edible oil. However, the lack of self-help reporting makes it difficult to document with precision the effects of this effort. To date, implementation of the vegetable oil strategy has been disappointing. Some additional research has been initiated, but little has been done to improve price incentives for promising non-traditional oilseeds or marketing and processing of oilseeds in general.

7. There is considerable argument about the net effects of PL 480 financing on the development of agriculture, particularly of those commodities financed which presumably were in deficit at the time. In the 1950s the Government appeared little concerned about agriculture, and United States food aid enabled it to ignore perennial shortfalls in production, especially of wheat, and to impose onerous price controls, internal trade restrictions, and export taxes on different commodities. Availability of PL 480 is credited by Falcon and Gotsch with providing local currency for irrigation development, and, after 1959, needed support for improved price incentives.[33] Others blame surplus wheat supplies for serious distortions in local markets and for depriving local producers of markets by monopolizing large mills to handle United States (surplus) wheat.[34] With rapid growth in government operations using imported wheat, this likely continues to be a problem.

Considering the low priority attached to agriculture relative to industry and infrastructure until the mid 1960s, and the amount of PL 480 generated local currency going to agriculture, the net effect of food aid appears to have been negative for agriculture for the first, fifteen years of U.S. aid. It was not until the early 1970s that a combination of reduced United States PL 480 supplies and greater attention to development terms and policies in both PL 480 and economic assistance appear to have tipped the scales in the other direction. Until very recently, the availability of food aid, in addition to permitting greater emphasis on other sectors, has also permitted

some intrasectoral distortions favoring cash crops, such as cotton, over food crops, such as wheat.

8. It is clear that the availability of PL 480 wheat and vegetable oil has been a factor in the increased government involvement in wheat (atta) and vegetable ghee processing and distribution operations. Until near the mid 1970s, justification for amounts of wheat imports and concessional financing was based primarily on ration and other government distribution targets and expected domestic procurement, not on aggregate supply and demand.

   Due to delays in programming, buying and shipping, commodities intended to meet a particular crisis, such as drought or cyclone-induced crop reduction, often arrived only many months later. This may have been a factor in the way food aid agreements came to be handled. Since PL 480 did not lend itself adequately to meeting such emergencies, it came to be treated as just another resource transfer--a transfer which could not be made unless there was a domestic need for the imported resources. As the terms changed, it became an increasingly important means of mobilizing domestic local currency resources to meet budgetary needs.

9. Because of the lack of a needs or income test on ration cards and the availability of non rationed but subsidized foods, high- and low-income families have equal access to food. Practically, people in more rural areas generally are at a disadvantage relative to urban consumers. The differentiated and lower esteem of ration atta versus non ration atta and flour, and of vegetable ghee versus milk fat, has tended somewhat to tilt supplies to lower income groups at least at lower price differentials. Overall, the government, in handling locally subsidized and United States concessionally-financed foods, has done less than it could have done to reduce income and nutritional imbalances. Though not a part of U.S. food aid policy with respect to refined sugar versus gur, which in effect promotes the former at the expense of the latter, it is subject to the same criticism.

Major Outstanding Issues

There are several key issues that should be addressed with respect to future PL 480 financing.

1. Probably most important is the question of how to ensure that PL 480 financing helps reduce Pakistan's dependence on aid, especially food aid.

2. This is not to say that Pakistan must or should become self sufficient in all major agricultural commodities, especially vegetable oil. But what are the relative economics, comparative advantages and export/import potential for different comodities? To what extent should Pakistan seek self sufficiency in currently deficit commodities as opposed to export expansion in different commodities to pay for imports? How can Pakistan deal with the rapidly growing vegetable oil import bill? How far and how fast should and can Pakistan economically go in increasing domestic production of vegetable oil? What should be the specific elements of the strategy and the appropriate schedule for implementation? To what extent should and can Pakistan produce and market other foods in the rich and, for Pakistan, potentially lucrative, Gulf market? How can United States PL 480 resources be used to assist in refining and expeditiously implementing an appropriate strategy?

3. In addition to the issue of reducing long term dependence on food aid, there is the issue of how to reduce vulnerability to year-to-year fluctuations in domestic production and to periodic world shortages and high prices. Illustratively, Pakistan's production of wheat has dropped about a million tons from the trend line once in about ten years. How far should it go in establishing stocks to meet such situations? Where should they be held? Would it be better to make advance contingency purchases or to stock abroad? Should such efforts be related to or become a part of a regional or world security program? How far can and should the United States go in supporting alternative approaches? A similar problem exists for vegetable oil and sugar. However, since these represent a much smaller part of total caloric intake of the population their fluctuations are of less critical importance nutrinally, though they may be politically significant.

4. How can Pakistan program local currency proceeds to achieve specific development objectives? When commodities were sold for rupees, the local currency was programmed largely by the United States, much of it to serve United States interests. With the shift to long term dollar loans local currency proceeds have gone into the Pakistan treasury and been attributed, evidently with no assurrance of any shifts in allocations. Some middle ground would seem more appropriate if these resources are to contribute meaningfully to specific self-help objectives. If Title I is continued, future food aid funding might be tied to more specific allocation of local currency and/or reporting of monitoring and of self-help.

5. Multi-year funding appears highly desirable in achieving more serious consideration of development related commitments, their execution and reporting, and better scheduling of food imports. With multi-year funding commitments, GOP development commitments, to be included, would have to be arrived at through careful joint analysis and serious discussions of alternatives. Can such discussions be carried out at sufficiently high levels so that agreements reached would be accepted without undue delay by the relevant agencies of the two governments?

6. Title III versus Title I. There is little doubt, given Pakistan's balance of payments situation, income levels and growing dependence on concessionally financed vegetable oil imports, that Pakistan should be a candidate for Title III funding. However, given Pakistan's past slowness in moving on the vegetable oil problem, can we now anticipate an acceptable effort in the future? If Title III funding were undertaken, where would the local currency be used and in what amounts? Could it become a part of a multi-donor unsegregated contribution to a major program or problem area, e.g., water management, health and population, credit, research and extension, oilseed production and processing, grain storage?

7. A basic question is whether the United States should reduce food aid <u>per se</u>, and use an equal amount of resources for direct development financing. Looking back at the way $2 billion worth of food aid was programmed and local currency proceeds used, it seems evident that much of the $2 billion could have had a greater development impact if it were programmed as development assistance rather than food aid. At least the negative impact on domestic agricultural

production would have been reduced. On the other hand, food aid satisfies many of the current desires of GOP officials concerned with Pakistan's finances. It is administratively simple, quick disbursing (which most development assistance now is not), and the terms are similar. Further, there has been a tendency to continue food aid when other aid has been suspended or reduced for largely political reasons.

8. Ration card distribution and other allocational systems for subsidized foods do not reflect variations in nutritional needs and income levels of different groups. Discussions on future food aid could include proposals to correct their inequities by improvements in food distribution and more equitable allocation of local currency proceeds.

Some Priorities for Future PL 480

Programs which should be considered for use of local currency generated by future PL 480 financing and problem areas deserving of serious discussion in connection with PL 480 and other economic assistance include:

1. Continued evaluation and development of a program to reduce irrigation water losses and improve efficiency of water use.

2. Continuation of the strategy for fertilizer import, development of local production, improved distribution, and rational pricing for major crops.

3. Expansion and integrated use of storage capacity for grains and oilseeds, and appropriate handling of essential buffer stocks of wheat.

4. Improved design and implementation of an appropriate vegetable oil strategy.

5. Improved research and extension activities.

6. Development and implementation of food distribution systems which better serve the nutritional and income needs of low-income groups.

7. Support of GOP family welfare programs which include family planning.

U.S. Technical Cooperation

Technical cooperation programs have been a continuing element of United States' assistance to Pakistan from 1951 to the present. Projects have been many and their character has been changing. Technical cooperation, more accurately technical assistance, has been furnished in three principal forms:

a. U.S. technicians (professional personnel) with special areas of training, experience or expertise considered important for particular development objectives;

b. Training of Pakistani personnel to fill particular personnel needs for particular development objectives;

c. Commodities or other financial support, usually of a relatively small and temporary nature, needed to improve the effectiveness of targeted institutions or agencies and considered important in achievement of project objectives. In most projects, this was a very small though highly valued element.

Early Programs

In financing technical cooperation, early commitments were made for participant training--107 persons in 1951 and 158 in 1952.[35] Inaugurating projects was initially a slow process and continued to be. A total of $600,000 of development assistance was obligated in U.S. FY 1951 and $10.62 million in FY 1952, the latter financing technical personnel, commodities and participant training. It also funded foreign exchange costs of nine activities; village aid, fertilizer imports, (East Pakistan) Forest Research Laboratory, training activities, health and sanitation, East Pakistan roads, fertilizer factory, Chittagong Hill tract timber, grain storage.[36]

In the first ten years $171.6 million was obligated for project aid, of which $21.7 million was for technicians, $38.3

million for contract services, $2.6 million for training and $109 million for commodities. Another $225.8 million was provided from DLF. Of the $171.6 million of project aid, $45.5 was for agriculture and natural resources.

Major early project activities in agriculture were:

1. Inter College Exchange Program (1953-69) provided support and cooperation for many colleges, including:

   a. Agricultural College (later University) Lyallpur (now Faisalabad) assisted by Washington State College (later University). A separate university project was established in 1964 and continued to 1973.

   b. Peshawar College (later University) assisted by Colorado State University. A separate university project, mainly engineering was continued after the college exchange program ended.

   Initially these were technology transfer projects planned for short duration. Later they changed to University institutional development activities. Agricultural University Lyallpur later became an important component in the area development project in SCARP I area.

   These projects were intended to develop colleges and universities of agriculture in the image of U.S. land grant colleges, combining academic training, research and extension. Academic training was reasonably well achieved but research and extension functions were not.

2. A ground water survey, begun in 1954 as Ground Water Survey West Pakistan, was carried on in one guise or another to 1974. This provided an important informational base for large scale ground water development of the 1960s and 1970s.

3. The Agricultural Research and Demonstration Project

   A large variety of separate demonstration projects followed in different areas, such as range management, soil management, rainfed agriculture, water management, etc., each with specific goals and objectives. A major research effort on water management

research planned to begin in 1963 never developed, despite construction of housing at MONA for United States personnel. Research was supported in a small way by a number of activities. In the 1970s it was expanded substantially, first under the Colorado State University assisted Water Management Project, and in 1974 with a large dollar loan and grant and rupee (PL 480) currency grant to develop a coordinated national research system.

4. Village Aid (1952-62), the first project, also included some non-agriculture elements.

5. The Agricultural Organizations Project initiated in FY 1954.

6. Plans Protection initiated in 1954-62

7. Agricultural Organization (1955-62)

8. Agricultural Workshops (1954-62)

9. Agricultural Research and Production (1954-65)

By stages, up to FY 1959, various elements of the agricultural development assistance efforts were combined. In November, 1959, Agricultural Improvement Services Project #101 was designed. The program presentation stated:

> Project 101 is designed to help Pakistan set up an effective chain of agricultural programs to bring to the cultivator a knowledge of better production methods, answers to unsolved problems through research, and production supplies required for the adoption of the more modern production practices. Current emphasis in the project is upon the extension objective but the project also contains important phases which work toward the second and third objectives. The specific elements of US participation are as follows:
>
> 1. Agricultural Extension - 8 advisors, partipant training
>
> 2. Plant Science - 5 advisors, participant training
>
> 3. Animal Science - 3 advisors
>
> 4. Plant Protection - 2 advisors, participant training

5. Agricultural Economics, Credit and Cooperatives - 1 advisor

6. Irrigation practices - 1 advisor participant training

7. Forest Management - 3 advisors

History of the Project

"The project is comprised of the former Agricultural Research and Demonstration Project 019 (initiated in 1953) and the Agricultural Organization Project 025 (initiated in FY 1954). These were combined in FY 1957 to form the Agriculture Development Project 025. In FY 1959 the timber extraction and forestry management portions of the Forestry Project (008) were incorporated. For FY 1960 Plant Protection Project 022 is being incorporated; the combination is now known as Project 101.

Important elements were training of extension workers through in-service workshops (Extension); developing and producing improved seed strains, especially maize and wheat; and providing advice on production (Plant Science); improving management (Animal Science); encouraging cultivators to handle plant protection and reduce dependence on government operations (Plant Protection); improving farm irrigation water use (Irrigation); developing credit and cooperatives for marketing and input supply (Agri-Economics); and improving forest management and extraction (Forest Management). The fate of this activity is unclear from data found. A small agricultural extension project was started in 1960 and ran to 1965.

SCARP--A model for Agricultural Development?

In FY 1963 various elements of the agriculture program in West Pakistan were concentrated on establishment of a model for development of the Indus Basin started under SCARP. This project, "Agricultural Area Development--West Pakistan", was to have approximately thirty assigned United States advisors

in addition to personnel assisting from the Agricultural University Lyallpur and the Ground Water Survey projects. The program, as it evolved, was to be an intensive integrated area development effort, with a wide variety of activities within and outside agriculture, focusing on recommendations from the Revelle Report. This effort concentrated on the SCARP I, area where between 1959 and 1963 the United States had financed installation of 2,000 large public tubewells, covering some 1.2 million acres with tubewell pumping capacity of 7,000 cu. secs. SCARP I was to lower ground water and permit flushing out of salts, thereby reclaiming saline and waterlogged lands and expanding water supplies to irrigated area. According to available records, the tubewells which preceded the Area Development Project had already significantly increased cropped area and production.

The Area Development Project involved many institutions and agencies and many facets of development--agricultural production, inputs, research, extension, marketing, credit, health, education, etc. It was expected to construct and demonstrate a model of development methodology.

As the intensive area development program in SCARP I was being initiated in FY 1964, the United States was proceeding with financing of additional SCARPS:

SCARP I	1959	$14,603,000
SCARP II A	1963	10,800,000
SCARP I (O&M)	1964	750,000
SCARP II B	1967	14,100,000
SCARP IV	1968	10,700,000
	(later deobligated in total.)	

The special agency created, on the Revelle recommendation, to operate the SCARPs--the Land and Water Development Board--was subsequently restricted to SCARP I after the GOWP Council of Ministers had commissioned a special study of alternatives and decided to revert to the "Line Agencies".[37]

The effectiveness of the intensive technical assistance efforts which went into SCARP I and the Area Development scheme is hard to assess. In the absence of more tangible evidence of real contribution, the withdrawal by AID from many of the major elements of the comprehensive approach and the decision to return SCARP operations to the line agencies lead one to conclude that at best it was a mixed success--probably much too complex at the inception, attempting as it did combine all the elements in a single program under central project direction. AID reports at the time bear this out.

A more serious problem for this project was that it was far from generally accepted by crucial development agencies. The Revelle Report itself had encountered a mixed reception on several counts:

- Costs/benefits conclusions were questioned.

- Its proposal to concentrate resources in some 25 areas was considered politically unacceptable by many since it would deny other poor areas by diverting resources including scarce supplies of fertilizer.

- It put too much dependence on government operations in such matters as public tubewells. These, as it turned out, were much more costly than private tubewells.

- Public tubewells were large and required heavy imports, while smaller private tubewells were soon essentially one-hundred percent locally manufactured.

- Because of the nature and distribution of groundwater salts the SCARP approach was considered at best a temporary expedient, less desirable than drainage.

- Probably the most serious opposition arose out of the recommendation for a Special-action board, which was naturally resisted by line agencies. The subsequent decision not to extend the Board beyond SCARP I reflects this opposition.

The decision appears to have been firmly reached in 1980 that future government tubewells will be restricted to special

situations, particularly where water is unsuited for irrigation and "vertical" drainage is justified.

Reclamation in some target areas was and is opposed as unfeasible or at least less practical than developing new areas not receiving adequate supplies. Despite the opposition to the Area Development Project, one of the suggestions made to the Review Team (1980) in a couple of meetings was that the United States should bring back another Revelle-type team.

Ambitious cross section approaches also characterized Village Aid, Basic Democracies, and Public Works Projects, and were repeated in the efforts at integrated rural development (IRDP) in the 1970s. By then, AID appears to have been very cautious about embracing a comprehensive approach which cut across and in some cases supplanted line agencies and ministries. United States' efforts were directed mainly to financing research and study designed to evolve operationally feasible and acceptable (to other agencies) concepts, including assignment of the roles of Government versus private enterprise, old line agencies versus the new IRDP (presumably to assist and support them in achieving their assigned roles), and to define needs for physical facilities and identify low cost economically feasible structural design.

Research and Extension

In its July 1966 briefing book, USAID expresses doubts over the effectiveness of major development initiatives of the GOP, many supported in part by the United States. These included the Comilla Project, the Mymemsingh Project, the Peshawar Project, the East Pakistan and West Pakistan ADCs, Basic Democracies and Extension. Various integrated rural development programs could now be added to the list. The 1966 briefing book notes:

> There are many areas of Pakistan's agricultural development that could greatly benefit from more and improved research. Of these many areas, two

> appear to be most critical: research on seed improvement and soil and water management. These two areas represent major impediments to satisfactory rates of agricultural development in the future.

This comment concerning priorities for research if frequently repeated, along with problems of coordination and other priorities such as development of oilseeds and vegetable oil production and research on soil fertility and use of chemical fertilizer. In 1974 AID initiated a program of major support to expand and better coordinate research under the Agricultural Research Council. Evaluations, including an IBRD report in 1980, again indicate the difficulties encountered in developing adequate research capability and organizational focus.

The Extension Service is still weak, despite the long record of assistance starting with the inception of the U.S. aid program and continuing through Village Aid and various development projects, such as the Indus Area Development Project and the special college and university development projects. This last received support for almost twenty years, beginning in 1954 with Washington State University assisting what later became the Agricultural University Faisalabad, and Colorado State University aiding the University of Peshawar. As a broad generalization, the academic development efforts were reasonably successful in development of academic training capacity. The caliber of training and the numerical targets for student and faculty were generally achieved, but development of research and extension roles and objectives must be classified as a failure. Neither institution currently has more than a very minor and academic role in extension, and their research activity tends to be small or generally esoteric, focusing only incidentally on major practical problems. For both Pakistan and the two provinces (Punjab and NWFP), research responsibility rests with separate institutes and stations, and

extension responsibility, including in-service extension training, with separate government agencies. However, the contribution of these universities in producing needed academically trained professional personnel has been critically important.

The Extension Service, for its part, is still burdened with many duties extraneous to its normal role (including monitoring, statistical and reporting functions, distribution of inputs and, until very recently, pest control). Further, its staff lacks training, is poorly paid, poorly motivated and administered, and lacks technical and logistical support.

In general, the government has attempted to assume too many functions directly rather than using various intermediate private entities, currently existing in large numbers, for distribution of seeds, pesticides, fertilizer, farm machinery and machinery services, veterinary supplies and services, credit and marketing, and as the principal conduit for channeling of technical information to farmers on improved crops and production practices. Direct government efforts to execute these responsibilities generally have been inadequate and appear often to have marginally failed whether assisted by foreign donors or not. Dr. J.R. Motherall (USAID) is reported to have advised:

> The Government must learn to govern in areas in which it has competence--and to stand by in fatherly posture where it is less efficient than the private citizen in hot pursuit of a rupee.[38]

But then AID was pushing the Area Development Project, which many GOP officials resisted because it placed excessive demands on government in direct operations and coordination.

In more recent years, the measurement of water use efficiency and amounts and sources of water losses has resulted in a low cost program with high farmer involvement to improve efficiency. The program has been widely acclaimed as very successful.

Other donors, most notably the World Bank and Asia Development Bank, are now both seeking an opportunity to finance the continuation and expansion of these activities. Similarly the Barani Project (begun in 1975), aimed at developing and demonstrating widely the production potential in non-irrigated areas now appears to be widely accepted and its continuation and expansion is planned with Canadian support.

Research support to the PARC, initiated in 1974 as a coordinated national effort, has had mixed results. However, the concept is widely accepted and the top echelons of government seem determined to make it succeed. IBRD has recently carried out an intensive review of national research needs, existing agencies, and the capacity of PARC to act as a coordinating mechanism. It is likely to support an expanded program along the general lines initially incorporated in the 1974 GOP/USAID agreement. Research on small scale farm equipment supported by an AID-IRRI contract received considerable praise, but it may be premature to draw final conclusions.

There are several other program activities supported in the past by the United States, such as land reclamation/soil and water conservation, reforestation and range management, for which positive results are difficult to find at this time. If a significant contribution was made, its effects can no longer be related to United States assistance.

On balance, the technical assistance or technology transfer aspect of the U.S. aid programs can surely be classified as a success, albeit a mixed one. It is clear that they would have been much more successful with more continuity and more limited and specific goals. Thus, illustratively: the Agricultural University Lyallpur Project was more successful than the broader early inter-college exchange program; the Ground Water Survey Project made a significant contribution to public and private ground water development, as a result of two decades

of fairly continuous support of very specific goals, plus support to development of ground water subsumed under other activities. Research and extension appear to have suffered from discontinuity and changing goals. The substantial inputs, in the form of Colorado State University personnel and rupee support, accorded water management research in the 1970s made a significant contribution. But the inputs to Village Aid and Basic Democracies in West Pakistan and Area Development West Pakistan, though substantial, apparently were too short in planned duration or aborted too early to have lasting effects in West Pakistan. The Barani Project may require more sustained inputs to be successful, though the results reported by the Agency for Barani Area Development (Punjab) in the Pakistan Economist (October 18, 1980) are impressive--a doubling of wheat yields by 1980. Some of this increase must be attributed to good rainfall in 1979-80, but still, if the reports are true, it represents truly remarkable progress.

Participant Training

Total technical assistance measured in terms of numbers of United States nationals serving in Pakistan peaked in 1961; in terms of participants, it peaked in 1959. The number of United States technical personnel dropped sharply after 1961 while the number of participants dropped much less sharply (Tables 10 and 11). The United States' technical assistance programs of the 1950s undoubtedly made a significant contribution to development of technical information and institutional capability, including personnel training, which was important to the rapid growth of the 1960s. However, the United States technical cooperation role was much reduced in the 1961-62 to 1969-70 period, when growth in output was accelerating. It did play a role through discussions related to PL 480 food, agricultural input, and other financing, beginning in the

1960s, though this was not formally defined technical cooperation. Of the three major technical assistance activities in agriculture operating in the 1960s, the Agricultural University was partially successful in academic training, but not in research and extension, while ground water development successfully continued a much earlier effort on a modest scale.

After 1973 new technical assistance projects were initiated in (1) water management (research) and later development, (2) agricultural research, (3) rainfed agriculture and (4) small scale machinery. Numbers 1, 3, and 4 may be classified as successful though curtailed early. (Table 12 shows extent of target accomplishment on #1 as reported by the project staff.) Number 2, Agricultural Research, has encountered many difficulties in U.S. staffing and Pakistan leadership and support. Results have been measurable but disappointing. It is too early to measure production impacts from these projects.

Scientific and Cultural Exchange

A significant contribution has been made by technical cooperation in creating good will toward the United States as well as in enhancing the levels of attainment of the agricultural (scientific) community. However, there is a strong feeling that much of these gains may be lost unless some long term arrangement is made for reinforcement of scientific and cultural exchange between professors, researchers and government officials in Pakistan and their counterparts in the United States.

The withering of the opportunities for scientific exchange appears to be one of the most strongly felt losses deriving from changes and discontinuities in U.S. aid in recent years. Considering its relatively low cost and high pay off in terms of technology transfer, intellectual stimulation and cementing of Pakistan/United States relationships, ways should be sought

to reestablish a scientific exchange on a permanent basis, reflecting the present views on equality of scientific personnel in Pakistan and the United States. A suggestion often heard both in the United States and in Pakistan was that such a program should be a flexible mix, including opportunities for mid-career Pakistan scientists to come to the United States for two to nine months on combined study, teaching and/or research fellowships, and for perhaps ten to fifteen outstanding United States scientists to spend two to three weeks a year in Pakistan (over several years for each) working on individual problems. This exchange should relate to identified priority problems affecting Pakistan's agriculture. The USDA rupee-supported research program does provide some of this, but is criticized for concentrating local currency on esoteric problems of low priority to Pakistan, thereby diverting scarce scientific personnel from more basic problems.

TABLE 10

NUMBER OF NEW PARTICIPANTS SENT FOR TRAINING, FY 1951 - 1979 USAID/PAKISTAN

Fiscal Year	Number of Participants: US/Third Country (Excluding AUB)*	AUB*	Total
1951	38	--	38
1952	56	--	56
1953	25	--	25
1954	44	--	44
1955	59	5	64
1956	46	14	60
1957	125	47	172
1958	156	72	228
1959	169	53	222
1960	92	54	146
1961	73	52	125
1962	107	46	153
1963	139	20	159
1964	117	30	147
1965	153	30	173
1966	123	7	130
1967	128	30	153
1968	105	53	153
1969	81	70	151
1970	48	58	106
1971	19	34	53
1972	2	70	72
1973	32	61	93
1974	54	60	114
1975	37	46	83
1976	83	--	83
1977	112	--	112
1978	40	--	40
1979	23	--	23
	2,286	902	3,188

*AUB - American University, Beirut

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TABLE 11

U.S. AND FOREIGN NATIONAL PASA, CONTRACT AND OTHER AGENCY EMPLOYEES, FY 1953 - FY 1979 USAID/PAKISTAN

Fiscal Year	PASA/Other Agency Employees	Contract Employees		
		U.S. Nationals	Foreign Nationals	Total
1953	34	--	--	34
1954	16	--	--	16
1955	20	154	--	174
1956	27	121	--	148
1957	34	110	--	144
1958	33	207	--	240
1959	24	200	--	224
1960	28	222	--	250
1961	29	228	--	257
1962	46	134	--	180
1963	47	123	--	170
1964	47	116	--	163
1965	30	73	--	103
1966	26	49	--	75
1967	17	40	--	57
1968	27	60	5	92
1969	19	52	6	76
1970	14	40	1	55
1971	15	4	--	19
1972	4	5	--	9
1973	8	29	56	93
1974	6	8	--	14
1975	7	7	--	14
1976	8	18	--	26
1977	13	16	147	176
1978	11	15	193	219
1979	7	5	33*	45*

*Figures include six foreign nationals contracted to Soil Conservation Service.

NOTE: Personnel data are as of the end of each fiscal year.

Source: "Distribution of Personnel as of June 30, 1948 thru 1978" AID/W; Personnel Office, USAID/Pkistan.

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TABLE 12

OFWM - Progress
(Up to June, 1980)*

Item	Target PC I	Target Fifth Plan	Achievement	% age achieved W.R.T. PC-I	% age achieved W.R.T. Fifth Plan
1. Watercourse Improved (No.)	696	350	654	94%	187%
2. Precision Land Leveling (Acrd)	197,907	99,050	51,074	26%	52%
3. Training (Mos)	3,199	--	4,257	133%	--
4. Field Teams (No.)	52	--	49	94%	--
5. Expenditure (million Rs)	176.82	101.50	106.08	60%	105%

*Year of commencement

Punjab	January, 1977
Sind	January, 1977
NWFP	July, 1977
Baluchistan	July, 1977

**PLL deemphasized by Punjab Government & ECNEC on October 4, 1980.

Agricultural Policy and Growth

The effects of economic incentives on agriculture in Pakistan have been mixed. Inputs have usually been subsidized for those who can get them, and output prices have often been subject to price controls, export taxes or other discrimination. Input/output price relationships have fluctuated over a wide range.

Early Policies

At partition, West Pakistan was a major supplier of wheat and cotton for export. There apparently was little concern over food supplies (production), some concern over distribution. The first evidence of a supply problem came in 1952-53 when, as a result of dry weather and of the high cotton prices during the Korean War price boom, wheat production fell 40 percent from the mark set two years earlier. The United States helped with major financing of food imports, first under MSA, and in 1953 under PL 77. Thereafter, United States food aid became almost a continuing fact of life for Pakistan food planners, rising steadily each year during the 1950s to a peak of $134 million in 1959-60. In 1961, an agreement was signed for $622 million in food aid, to be delivered over four United States fiscal years. Agriculture, as a whole, received little attention or investment, other than surface water development, and suffered under unfavorable price policies in the 1950s.

Many regulations, such as restrictions on movement from surplus areas and forced sales to the Government at a fixed price, had started during World War II. In 1958, under martial law, more regulations were imposed; by November, 1958, fourteen commodities were price regulated, and 87 regulated through various profit laws. Due mainly to negative price policies, but also to inadequate and frequently misdirected attention to

other development requirements, agricultural output, particularly food output, lagged behind population growth rates up to about 1961.

In 1959-60, according to AID records, the GOP, after giving little attention to food price incentives for 13 years, decided to make the old control led wheat price of Rs. 13/Md. a support price, and to allow free price movement upward, constrained only by open market sales at about Rs. 16. Better incentives were provided for other crops also. In the next decade a number of factors combined to create an extremely rapid agricultural, particularly food grain, growth rate. The large investment made in surface water development in the 1950s began to pay off in a rapid growth in area cropped, generally improved price policies prevailed, fertilizer supplies were expanded and distribution was improved, and ground water development through tubewells (especially private tubewells) expanded very rapidly. Higher yielding varieties of wheat and rice also contributed. Water development, particularly private tubewells, is credited with the major part of the rapid growth rate. Farmers could earn a 50-200 percent return on tubewell investments, and returns on fertilizer use, at existing 50 percent subsidy rates, were about Rs. 5 in grain value added for each rupee spent for fertilizer.[39] In addition, the cotton export duty, set at Rs. 115/MD in 1958, was gradually reduced to Rs. 25/MD by 1964-65. (That is, from about 25 percent of the farm value to about five percent).[40]

PL 480 is credited (or blamed) by Falcon and Gotsch with a critically important role in the 1950s and early 1960s in mobilizing resources for development and controlling inflation. Some of these resources went into surface water development. Falcon and Gotsch also saw availability of PL 480 as a major factor in the freeing up and improving of agriculture terms of trade after 1958. Its stabilizing effect on food supply

stimulated a shift (during the 1960s) to higher value cash crops (away from subsistence crops) and thereby accelerated growth in value of output, because higher value crops were substituted for low value food crops.[41] A mid 1960's PIDE Study concluded that PL 480 wheat, as distributed by the GOP, monopolized mills and denied markets to local wheat producers.

In January, 1964, the Government took the important step of turning much of the fertilizer distribution over to private "stockists" in contrast with previous dependence on cooperatives and the ADC. A sudden spurt in sales of fertilizer and failure to import adequate amounts resulted in tight supply and distribution was returned to cooperatives. After repeated expressions of concern by the United States, this decision was gradually reversed in 1967 and following years. U.S. financing of fertilizer, until 1967 generally a part of the commodity import credits, began increasingly thereafter to be financed under special Input loans. These provided support to a national fertilizer-fueled agricultural growth strategy by insuring ample imports while local production was being developed, and by improved distribution and price policies. The GOP usually opted for fertilizer subsidies to hold food and fiber prices down.

Other inputs also have been heavily subsidized--pesticide (often applied free by the government), electricity for tubewells, investment in private tubewells, publicly supplied irrigation water, machinery and machinery services and credit. But all too often heavy subsidies and inefficient and limited government supply of inputs and services went hand-in-hand. Some farmers benefited, but many did not receive any input or service and when they did, all too often the quality of the service was poor. Two of the principal contributors to agricultural development--private tubewells and improved seeds--generally enjoyed minimal government input. Public tubewells

were costly to operate and often wastefully operated. Their fertilizer program was about as much hampered by government interference as it was aided by government subsidies. Pest control, for the most part handled by the government, has had a low level of effectiveness. (It now is to be turned over to private hands.) Government also plans to leave most of the tubewell development in private hands, restricting public tubewells to drainage and possibly other special situations.

A common problem with GOP development policy is that the Government has tried to do too much, and in the process, often interfered with private efforts. It has attempted to direct private development probably too closely by incentives and sometimes taxes and in that process distorted development. Agriculture has suffered as terms of trade were turned sharply in favor of industry, especially export or import substituting industry. The United States, on its part, has consistently pushed for agricultural development, food self-sufficiency, adequate price incentives to farmers, and more favorable terms of trade for agriculture. But it also occasionally has contributed to the unfavorable policies and terms of trade. In general, it has advocated restricting government operations to critical areas and leaving other aspects to the private sector. It supported fertilizer and water development programs from 1952 to the present, early transport and power development (1950s and 1960s), and early development of agricultural education, research and extension.

Despite its general support of private enterprise, the United States, in its concern for moving ahead with certain projects, inputs and services, at times has advocated initial public sector operations. This arrangement tended to become institutionalized as a public sector operation after it was clear that the input or service had gained wide acceptance and that it was beyond the capacity of government to fill the needs.

That tendency, evident in the 1950s and early 1960s, seems to have been increasingly resisted since.

Recent Development Policies

Fertilizer prices were increased sharply in 1972-74 as world prices rose, while major domestic crop prices were held down. The result was sharp deterioration in price relationships. To correct this, in 1974-75 the government moved to increase incentives to farmers. Increases were made in prices at which major commodities were procured by the government and procurement policy was changed from one of required sale of surplus at a fixed price to one in which procurement price served as a support, with farmers free to sell on the market at higher prices. Wheat and rice support prices were raised by about 50 percent and sugar cane by 25 percent. In 1976-77 price support was extended to many additional commodities. (See Tables--pages 217-218).

To further improve price relationships and increase incentives, fertilizer prices were reduced by almost 20 percent between 1975-79. In the same period, the United States increased its fertilizer import financing. The largest commitment was made in FY 1976, for $100 million for FY 1976-78. Fertilizer consumption grew by almost 700,000 nutrient tons annually from 1974-80, fueling another agriculture boom. In the last four years, up to mid-1980, agriculture grew at a rate of over four percent, compared with 1.5 percent for the first part of the 1970s.

In early 1980 the government raised fertilizer prices by an average of about 50 percent as part of a new policy aimed at reducing subsidies on both inputs and outputs to bring prices closer to world levels. Following through on the same policy, a further wheat price increase was announced in October, 1980, bringing to 43.3 percent the increase from 1976-77. Rice prices were also raised in 1980 from 60 to 70 for Basmati paddy and from 30 to 36 for IRRI paddy, an increase of 17

percent and 20 percent, respectively. Between 1975-76 and 1980 sugar cane prices were raised by about 56 percent. The cotton support price was raised by about 20 percent between 1976-77 and the 1980-81 crops.

Thus, wheat and sugar cane prices have about maintained, or slightly bettered, their 1976-77 relationships to fertilizer and remained about on par with each other. Cotton and rice prices did not keep pace with fertilizer nor with sugar cane and wheat. However, rice had received hefty price support increases in 1973-74 and 1974-75 (while wheat was held constant) and as of 1980 appeared adequately priced relative to wheat and sugar cane and to fertilizer. The increases in cotton prices may prove disappointing to farmers when they look at changes in fertilizer and labor costs. Despite the return to the earlier favorable fertilizer/crop price relationships, the sharpness of the fertilizer price increase can be expected to at least temporarily slow fertilizer consumption and agricultural production growth rates.

Wheat, cotton and rice prices to farmers are all still well below world prices. Wheat is about 65 percent of C&F price, cotton about 60 percent of the United States FOB price, and rice about 60 percent of the FOB value.

In the last two years the government has sharply increased prices paid for sugar cane by large mills (Rs. 5.75 to 7.00 to 9.00/MD) to encourage farmers to grow more and to deliver to large factories. The result has been a sharp increase in cane production and expected cane deliveries to factories. Gur prices have declined significantly. The desirability of attempting increasingly to substitute white sugar for gur must be questioned. White sugar is nutritionally poorer and its manufacture involves major capital investment which might better be used elsewhere. Further, it tends to displace rural labor as compared with gur production.

TABLE

PROCUREMENT/SUPPORT PRICE OF CROPS

	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
	--Rupees per maund--									
Wheat	17.00	22.25	25.50	37.00	37.00	37.00	37.00	37.00	46.65	54.2
Rice:										
(a) Basmati Rice	38.00	46.00	62.00	90.00	90.00	90.00	90.00 (a)	110.00		
(b) Basmati Paddy	---	---	---	--- (b)	--- (b)	52.00 (b)	52.00 (c)	60.00 (d)	60.00	70.00
(c) Irri 6 Rice	21.00	21.00	27.00	40.00	40.00	40.00	46.00	49.00		
(d) Irri 6 paddy	---	---	---	---	---	30.00	30.00	30.00	30.00	36.00
(e) Others (rice)	19.00 to 20.00	19.00 to 21.00	24.00 to 27.00	25.00 to 40.00	38.00 to 40.00	38.00 to 40.00	38.00 to 39.00	---		
(f) Others (paddy)	---	---	---	---	---	20.50 to 25.00	---	---		
Sugarcane: (at mill gate)										
Punjab	2.50	2.75 to 4.25	4.25 to 4.75	5.25	5.75	5.75	5.75	5.75	7.00	9.00
Sind	2.65	3.00 to 4.40	4.40 to 4.90	5.40	5.90	5.90	5.90	5.90	7.15	9.15
N.W.F.P.	2.25	2.50	4.00	5.00	5.50	5.50	5.50	5.50	6.15	8.75
Cotton:										
(a) Upland	---	---	---	---	---	125.00	138.00* to 160.00	138.00* to 160.00	138.00 to 144.00	149.50 to 159.56
(b) Desi	---	---	---	---	---	120.00	132.00	132.00	134.00	145.57

TABLE

PROCUREMENT/SUPPORT PRICE OF CROPS

	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
	--Rupees per maund--									
Maize	---	---	---	---	---	32.00	32.00	32.00		
Potato	---	---	---	---	---	25.00	25.00	25.00		
Onion	---	---	---	---	---	18.00	18.00	18.00		
Gram (Black, Whole)	---	---	---	---	---	45.00	45.00	45.00		
Masoor (Whole)	---	---	---	---	---	70.00	70.00	70.00		
Soybean	---	---	---	---	---	80.00	80.00	80.00		
Sunflower	---	---	---	---	---	90.00	90.00	90.00		
Safflower	---	---	---	---	---	75.00	75.00	75.00		

(a) Rs. 105.00 for superior grade rice from automatic plants.
(b) Rs. 48.00 for better quality rice with 20% brokens.
(c) Rs. 54.00 for superior grade rice.
(d) Rs. 56.00 for superior grade rice.

	*Varieties	Minimum Staple length	Rs. per md.
(i)	AC 134, NT, BSI	1 inch	138.00
(ii)	B-557, 149-F	1.094 inches	149.00
(iii)	Sarmast, Qallandri, Deltapine	1.50 inches	160.00

In early 1980 Dr. Naqvi (PIDE) confirmed these observations on policies:

> All available evidence points to the conclusion that export prices invariably exceeded the domestic procurement prices of major crops by a wide margin. For instance, the domestic procurement (price) of sugar cane was kept much lower than the international prices. Whether the agricultural sector has been a net loser or a gainer of resources under the joint operation of input subsidies and output procurement prices needs a sophisticated and elaborate analysis. However, the magnitude of the difference in the open market prices and the Government fixed prices appears to suggest a large transfer of resources from the agricultural to the non-agricultural sector. It also suggests that disincentives may have prevented the farmers from carrying out a sizable capital investment in agriculture.
>
> These price policies have also tended to favor cash crops at the expense of food crops. This is not desirable if it is remembered that achieving food self-sufficiency is one of the basic objectives of our national policy.[42]

With improvement in prices and in fertilizer supply and distribution in 1974-75, total production, which stagnated from 1970 to 1975, spurted in 1976 and has since continued at an accelated pace except for 1978, when the wheat crop was hit by an attack of rust. In 1979-80, wheat output was 60 percent above the 1970-72 average, and rice 50 percent higher. Cotton, after peaking in 1971 at 709,000 M.T., then falling to 418,000 M.T. in 1976, set a new record of an estimated 750,000 M.T. in 1979-80. Despite the highest population growth rate in South or East Asia (three percent), Pakistan's food crop production <u>per capita</u> in 1979-80 was 33 percent above the 1961-62 average.[43]

Investment

The rapid growth in production is all the more impressive when it is recalled that agriculture's share of investment dropped from 22 percent in the late 1960s to nine percent in 1979-80. The decline reflects the general decline in private investment during the 1970s as shown below.

INVESTMENT TREND[43]

Years	Investment as Percentage of the GNP					
	Current Prices			Constant Prices		
	Total	Private	Public	Total	Private	Public
1969-70	15.8	7.3	7.0	15.8	7.3	7.0
1970-71	15.7	7.0	7.0	15.3	5.8	6.8
1971-72	14.1	6.5	6.0	11.9	5.4	5.0
1972-73	12.8	5.5	5.8	7.9	3.1	3.3
1973-74	13.3	4.4	7.7	8.9	2.8	5.0
1974-75	16.1	4.6	9.7	10.4	2.8	5.9
1975-76	16.9	4.8	12.1	11.4	3.3	8.2
1976-77	11.7	5.1	12.1	11.6	3.3	7.8
1977-78	17.7	4.9	11.1	10.2	2.9	6.7
1978-79	16.0	4.8	10.8	10.0	2.8	6.4

Meanwhile, public resources have been increasingly committed to the non-development budget and public savings have been virtually zero.

Private and Public Savings as Percentages of the GNP at Current Prices

Years	Private Savings	Public Savings
1969-70	8.0	0.9
1970-71	7.8	0.7
1971-72	10.0	-0.3
1972-73	11.4	-0.5
1973-74	7.2	-0.1
1974-75	6.4	-0.6
1975-76	9.2	0.8
1976-77	8.7	2.4
1977-78	11.5	1.8
1978-79	9.4	1.4

Growth Rates of Major Government Expenditures during the Seventies

	1970-71 to 1979-80		1970-71 to 1976-77		1976-77 to 1979-80	
	At Current Prices	At Constant Prices	At Current Prices	At Constant Prices	At Current Prices	At Constant Prices
Total Expenditure	21.8	6.5	25.8	6.6	14.2	6.3
Development Expenditure	25.4	4.6	33.8	8.2	10.1	-2.4
Non-Development Expenditure	19.9	7.2	21.3	5.9	17.3	9.8
General Administration	13.5	0.2	16.3	0.9	8.2	-1.1
Defence	16.4	2.7	18.1	1.5	13.1	3.8
Subsidies	45.6	28.5	51.5	31.3	34.5	23.0
Debt Servicing	23.5	9.0	26.6	9.8	17.6	3.7
Others	22.2	8.0	22.4	8.1	21.1	7.7

Analysis by PIDE concludes with respect to non development expenditures:

> The increase in non development expenditure has been due to greater budgetary allocations to defence, debt servicing, subsidies, general administration and socio-economic services which constitute the major items of the non development expenditure. The expenditure on defence, the single most important component of non development expenditure at current prices, registered a 16.73 percent annual growth rate during the 1970s as compared to the corresponding rate of 13.5 percent for general administration. This differential becomes greater at constant prices. It is interesting to note that while defence expenditure increased at constant prices by 3.8 percent the expenditure on general administration during the same period actually declined at an annual rate of -1.1 percent. Apart from that on defence, expenditure on debt servicing has also increased rapidly at an annual rate of 24 percent in current prices.
>
> Subsidies also form an important element of non development expenditure. In order to protect the consumption level of the urbanites, wheat was heavily subsidized during the decade. Government subsidies rose from a modest base of Rs. 101 million in 1970-1971 to Rs. 2,970 million in 1979-80. In 1979-80, they accounted for 9 percent of the non development expenditure compared to 1.5 percent in 1970-71. It may be noted that wheat subsidy accounts for roughly half of the total subsidy while another one-third is accounted for by the subsidy on agricultural inputs.
>
> To summarize, the public non development expenditure escalated during the decade while public revenues stagnated. The inability to check public expenditure has been mainly due to an ever-rising defence expenditure, the introduction of subsidies, and an increase in debt servicing. The rising expenditure and roughly constant revenues have constrained the growth of public savings within fairly narrow limits.[44]

Remittances

Workers remittance have recently become a major item in GNP (approaching 10 percent) and account for 60 percent of Pakistan's foreign exchange resources. A PIDE analysis of

this source of income notes that 62.6 percent of remittances are spent for consumption and that "only 14.5 percent of the remittances flow into production channels." It may be much less if "own business" investment shown in the table consists largely of the buying out of existing businesses. Only very small amounts, less than four percent, appear to go for productive investment in agriculture, while increases in consumption put increased pressures on agricultural supplies (food and clothing). Money going to real estate purchases also puts pressure on farm land, thereby pushing land prices up greatly and raising costs of production.

Trends in Workers' Remittances

Years	Remittances in Million Rupees	Remittances as a Percentage of the GNP
1972-73	1,448	2.4
1973-74	1,497	1.9
1974-75	3,351	3.2
1975-76	3,499	2.9
1976-77	5,851	4.2
1977-78	12,139	7.2
1978-79	14,870	7.8

Domestic Expenditure Pattern of Workers' Remittances[45]
(Percentages)

	Percentages
Consumption	62.6
Investment	37.4
Real Estates	22.9
Own Business	8.3
Agricultural Machinery	3.8
Savings Scheme	1.5
Industrial Schemes	0.7
Transport	0.2

New Policy Initiatives

Recently, in connection with negotiations for IMF financing, the GOP issued a concise statement of its agricultural policies and priorities for the future.

> 8c. While we have recently taken several measures to promote agricultural production, a number of fundamental constraints continue to limit output growth. The need for a revision of agricultural strategy in order to remove these constraints has been receiving special attention in recent months. Therefore, within the context of the medium-term public investment programme, we intend to give priority to programmes and projects in the agriculture and water sectors, in particular to agricultural research; extension services; quality seed production; credit arrangements and other essential complementary activities; rehabilitation of the existing irrigation and drainage system, accompanied by improved overall management; watercourse and on-farm improvements; and necessary drainage to complement the existing surface distribution and tubewell system where inadequate drainage or salinity are the key constraints. These policies will be reinforced by moves to transfer increasing responsibility to the private sector for various operations now in the public sector's domain, such as sweet water tubewells and distribution of fertilizer and seed, in order to release public resources for other purposes. Wherever conditions permit, ground-water exploitation will be left increasingly to the private sector, supported by appropriate supervised credit schemes and the expansion of rural electrification. Furthermore, the Government is committed to a major sustained increase in maintenance outlays on the irrigation system.
>
> 8d. These changes in investment priorities and programmes in the agriculture and water sectors will be complemented by appropriate price adjustments designed to provide adequate incentives for increasing production. We intend to continue with price adjustments aimed at eliminating fertilizer subsidies by June 30, 1985, so long as this does not render Pakistan's exports uncompetitive in world markets, seriously disrupt cropping patterns, or impose socially unacceptable cost increases. We also recognize that it is essential to ensure that coordinated pricing decisions are made for agriculture inputs and crops in order to offset any adverse effects of input price adjustments on producer incentives. To this

end, the Government will establish an Agricultural Prices Commission as early as possible but not later than March, 1981. In establishing terms of reference and guidelines for this Commission, we plan to seek the advice of the World Bank. A major objective of the Government will be to ensure through price and other policy measures that the real net incomes of agricultural producers are increased.

8e. Aside from the programmes mentioned above aimed at increasing production, the Government has already decided to prepare and introduce by December, 1981 a special programme of action for expanding cultivation of oilseeds aimed at curtailing edible oil imports and subsidies over the next few years and eliminating imports altogether by the end of the decade.

The statement accurately identifies major constraints on rapid growth in agricultural production and rural incomes. The initiatives proposed, if adequately defined and implemented, would appear to justify substantially expanded donor support for agriculture.

Some Lessons From Past Experience

Past experience and the current situation in Pakistan lead to the following conclusions.

1. There is an urgent need for more rapid disbursing projects--most donors have now followed the United States' lead of providing project (rather than commodity or program) aid, which tends to be slow disbursing.

2. There also has been a sharp shift in preference of donors from directly productive to social sector activities, which if they contribute to national income do so only over a very long period.

3. Local currency budgets are extremely tight and donor-supported projects are heavy claimants. We were told 85 percent of the total resources available for development already has been committed to on-going, short-term, donor-supported projects. This problem is exacerbated by donor support and expectation that the GOP will follow through on its own.

4. The increasing number of donors in a wide variety of projects, each with its own plans, procedures, accounting requirements, etc., is greatly complicating the administration and increasing the management load of the Government. Major integrated programs have been chopped into small discrete projects for individual donor support.

5. GOP Officials claim that many of the programs they are forced to accept represent solutions which are much too expensive for Pakistan to afford. Specifically:

   - New high technology
   - Capital rather than labor intensive approaches
   - Pukka houses, transport, etc., for extension workers
   - Excessive requirements for water courses
   - Precision land leveling for small fields
   - Foreign engineering consultants or types of activities that have been done successfully by Pakistani engineers
   - Unrealistic requirements on policy changes

6. Project commitments often are much too short and sometimes interrupted at that. (This was by far the most common observation and complaint heard.) Projects often are terminated just as success is in sight.

7. The most successful (U.S.-supported) activities were those in which the United States had participated in original problem identification and conceptualizing solutions, and had supported more or less continuously from the early days of the aid program.

   - Development of electric power and transportation (road, rail and air) infrastructure.
   - Development of water resources from dam or tubewell to farm, including, specifically, pioneering work on water courses.
   - Development of fertilizer demand, positve policies with respect to fertilizer distribution and fertilizer/crop pricing, and financing of fertilizer imports and plants.

8. Projects met with quite variable success in some cases because they were scattered and piece-meal in approach and erratic on support. Many, if not most, of the technical assistance projects probably fall in this category, in the view of Pakistani officials. However, a notable exception is the participant training element which, while costing much less than technicians,

has had a more lasting effect in terms of technology transfer, development of leadership, and cementing of warm Pakistan/United States relationships.

Projects with more limited objectives, very specific focus, and a clear concept of how to get there with continuity of support and foreign staff appear to have produced best results.

For example, the Agriculture University at Lyallpur of the 1960s appeared to be more successful than the omnibus College Exchange Program of the 1950s. It has been successful in teaching but appears to contribute very little in research or extension.

Support in development of the Planning Commission is an example of a program with clear objectives and concepts to which sufficient resources and time were allocated. That it has subsequently been slightly down graded in its hierarchical position and that some of its members have found lucrative jobs in international agencies should not be allowed to detract from the accomplishment.

The research and extension services, though recipients of substantial United States and other aid, have not developed as expected or as needed. Discontinuity in support, inadequate concepts, and excessive expectations probably are major reasons for lack of greater success. In particular, the Extension Service, understaffed, and poorly trained, motivated and supported, has been assigned too many additional, mostly superflous, functions. Further, expectations on its extension role have been excessive. It has been assumed that it would be the sole conduit for extending technical information directly to farmers, rather than using intermediary roles of agribusiness companies and individuals. Research produces little for investment because of poor planning, coordination, and administration of available resources. There are too many scattered facilities and staff personnel to support, leaving too little money for essential variable costs of research.

On both research and extension, the same problems have been identified in review after review for two decades. Despite these shortcomings, some significant contributions have been made by research and extension agencies.

Some Priorities for the Future

Principal candidates for future donor support of particular importance to agriculture include:

1. Continuation of the major, and so far very successful, efforts in fertilizer promotion, import and plant financing and policy analysis. Research confirms that this program has indeed brought benefits to isolated and low income small farmers by making fertilizer available to these otherwise deprived groups.

2. Substantially expanded program of water management, stressing water course improvement and better on-farm use of water. The precision land leveling element should be excluded from this program. Water course lining should be very limited. Most water courses should have linings only at critical points. Masonry water out-turn structures (nakkas) should be provided. Lining of water courses should be restricted to special problem areas--high ground water salinity, which makes removal of wasted water very costly and in very porous soils where losses would be very high or where water is very costly (e.g., high areas of Baluchistan).

3. Improvement in production, storage and processing of oilseeds.

4. Support to the national family welfare (Population) program just approved. As a part of the above or separately, a national village health program. Agriculture can only fight a delaying battle until population growth is greatly reduced.

5. Expansion in agricultural credit for small farmers.

6. Expansion of marketing and storage systems.

In financing the above programs, it is suggested that a consortium approach be followed, of the type which supported the Indus Basin Project. Input from all interested donors should be sought and put into a common pool, along with Pakistan funds, to be used uniformly without separate accounting. The donor inputs for each project might be "managed" by a single donor, with periodic reports made available to all donors. This would provide the advantage of a more secure source of funding and a single set of operating and accounting procedures.

It also would provide the stimulation internally that comes with having a large number of international donors focusing on progress on the particular project.

Projects of a smaller scale more amenable to single donor support include:

- Continuation and expansion of support to the national research system.

- Establishment on a permanent or long term basis of arrangements for scientific exchange in agriculture. This should provide for combined study and teaching or research fellowships for mid-career Pakistani scientists outside Pakistan, and for annual 2-3 week visits of outstanding foreign scientists to work on priority Pakistani problems.

ENDNOTES: CHAPTER III

1. Central Statistical Office, Economic Affairs Division, Ministry of Finance, Planning and Development, Government of Pakistan, 25 Years of Pakistan in Statistics 1947-1972, CSO-60, Karachi, The Manager of Publications, 1972, pp. 134-135.

2. Ibid., p. 133.

3. Ibid., pp. 136-38.

4. The Economy of Pakistan 1948-1968, pp. 218-219.

5. Ibid., p. 43.

6. Data for 1952-53 from selected Districts in Punjab would suggest about 20 percent of the "area irrigated" was affected to a level of at least one-fifth crop or area lost, but the area irrigated sums kharif and rabi irrigation to reach total area irrigated. Thus, to the extent double-cropping existed, this understates the severity of the problem, which probably was 25 percent or more. (25 Years in Statistics, op. cit.). The Revelle Report (officially, The White House-Department of Interior Panel on Waterlogging and Salinity in West Pakistan, Report on Land and Water Development in the Indus Plain. The White House. January 1964) Estimated area waterlogged or saline at 6.5 million acres. p. 62.

7. Ninanjan D. Gulhati, Indus Waters Treaty, An Exercise in International Mediation, (Allied Publishers, 1973), p. 47.

8. Ibid., pp. 46-47. (Elsewhere the start of this program is given as 1944-45).

9. Revelle Report, op. cit., p. 11 ($2.3 billion in 1963 dollars).

10. Ibid., p. 82.

11. Ibid., pp. 86-89.

12. The First Five-Year Plan (1955-60), National Planning Board, (Pakistan, December 1957), p. 217.

13. Ibid., p. 22.

14. 25 Years in Statistics, op. cit., pp. 82, 102.

15. The First Five-Year Plan, op. cit., p. 329.

16. Ibid., p. 339.

17. Ibid., p. 358.

18. Ibid., p. 359.

19. Ibid., pp. 376-379.

20. Ibid., pp. 486-490.

21. 25 Years in Statistics, op. cit., pp. 82, 102-103.

22. USAID Agriculture Division, Agriculture in Pakistan, (1966), pp. 203-204.

23. The Feasibility Study of SCARP IV, (1965).

24. This is discussed in greater detail in the previous section of this chapter.

25. It would be incorrect to give the impression that this was the first effort at ground water development in the Indus Valley. There were, of course, the millions of open wells dating back many centuries, with their persian wheels and other ancient devices to lift water. "Modern public tubewells" were tested in the early 1930's as a means of lowering the water table and overcoming water logging. The Rasul Tubewell Scheme was initiated in 1945 to recover seepage along canals of Rechna and Chaj Doabs. In 1952 the Chuharkana was initiated to use tubewell water for reclamation on full operational (not experimental) basis to cover 9,200 acres, but results indicated a need to cover larger areas to reduce surrounding influence. The Jaranwala Project covering 90,000 acres, started in 1955, established to the satisfaction of planners, the feasibility of the approach and set the stage for large U.S. and other donor support of the SCARPS. (From xx SCARP IV Project Paper.)

26. Walter P. Falcon and Carl H. Gotsch, Agricultural Development in Pakistan: Lessons from the Second-Plan Period, (Harvard University Center for International Affairs Development Advisory Service, Bellagio Conference, 1966).

27. Ibid., pp. 14-16.

28. By 1964, 40 percent of the SCARP I tubewells were badly deteriorated or inoperative (SCARP IV PP Table 12). Some

analysts put public tubewell costs at several times the cost of private tubewells.

29. Falcon and Gotsch, op. cit., pp. 1-22.

30. Ibid., p. 23.

31. Ibid., p. 24.

32. Ibid., pp. 60-67.

33. C. Berlinger, The Use of Agricultural Surplus Commodities for Economic Development in Pakistan, (Pakistan Institute of Development Economics (PIDE), January 1964), pp. 44-56.

34. Government of Pakistan, Foreign Economic Aid: a Review of Foreign Economic Aid to Pakistan, (Ministry of Finance, Ravalpundi, 1962), p. 12.

35. Ibid., pp. 9-18.

36. USAID Submission, 1968, Part III, p. 87.

37. Falcon and Gotsch, op. cit., p. 77.

38. USAID Pakistan Briefing Book, 1965.

39. Falcon and Gotsch, op. cit., pp. 60-68.

40. Ibid., p. 70.

41. The State of Pakistan's Economy 1970-71 to 1979-80, (Pakistan Institute of Development Economics (PIDE), Islamabad), p. 26.

42. Economics, Statistics, and Cooperative Services, U.S. Department of Agriculture, Indices of Agricultural Production for Asia and Oceania, Average 1961-65 and Annual 1970-79, Statistical Bulletin No. 636, 1979, updated with 1979-80 estimates.

43. State of Pakistan's Economy, op. cit., p. 27.

44. Ibid., pp. 25-26.

45. Ibid., pp. 45-46.

CHAPTER IV

DEVELOPMENT ADMINISTRATION AND INSTITUTION BUILDING

Introduction

This chapter describes the structure of the Pakistan bureaucracy and the United States assistance programs to Pakistan's development administration and institution building. There is special reference to the Civil Service of Pakistan (CSP) which is a small but powerful and elite corps within the bureaucracy.

The traditions and the cohesiveness of this corps of highly-trained, generalists have significant implications related to the structural changes required in Pakistan if its development goals are to be realized. There are also implications for the emphasis given the training of development specialists which should occur if Pakistan is going to maintain a steady course in pursuit of development.

U.S. assistance programs which focused on public administration in Pakistan were designed to support a restructuring of the administrative system. Since partition, various Pakistan regimes have tried unsuccessfully to reform the system, and these efforts have targeted the impregnable CSP. The current government has restored the CSP to its position of preeminence. The development agents of Pakistan and its donors will have to determine if the influence of the CSP can be turned into a positive force for development.

Conditions in Pakistan

The success of foreign donor funded programs in development administration has been closely linked to the position in the Pakistan bureaucracy of the Civil Service of Pakistan (CSP). The CSP is a small elite corps of administrators which has inherited the traditions of the Indian Civil Service of British

colonial times. It views its primary obligations as the maintenance of law and order and the collection of revenues and consequently has never really come to grips with the important issues of planning and development. Even though most CSP officers are well educated and extremely articulate in English, they take pride in their image as generalists who can serve in any bureaucratic position on any occasion and tend to look down on other bureaucrats who have chosen a different career path, most particularly those with specialized and differentiated skills.

The CSP, despite the sometimes harsh criticism it has received from politicians interested in the democratization of the administrative system in Pakistan, has always been given considerable deference by the public and has been considered loyal, competent, and generally difficult to corrupt. In 1974, the total size of the Pakistani bureaucracy was estimated to be slightly over one million persons. Three-hundred-twenty of those positions were considered to be senior positions at both the national and provincial levels and of these, 225 were occupied by members of the CSP, which at that time was about 300 strong. These figures not only tell of the dominant position of the CSP, but also suggest that the administrative services themselves are highly centralized, hierarchical, and not encumbered by the necessity of catering to elected officials.

During the last days of the British raj, the Indian Civil Service was dominated by Hindus who, at the time of partition, opted for the administrative services of India. Pakistan was caught short-handed for bureaucrats, and the few Muslim officials who chose to work in Pakistan were given positions of great responsibility and proceeded to shape the fledgling civil service in their own image. The Public Service Commission which has set recruitment, training, assignment, retirement and fringe benefits policies for the civil service has always

been dominated by the CSP. It has determined that candidates be recruited from the choice liberal arts university programs, that they be trained in law and fiscal administration, and be rotated from the field to staff positions on a regular basis. The CSP would still like to send all its new members to Oxford or Cambridge for a year's study, but this is too expensive to be feasible any longer. The typical CSP official spends his first tour of five to six years as an assistant commissioner in a sub-division or Tehsil, after which he is given staff training before being assigned to a staff position in the national or provincial government. In his tenth year of service he will return to the field as a deputy commissioner in charge of a district or municipal area. The deputy commissioner plays an extremely important role in both rural and urban administration and could be a key figure in the implementation of rural and urban development programs, particularly in mobilizing the support of the local population. From mid-career until retirement, most CSP officers spend their time in staff positions once again, as secretaries, joint secretaries, additional secretaries, heads of public corporations, high court justices, and provincial governors. They may move from one ministry or agency to another at either the national or provincial level. A few may return to the field as commissioners, however the position of commissioner seems to lack the importance that it used to have.

In reviewing these functions and assignments, it becomes obvious that the archetypical member of this elite service is a competent generalist whose experience comes from actual field practice, and who may, in fact, tend to play down the need for frequent interruptions of his career in order to be given additional training that to his mind is irrelevant to his actual needs. People from this mold shaped the manpower policies of Pakistan from 1948 to the present, except for a brief period

during which Bhutto's populist policies were designed to break the back of the CSP. Bhutto's campaign was both brief and ill conceived and in the long run had little lasting effect on the bureaucratic style of Pakistan.

Another factor, which in many third world nations reinforces the preeminent position of the bureaucracy, is political instability. Pakistan's political history since 1947 has been characterized by intense rivalry among a variety of factions, by the frequent intervention of the military into civic affairs, and most importantly by a lack of consensus about the constitutional basis for the state itself. Numerous constitutional conventions have been convened in Pakistan and some have produced constitutions, but none of these has lasted for very long, and although the current document was promulgated in 1973, it is honored in the breach by the present military regime. The major constitutional issues have never been resolved: whether Pakistan should be a parliamentary or presidential state, how extensive should be the powers of the chief executive, what should be the function of the legislature, to what extent should administrative responsibilities be devolved to the provinces or to even lower levels of government. An entrenched bureaucracy thrives on such indecision on the part of the countervailing forces, the politicians, the interest groups, and the politicized public, and in the case of Pakistan the bureaucratic supremacy has been given the tacit support of the military.[1]

The CSP Versus Modernization

In Pakistan, a key objective of almost all foreign donor funded projects with a technical assistance component has been to improve the effectiveness of key development related agencies of government and the private sector. There were expectations that this would be accomplished through modernizing and

rationalizing the structure of these development agencies and through training to produce personnel who would be more precise and systematic in decision-making. The civil service was to be no longer elite and converted into a meritocracy in which there would be differentiation and specialization of performance. The United States, in particular, was interested in reaching the lower levels of government--provinces, districts, municipalities, and perhaps even the villages--with an effort to involve the recipients of assistance in decisions about its design and implementation. This would involve major changes, not only in the structure of local government, but also a revision of administrative behavior by officials which ran counter to their traditions and their role perceptions. It was generally believed the introduction of a large number of expert consultants familiar with public administration as applied to the Western industrialized nations would result in the introduction of a rational planning and decision-making structure. The benefits of training government officials in modern management principles and techniques both at home and abroad, would thus, alter the bureaucratic style of the Government of Pakistan. Modernization of the institutions and the personnel serving in those institutions would certainly achieve the goal of more effective administration of development programs.

The reform of the public services had been contemplated in Pakistan ever since independence was achieved. The colonial style of administration emphasized the collection of taxes, the maintenance of law and order and the prosecution of the anti-social. This style was found to be less than appropriate for the changing demands of development in such fields as agriculture, industry, education, health, electrification, and energy. The CSP Officer has not looked upon himself as a change agent and has been slow in making the adjustment to the

new role. Furthermore, as administration becomes more complex with the multiplication of functions, the CSP Officer who is responsible for planning and coordination of multi-sectoral projects is not inclined to share the decision-making responsibilities with others. Rather, he is inclined to withdraw within his remote office and manage by fiat.

The Search for Alternatives

Recognizing these features of the CSP, which has become the role model for all Pakistani civil servants, the First Five-Year Plan (1955-1960) suggested radical change. This document shows considerable concern for this conservative and hierarchical character of the existing administration inherited from colonial times. The existing "system of public administration is admirably suited to the requirements of a government engaged largely in the primary function of collection of revenue, administration of justice, and the maintenance of law and order... With the attainment of independence and the shift of emphasis from regulating the life of the community to positive action for promoting its welfare, the system has become outdated and seriously inadequate. While government policies have a clear and definite bias in favor of development, the administrative system, wedded as it is to the status-quo in its approach, organization, and procedures, tends to pull in a different direction."[2]

"The administration machinery needs to be geared to the tasks of development and social advance. Such a reorientation is necessary to bring the people and the administration closer together, to develop identity of outlook and purpose, and to create faith in the country's ability to achieve its goals... 'In actual fact the phase of implementation of economic and social programs is likely to be governed even more by the capabilities of the administrative and technical organization

than by the availability of resources."[3] The plan document also suggests a list of requisites for administrative reform to produce rapid national development:

1. a streamlined organization, both at the center and the provinces, with differentiated and self-contained areas of responsibility;

2. a planning machinery for the center and the provinces;

3. statutory public corporations and authorities to implement development programs;

4. revitalized district administration directed to development;

5. democratically constituted local self-government;

6. a rational system of financial administration; and

7. the creation of a corps of progressive civil servants who combine efficiency, dedication and an awareness of their responsibilities to the public.

The chapter of the Five-Year Plan on the civil service stresses the need for structural reorganization and training in modern management techniques. A companion chapter placed great emphasis upon the need to develop a comprehensive and accurate statistical base for development planning and programming.

It is well known that American advisers to the Government of Pakistan had substantial input into the preparation of the first plan and they patterned the recommendations contained therein on the state of the art in public administration as taught and practiced in the United States and other industrialized nations and anticipated the need for a comprehensive externally funded program of training and technical assistance to accomplish the goals it set out. It was, thus, a short step from the release of the Plan to the design and implementation of a package of projects dealing with the organization and management of the administrative system and the training of civil servants equipped to operate it. Subsequent Five-Year

Plans (Second, 1960-65, Third, 1965-70, Fourth, 1970-75, and Fifth, 1975-80) have reiterated many of these same issues but less definitively than the original document partly because of the declining American inputs. But the repetition of these issues indicates that change has been slower than hoped for by the national planners.[4]

However, the subsequent plans tended to sharpen the tension between those advocating reform of the administrative system and those defending the established position of the CSP. The issue centered on the generalist's role of the CSP as established through tradition and the need for greater specialization and differentiation as recommended in the First Plan. The CSP maintained that in order to implement the far reaching development policies described elsewhere in the plan, an established hierarchy of disciplined administrators should be maintained. In order to meet the challenge of rapid modernization, the existing personnel structure should not be tampered with, as any attempt to undermine its authority would make the job more difficult. It was argued by the CSP and its supporters that a dedicated and disciplined civil service, regardless of its elite nature and lack of accountability to the public, could move forward rapidly with the task of social development and economic growth. Of more immediate importance to the future of the CSP was the 1969 publication of the controversial Cornelius Report on administrative reform. (Pakistan, Pay and Services Commission, Report, 1959-1962. Karachi, 1969.).

Interestingly enough, the report had actually been written in 1962 but the CSP had been successful at keeping it under wraps for seven years, fearful of the impact it might have on public opinion and the subordinate government services. Furthermore, although Ayub had commissioned the report, he was not sure that his administration could survive the desecration of the CSP recommended by the Cornelius Report. It was released

by the new martial law administrator, General Yahya, in response to his promise to do a thorough house-cleaning of the CSP. The report "severely criticized the elite 'governing corporation' role of the CSP, monopolizing for administrative generalists the most important posts in the regular administrative line and increasingly in the new public corporations as well, to the exclusion of members of specialist services and of the provincial services. The report recommended a revolutionary reorganization of the administration to replace the multitude of self-contained services..."[5] One of the developments which particularly concerned the opposition interests was the inclusion of many active and retired CSP officers in the top management positions of the new public corporations: Pakistan Industrial Development Corporation, Water and Power Development Authority, and the Agricultural Development Corporation. These corporations played an extremely important role in the setting of development policy. The managers were willing to align themselves with their colleagues in the CSP in the controversy over the Cornelius Report and, in effect, preserve the privileged position of the service.

The publication of the Cornelius Report further polarized sentiment in the bureaucracy, with the lower level civil servants, who had been denied the top positions because they lacked the proper background, demanding the outright abolition of the CSP, while the senior officials defended it vehemently, arguing that a large scale program of national development could not be achieved without them.[6] The issues raised by the Cornelius Report have never been resolved. President Ayub originally thought he could abolish or severely restrict the CSP, but by 1965 he too felt that this move would create a vacuum in the senior bureaucracy which could not be filled quickly from another source, and as his popularity declined and his development programs had to be restrained by heavy

defense spending, he realized that he had no choice but to rely on the CSP.[7] Prime Minister Bhutto made a more concerted attempt to terminate the exhalted position of the CSP during 1973 by abrogating many of its special privileges and by discharging several of its more important members and replacing them with prominent politicians from his own party.

"Under Ayub's administrative system, most of the senior civil servants belonged to the CSP, a service with a remarkable esprit de corps. The service tradition demanded that the differences between its members should not be allowed to stand in the way of their common interest. It was this solidarity and the ability to act in a concerted fashion that made possible the concentration of a great deal of power in the hands of a few people. These attributes also made it certain that a politician of Bhutto's temperament and independence would use all the power at his disposal to subject the civil servants to his will. This he did with remarkable skill and success."[8]

However, Bhutto's moves against the CSP meant that there was a decision-making void at the top levels of the bureaucracy, and more and more of this was left to the already overburdened ministers and particularly to Bhutto's finance minister, Mubashir Hassan. "As of mid-1974, however, the extent to which the reforms were being implemented was unclear. Several senior CSP officials had been forced to retire, at least in part, as an object lesson to other civil servants. The dependence of the government on experienced administrators had not been diminished, however, and the permanent alienation of former CSP officials could seriously hamper Bhutto's efforts to implement his ambitious plans for restructuring the economy and the society."[9] When Bhutto was removed from office in 1977 an alternative to the CSP had yet to emerge. In the ensuing years, President Zia has restored the CSP to its former position of prominence. In November, 1980 when the Review Team

visited Pakistan, most of the senior officials at the central level as well as those in the provincial governments of Punjab and the Northwest Frontier Province interviewed by its members identified themselves as members of the CSP.

The American Response: Development Assistance Programs

The United States Development Assistance Program entered this situation with its plans for modernizing the administrative services in terms of both structure and operations and for training to provide the appropriate officials to achieve these objectives. The "Goal and Development Strategy: Public Administration Objectives" were spelled out quite specifically: "to develop a structure which is responsive to the changing needs of an era of economic development."[10] Together with the Government of Pakistan and more specifically with the Establishment Division of the center, the Public Administration Division of the United States Operations Mission undertook a comprehensive program of modernizing public administration. Projects to this end were initiated as early as 1956. "Technical assistance in public administration involving experts from abroad, the growth of local training capabilities and the training of Pakistani officers abroad, will be required for some years. Given the critical need for administrative development, the Mission's objective continues to be the application of modern management to selected areas of administration." In planning assistance, the Mission has identified areas of urgent need in which it will concentrate its efforts. These areas are identified by the following three goals:

1. Decentralization. Decentralization of government functions as closely as possible to operating levels, and the growth of local autonomy among the provinces and particularly in the Basic Democracy System.

2. Technical skills. Strengthening of operational capabilities of government technical services by helping to upgrade and to develop technical cadres of professional personnel through training and education and by facilitating their acceptance into management.

3. Management systems. Improvement in the administrative tools of planning and development by assistance in the modernization of central management systems and by encouraging, where feasible and appropriate, mechanization of operations. Priority attention will be given to the systems of fiscal and planning administration.[11]

In another document prepared by the Mission in Pakistan these and other goals were more explicitly itemized:

1. improve the efficiency of key development agencies in which the United States has an interest (Water and Power Development Authority, railways, and agricultural organizations);

2. introduce modern budget practices;

3. improve statistical capabilities;

4. strengthen organizational and management training capacities;

5. support the growth of local self-government; and

6. create centers of excellence: at the University of Dacca in management statistics, at the University of Karachi in business administration, and at the University of the Punjab in Lahore in public administration. (United States Operations Mission to Pakistan, Country Program Book, 1960).

If the First Five-Year Plan which was released in December, 1957 is largely the product of American advisers to the Planning Commission, its major proposals in civil service reform were American inspired, and the responses when they came were typically American, the product of the latest thinking in the U.S. academic public administration discipline. During the first plan period, up through 1960, a variety of projects

funded by the U.S. Government and by the Ford Foundation were initiated to assist the Government of Pakistan in reaching its stated goals--stated both in the plan itself as well as in USOM strategies.

The most important of these were: Project #102, Institute of Public and Business Administration, University of Karachi; Project #037, Development of Statistical Services; and Project #105, Public Administration. During the period of the Second Five-Year Plan, additional projects were initiated, among which were Project #140, Government Administration and Project #142, Economic Planning Assistance. As a rule, these projects consisted of three main components:

1. technical assistance through the assignment of a team of expert U.S. consultants,

2. provision of commodities such as teaching materials, textbooks, libraries, laboratory equipment, and in many cases, buildings and vehicles, and

3. participant training which allowed for the overseas training of young Pakistanis who would be assigned on their return to key positions in development oriented agencies or in training institutions.

Some were sent abroad for advanced degrees--professional masters degrees or Ph.D.s; others for short-term seminars, workshops, inspection tours, or on-the-job training exercises.

In the initial stages of the program, the United States inputs focused on two types of activities: the development of statistical services and the creation of a pre-entry graduate professional program at the University of Karachi in Public and Business Administration. The former project was designed to produce a cadre of trained statisticians who possessed the latest skills for government service at the national and provincial level. It was generally acknowledged that the data base in Pakistan was poor and that reliable statistics were vital in the production of annual and multiyear development

plans. Since planning was assuming an increasingly important place in national development and the Ford Foundation was funding a team of American advisers to assist in the plan preparation, the statistical services project strengthened these efforts considerably. Personnel were also to be trained to conduct the census and periodic household surveys.

In a related area of activity, assistance was provided to establish an institute of Public and Business Administration at the University of Karachi to offer graduate training both at the pre-entry level and for government servants at the intermediate and senior levels. The expert consultants were to design a modern curriculum of management using the latest teaching techniques and equipment. The Institute was also to undertake research and provide consultative services for both public and private sector agencies involved in development activities. A contract was drafted with the University of Pennsylvania to provide technical assistance through consultants, administrators and instructors. The Business Administration Program became the more popular of the two and the University of Pennsylvania responded by providing a larger share of business administration faculty while reducing the scope of the public administration curriculum.

The attention of the United States Mission in Pakistan turned in the late 1950s to the difficult process of governmental reorganization. This took two forms: rationalizing the government structure and introducing new procedures in the decision-making process. Technical studies of administration were launched which produced a number of practical changes in the organization of both national and provincial government. A major accomplishment was the strengthening of the Establishment Division, the public service personnel policy-making office of the central government and the establishment of the Organization and Management Wing to undertake and direct continuous appraisal of organization and procedures.

By 1962 a constitution for Pakistan had been promulgated and steps were taken to reshape government structure in conformity with its provisions. The constitution delegated more administrative responsibility to the provinces and established the principle of local self-government. This created an immediate demand for more trained officers who could implement development programs at the operational level. The Ford Foundation had already anticipated this with the establishment of two Pakistan Academies for Rural Development (PARD), one in Peshawar for West Pakistan and one in Comilla for East Pakistan. Other training institutions for administrative officials emerged during this period: the Pakistan Administrative Staff College for top executives of the government; (this also supported by the Ford Foundation with the collaboration of the British Imperial Staff College at Henley-on-Thames), and three National Institutes for Public Administration (NIPA), one each in Karachi, Lahore, and Dacca. In addition, the Civil Service Academy in West Pakistan and the Gazetted Officers Training Academy for East Pakistan were graduating candidates for lower and middle-level administrative posts. In 1965, the Country Assistance Program, prepared by the United States Agency for International Development Mission to Pakistan, gave a very optimistic report of the development administration position in Pakistan.

> The ingredients for a major intensive and extensive program of administrative reform are present. Attitudes of senior administrators are more favorable now than a few years ago. Youthful leadership committed to change is appearing. More budgeted funds are available for administrative purposes than during the Second Five-Year Plan. More public servants have the required skills. Appropriate management systems have been designed and are awaiting installation. Much facilitating legislation exists to enable required organizational rationalization.[12]

The most comprehensive U.S. supported project to come from Pakistan was Project #105, Public Administration, to improve governmental administration by strengthening the institutional base for academic and in-service training through assistance to the NIPAs and the Civil Service Academy and the installation of public administration degree programs at the University of the Punjab at Lahore and the University of Dacca. A further object of this project was to promote the professionalization of the discipline of public administration through research, the creation of a professional association of scholars and practitioners, and the publication of a scholarly journal. To accomplish this ambitious objective, a contract was awarded to the School of Public Administration at the University of Southern California to provide guidance, technical assistance, and instruction at several locations in Pakistan and to provide a program in Los Angeles for advanced training for Pakistani officials. This part of the program had the unique distinction of being the only program established under the auspices of the United States Development Assistance Program for the exclusive training of officials from a single foreign country.[13]

A companion project, Project #140, Government Administration and its successor, Government Financial Management, were collaborative efforts between expert consultants from the United States and the Organization and Management Wing of the Establishment Division to improve the capabilities of key development agencies in budgeting and fiscal and revenue management. Finally, under the title of Assistance to Planning Agencies, Project #142, USAID assumed the funding of the Harvard Advisory Group, formerly supported by the Ford Foundation. This group provided expert consultancy to the National Planning Commission and the Provincial Planning and Development Committee. The Harvard Advisory Group had had a significant impact on the design and working of the first two Five-Year

Plans and had introduced modern techniques of mathematical modeling and national income analysis to these planning agencies. Furthermore, a number of Pakistani economists had been trained in development economics at Harvard University under the Ford-funded project.[14]

The sudden upsurge of interest in training, particularly technical training, during this period is a reflection of the preferences of President Ayub, an experienced military officer who valued technically proficient personnel both for the army and for the civilian bureaucracy. The Pakistani Army, then considered the finest in South Asia, took great pride in its professionalism which it had achieved through systematically spaced training programs for its officers. Ayub was convinced that professionalization of the Civil Service could similarly improve its performance and gave the various foreign donor-funded training programs his enthusiastic support.

Perhaps one of the most significant political developments of the 1960s was the implementation of the Basic Democracies concept as a fulfillment of the decentralization prescripions of the earlier Five-Year Plans. Plans for this tiered system of local government had first appeared in 1958 and generated a great deal of interest from the entire population. Local elected bodies called Union Councils were established and would play a major role in the design of both Five-Year Plans and annual development implementation plans. A Union Council would cover one or more villages encompassing a population of 10,000 to 12,000 persons. Members of the Union Councils (called Basic Democrats), of which there were 50,000 in each wing of the nation, were to elect representatives to higher levels of government, the Tehsil (West Pakistan) and the Thana (East Pakistan) Councils and these, in turn, to the District Councils where they would advise the appointed and the official members in the execution of their duties, particularly as they related to

national development issues. Each of the provinces was required to establish a Secretariat for Basic Democracies with responsibility for supervising the program and to see that the elections were properly carried out and that the elected bodies performed their assigned functions. The expectation of both the Government of Pakistan and the U.S. Mission was that the Union Councils would be active in development projects and would take responsibility for the operation and maintenance of rural works projects. The Americans had undertaken, as one of their first projects in Pakistan, the Village Agricultural and Industrial Development Project, Project #001, more commonly known as V-AID, which was an integrated effort to increase the welfare and productivity of the rural population and to provide unskilled employment to large numbers of villagers. Community government in West Pakistan, before the inception of the Basic Democracies Program, had been found to vary widely from established village panchayats in parts of the Punjab to no visible organization in some of the tribal areas. There seemed to be an inverse relationship between the extent of village organization and the need for rural development. What's more, as many writers on Pakistan have mentioned, the Pakistanis are so heavily involved with their extended families that they have very little loyalty left for any other kind of community, be it village or nation. The Basic Democracies, which would provide a standardized nationwide system of local government, was to have been the new dynamic vehicle for the implementation of the V-AID Program and its expanded second phase, the Rural Works Program. The objective of Rural Works was to build and repair roads, to build community water supply systems, health centers, schools, and community centers. Much of this activity was funded by PL-480 food grain sales. The flurry of activity at the local level led both the Government of Pakistan and the United States Mission to conclude that an extensive program of training newly

elected local government officials in the rudiments of development planning and monitoring would be of immediate importance. In 1968, a project for training and research for local government was established for East Pakistan, and in 1971 a project for the establishment of the Institute for Local Government-West Pakistan was authorized.[15]

Inherent in all projects relating to development administration was a participant training component. By 1969, most of AID's efforts in development assistance was concentrated in this area, culminating in the so-called GASI (Government Administrative Staff Improvement) Project which was (1) expected to strengthen economic decision-making abilities of key administrators to provide for more effective implementation of development programs, and (2) to encourage the Government of Pakistan to develop modern manpower development and personnel administration programs through the Establishment Division and the Public Service Commission. Mid-career training would be funded for an initial group of twenty officers at Williams College and Harvard University, with additional on-the-job training at other locations in rural administration, urban development, municipal management, financial planning and public enterprise management. Perhaps the most significant factor of the GASI Project is that it was the only project in the development administration sector to survive the tumultuous events of the 1965 War with India, the Civil War and emergence of Bangladesh, and the periodic suspension of United States aid to Pakistan these events brought on.

Beginning in 1965 the Public Administration Program of USAID began to fall on hard times, largely the fault of events which were beyond the control of the Mission but which put strained relations between Pakistan and the United States. A number of the major development administration and institution-building projects were scheduled to terminate between 1965 and

1968. It has always been intended that these would be renewed or followed up by supplemental projects, but the events of these years persuaded AID not to entertain any new project starts for West Pakistan. The war with India in 1965, during which time the U.S. Assistance Program for both India and Pakistan was suspended, was followed by a strategy change which switched project emphasis from West to East Pakistan.

The unsettled political environment which accompanied Ayub's decline, the growing strains between the eastern and western wings of the nation, and the resumption of martial law with General Yahya as Chief Administrator did not create an encouraging environment for the resumption of assistance at former levels. There is also evidence of increasing disenchantment on the part of both Pakistanis and Americans with the progress of development administration programs, less so with the training programs than with those that involved structural and organizational changes in the host country. The change of leadership interrupted the hoped-for devolution of development project implementation to the Basic Democracies, a goal that had figured prominently in AID strategy. Bhutto did revive the idea of local self-government, but the institutions were not sufficiently developed to have outlasted his period in power. Currently, there is a new wave of interest in local self-government with elections in late 1979 for the restored Union Councils. There is now a Markhaz Development Advisory Committee as well as a District Development Advisory Committee, each with some representation from the Union Councils. This latest version is still in the formative stage, but the Government of Pakistan is publically stating its confidence in the system.

One striking feature of the Pakistan administrative system is that the CSP has emerged from this turbulent period relatively unscathed. The integrity of this elite cadre and its indispensability to the government was sufficient to resist any

attempts to alter fundamentally its established position. Bhutto's attempt to eliminate the CSP, both through the provisions of the 1973 Constitution and through other statutory and procedural devices, was ineffective at dislodging the CSP. In November, 1980, the CSP enjoys the same position of prominence of three decades ago. Secretaries, joint secretaries, additional secretaries, heads of public corporations, divisional commissioners, and deputy commissioners are, in most cases, members of the CSP; if they are not, they eagerly emulate the style of the CSP to the best of their abilities. The present absence of national and provincial legislatures to which ministries are responsible means that bureaucrats once again have no public accountability. This fits in with the recognized CSP role. CSP members are still impressive in their command of English, in their apparent dedication to the service, and in the aura of general competence which surrounds them. If it was the intention of the United States Assistance Programs in the area of development administration to permanently change the style and self-perception of the CSP as a measure of modernization of the Pakistani bureaucracy, then it can hardly be said that the effort was a success.

Effectiveness of the U.S. Response

As has been mentioned, by the early 1970s there was only one project remaining in AID's Pakistan portfolio which dealt with development administration, GASI. This project covered participant training in a wide variety of fields, including teacher training and education administration as well as the usual government management fields. The Public Administration Division of the USAID Mission in Islamabad had been disbanded and the remnants of the development administration activities had been assumed by the Education and Human Resources Division, in which assistance to educational institutions was of the highest priority. The Field Budget Submission for Fiscal Year 1976

commented that "since its inception in FY 69 and up to 1972, progress was not satisfactory. GASI has been redesigned three times to meet changing needs of the GOP. The previous two years have shown some improvement."

In the final analysis, the accomplishments of the United States Development Assistance Program to Pakistan in the development administration sector have made little impact either on the structure, or operation of the government's administrative services. In training, somewhat more success is evident, but the impact of training on the operational style of the senior bureaucracy has been minimal. This lack of accomplishment remains today, even though a significant amount of time, human resources, money, and individual effort was spent. There are a variety of reasons for this mediocre showing, and there is sufficient blame to be spread around to all who were concerned: the Government of Pakistan, AID's changing strategies, the vagaries of U.S. Foreign Policy, contradictory views of Congress and senior administrators in Washington, the shortcomings of some Mission personnel, consultants, and contractors. Mistakes, miscalculations, unfortunate timing, all seemed to converge during the 1965-69 period. Their combined effect dealt a severe blow to AID's operations in Pakistan, and particularly to its efforts in development administration.

Obviously the existence of the CSP and the awesome role it played has been a significant factor. As generalists, CSP officers refused to take seriously the importance of specialization and the degree to which specialists could make a contribution at the middle and upper levels of the bureaucracy. Most members of the CSP had no specific complaints about specialization and technical experts so long as they were only peripheral to administration and provided their specialized inputs only on demand. The specialist was not to become a major decision-maker; this function continued to require the talents of the generalist and the experience of one who had served

in the prerequisite field positions in the CSP. For the CSP progress was not satisfactory. GASI has been redesigned generalist, pre-entry education of good quality was sufficient, provided it produced a person of gentlemanly bearing who was fluent in English. In-service training under these circumstances was considered to be more of a liability than an asset, or at least a waste of time and effort, and the CSP refused to incorporate this kind of training as part of its career development policy. Throughout the decade from 1958 to 1968 when the Development Administration Program funded by the U.S. was was at its peak, the CSP stubbornly clung to its image as an elite corps of generalists, educated rather than trained, of a demeanor unaffected by the transition of the Indian subcontinent from a colonial possession to self-determination.

A review of the records of the participant training office of the USAID Mission in Islamabad reveals the interesting fact that of those members of the CSP who were sent abroad under AID auspices, the overwhelming majority passed up opportunities to enroll in degree programs and preferred to select short-term seminars, workshops, or inspection tours. Degree programs were thought to be unnecessary or so time-consuming that they would adversely affect promotion and choice assignment possibilities. For those returning to Pakistan with advanced degrees, the expected type of employment was not in the line ministries of the government, but rather in the development training centers, such as the NIPAs, the PARDs, the graduate professional programs at the universities, where they were to engage in instruction and in research. These degree holders were proficient in public administration theory and possibly practice in the western nations, but not in applications appropriate to Pakistan and therefore of little use in the higher echelons of government operations and decision-making.

Evaluations of the performance of the Public Administration Division of USAID/Pakistan were not done on a regular and systematic basis, but there exist in the files of AID Reference Center in Washington, the former USAID library in Islamabad, now housed on the premises of the UNDP library, and in the Mission itself a number of project review documents, exit interviews and reports by mission direct-hire personnel and contractors, trip reports, and specially commissioned reviews of programs which shed some light on the progress of development administration programs. One of the earliest of these reports is by O. R. Conway, a professor at Syracuse University entitled Report of a Mission to Pakistan in 1959 for USICA (Pakistan, U.S. International Cooperation Administration, unpublished mimeograph). This report reviewed the progress of the University of Pennsylvania contract with the Institute of Public and Business Administration at the University of Karachi. Professor Conway found the business administration program to be prospering, but recommended for various reasons the termination of the public administration program. His major complaint concerning the latter was based on his information that the graduates were not being accepted by the Government of Pakistan for entrance into the civil service, except for a few in junior technical positions for which he presumed they were overqualified. At the end of the first four years of the existence of the public administration program, there were 28 graduates or near graduates whom Professor Conway considered qualified by virtue of their training, but of these only three had succeeded in securing positions in the Superior Services of the government.

Professor Conway's report goes on to fault the University of Pennsylvania contract team for its over-preoccupation with the business curriculum at the expense of public administration. He found the latter faculty to be weak in qualified instructors. He criticized the USICA Mission and the designers of the project for failing to properly assess the predisposition of the

civil service against candidates who had received pre-entry training in a typically American-based program which made no apparent concessions to the Pakistan environment. Although the institute did provide some short-term in-service courses to employees of government ministries--the central government was located in Karachi at the time--this was done in an ad hoc fashion, did not become a major thrust of the program, and therefore was never institutionalized as part of the mid-career training pattern for civil servants. He concluded with the statement that: "the program failed because it challenged one of the principle traditions of the CSP," that the American pre-entry training was not a substitute for the accepted practice of British liberal arts and proto-legal education which acceptable candidates could only acquire in established liberal arts programs in Pakistani, British, or other commonwealth universities built on the British pattern.

The greatest concentration of American-funded development administration training during the peak years of 1958-1968 was at the National Institutes of Public Administration (NIPAs) in Karachi, Lahore, and Dacca and at the Civil Service Academy in Lahore. The latter institution was found to be an inappropriate location for American-styled public administration training, as the curriculum was based on the immediate needs of junior and middle-level officers anticipating assignments to field stations. Its purpose was to prepare revenue collectors and magistrates with instruction principally in British and Koranic law and Pakistani and Islamic history and institutions.

An important part of the program consisted of field trips for the trainees to observe incumbent officers going about their daily tasks as magistrates, or revenue, agricultural, fisheries, or forestry officers. Under the circumstances there was little time nor inclination for instruction in western management techniques, and for the most part the leadership of the

Academy --mostly CSP members themselves--failed to appreciate their relevance to the careers of young CSP officers on their way to becoming deputy commissioners.

A much more substantial relationship evolved between the United States Mission and the NIPAs. In actual fact, the offer of United States assistance and the implementation of Project #105 brought these institutions into existence. This was the project whereby mid-level Pakistani officials received intensive five-and-one-half month exposure to American institutions, both private and public, at work. Such institutions were the TVA, the New York Port Authority, the railroads, public utilities, metropolitan governments and the like. By 1960 this project was revised to accomplish as much and more on Pakistani soil through the three public administration institutions which were officially inaugurated the following year. Initially all instruction was done by University of Southern California contracted American faculty who rotated among the three campuses. The largest number of American long-term instructional personnel was 15 persons during 1962. The intent was to use an intensive, total immersion, crash approach to build up all of Pakistan's administrative training institutions at the same time, including the PARDs, the CSA, the GOTA and the university-related graduate programs. This effort was assisted by President Ayub's enthusiastic endorsement of training as an essential ingredient for coping with the nation's development problems. However, Ayub's enthusiasm was not easily transferable to the top civil servants and the manpower policy makers. In February, 1966, Kazi Anwarul Haque, Education Minister and Chairman of the National Administrative Training Center, bemoaned the fact that many government agencies were reluctant to send their officers to the NIPAs and other institutions for training, due, he surmised, to the newness of in-service train- and the hesitancy of officers to leave positions, as it involved

involved dislocation of work routine and considerable personal inconvenience. Officers from remote areas appeared more eager to enroll in training programs because it allowed them an opportunity to visit the cities and perhaps line up a more desirable future position. In most cases the rewards for training were not worth the even temporary inconvenience that the training programs entailed.[16]

Writing in 1968 of the progress of the NIPAs, Professors F. Burke Sheeran and Robert Abramson, both of the University of Pittsburgh, complimented the program on its aggressive development and rapid growth, but also observed that this rapid growth had produced accompanying problems. The American faculty had been spread too thin and the Pakistani faculty was neither large nor experienced enough to take up the slack. Of great significance according to these authors was the nature of the leadership, not only of the NIPAs but also of the allied development administration training centers. The members of the Boards of Directors, or their equivalents, and the directors themselves were rotated too frequently and never acquired the knowledge and experience to function effectively in their respective positions. Directors, in particular, were usually from the ranks of the CSP; they were not necessarily prepared to head training institutions, nor were they prepared to stay in these positions any longer than the standard assignment. As in the case of the trainees, there were no rewards for long term involvement in the direction of these institutes. Under the circumstances, when an institution is new and growing rapidly, particularly in a climate which is not entirely supportive, it needs a dynamic and committed leadership. The directors observed by the authors had neither this type of motivation, nor were they professionally qualified for their positions. Sheeran and Abramson further commented on the NIPAs' inability to follow through on two of the goals of Project #105,

the creation of centers of research excellence, and the professionalization of the discipline through the establishment of a membership association with regularly scheduled meetings and a quality journal. Although there was some linkage among the NIPAs and between them and other institutions and the university programs, this took place through individual initiative rather than through any established channels. Moreover, the NIPAs were never able to serve as a consistent source of consultative services to government and private institutions, mainly because they lacked the resources to publicize their services and because the government agencies, in particular, never came to appreciate the type of services they had to offer.

In a general concluding comment on the NIPA experience, the two scholars from Pittsburgh made reference to a thesis first posited by Fred Riggs, widely known as an authority on administration in developing nations. An administrative system is a sub-system of a system which includes a number of other sub-systems, such as an economic sub-system, a social sub-system, a religious sub-system, a kinship sub-system, etc. These sub-systems are extensively intertwined and each is impossible to isolate from the rest. It is extremely difficult to change one sub-system without in some way influencing the others, and therefore a great deal of slippage and resistance to change would result. The development administration projects tried to bring about change in a single sub-system and tended to ignore the others. The total system, which is the sum of its sub-systems, tends in Pakistan to be elitist, hierarchical, and centralized. The administrative sub-system would normally follow this pattern and be reinforced by the existence of the other sub-systems. The development administration program funded by the United States and other donors was not designed to effect change in the other sub-systems and therefore had little impact on the system as a whole.[17] Not

even the Pakistanis, despite the enthusiasm of General Ayub during the late 1950s and early 1960s for de-elitizing the administration through open entry, lateral transfers, decentralization, and technical training, were willing to take the political and social risks of altering the system in any major way.

Another critical area of concern of the American-funded program was the Statistical Support Services Program (Project #037). Here again was an example of a major effort to improve the performance of key development agencies through the provision of more reliable data for effective decision-making. This was a vast undertaking, attempting to cover all types of data collection, storage, and retrieval. The Mission personnel consistently acknowledged that progress would be slow because the project covered such a variety of activities and involved, as much as anything else, the need to educate decision-makers to the importance of sound statistical evidence. The Country Assistance Program of FY 1966 mentions inconsistent accomplishment because of the lack of trained statisticians, bureaucratic rigidity which fails to acknowledge the utility of good data, and the rapid turn-over of government personnel which militates against the need for statistical support activities. The document comments that the statistical support work for the presentation of the Second Five-Year Plan to the Consortium for Pakistan was poor, a reflection of the Government of Pakistan's indifference to statistics, and that the few trained statisticians were having a minimal input into the planning process. This observation is even more surprising since the Planning Commission was supposed to be the locus of the best trained economists and planning specialists in the country. The CAP commentary concludes that the United States never recognized the country's human resource limitations at the start of the project and should have provided more intensive

technical assistance in the early stages of implementation. Furthermore, there appeared to be a conceptual conflict between the Mission and the Government of Pakistan over the organization of a statistical network, with the former wanting a decentralized structure with stress on increasing the provinces' data production capabilities, while the government wanted the functions retained for the center. This controversy likewise revealed the extent to which the Government of Pakistan, despite the rhetoric of the Five-Year Plans, lacked a true commitment to meaningful decentralization. This issue continued to be a source of tension between the Government and the Mission.

More recently when the suspension of aid to Pakistan and the decision to start no new projects was lifted, the Mission proposed to revise the Statistical Services Project, naming it Development Impact Measurement (Project #440). The Activity Narrative appearing in the Annual Budget Submission, FY 80 commented on progress to date and noted that although considerable support had been provided, this had been "piece-meal" and scattered too widely among a variety of activities and institutions to have been truly effective. Elsewhere in the same submission, the Mission, in describing this new project, commented on the lack of information for development planning. "Agriculture and population consuses are out of date. From 1950 to 1970 the United States gave "piece-meal" assistance to the Government of the new nation of Pakistan in these areas. Several statistical agencies were established. In 1970 most of this scattered help was stopped, pending a government reply to the recommendations of a World Bank-sponsored report that incorporated the advice of Pakistani, the United Nations, United States, and Bank experts on what had to be done to improve the statistical systems. The Government of Pakistan did not place a high priority on this problem at the time."[18]

Dr. Garth Jones, currently Dean of the School of Public Administration at the University of Alaska, served for six years with the University of Southern California program both in Los Angeles and in Pakistan, and spent a subsequent three years as the chief of the Public Administration Division of the USAID Mission in Pakistan. In his End of Tour Report which he submitted to the Mission on August 12, 1969, he remarked that the Public Administration program in Pakistan was "moribund." "The problem was that there never had been a systematic effort...to develop in consultation with the appropriate Pakistan officials, a satisfactory public administration program.[19] The consultants who had been recruited had "difficulty relating to higher and broader levels of organizational abstractions and operations.... They are products of the American bureaucratic culture which is organized around the specialist.... The way to success in the United States, unlike Pakistan, is not the generalist route. As long as the 'general service' image of public administration prevails and as long as such persons (specialists) are recruited to staff key PAD (Public Administration Division) positions, the subject of public administration has little to offer in assisting the national development of Pakistan." The 'general service' model of public administration prevails with technical assistance activities being confined to low skill areas in the mechanical processes such as work simplification, paper management, position classification, and accounting.[20]

Jones lists a number of deficiencies in the AID approach, most of them dealing with imperfect communications between the USAID personnel and key Government of Pakistan agencies such as the Ministry of Finance. Pakistani officials, he maintained, "speak the language of scholarship, while AID consultants speak the language of the workplace."[21] There appeared to be little common ground. Pakistani officers have difficulty operationalizing from management theory and need appropriate training,

but the American instruction lacks the capacity to link the Pakistani's scholarship to the day-to-day functions of administration required by the governmental system.

Jones comments that the record of the public administration programs in the important area of research had been "dismal". "Bureaucrats usually will not publish because it is a dangerous game. In Pakistan this is particularly the case. Pakistanis as scholars are too frequently lazy and willing to accept the superficial.... Secretiveness and suspicion typifies the entire bureaucratic process. Pakistanis fear each other and divulge among themselves only the barest minimum of information". In a letter to Jones from a Pakistani research scholar, the report quotes: "Pakistan officials 'don't like researchers".[22]

Another observer of the public administration program in Pakistan, M.B.A. Abbas, Senior Specialist from the East-West Center in Honolulu, made similar comments in a report prepared in May, 1970. He found training programs in public administration to be isolated from the real world of management. While the administrative system in Pakistan might not be effective in bringing about rapid economic growth, the alternatives provided by the Americans were unrealistic and irrelevant. The key difficulty, he noted, was the absence of motivation--in volunteering for training by Pakistani government officials and in carrying the fruits of that training into future operational assignments.[23]

Perspectives on the Past

There is a repetitiveness to the commentaries on the public administration program, but there is also the strong suggestion that many of the shortcomings could have been overcome in time. Acceptance by the Government of Pakistan of a less elitist civil service with recognition of the role of specialists with technical skills would eventually come about. In

time, training programs would be welcomed as necessary and appropriate to career development of administrative officials, and with the growing numbers of trained personnel a sufficient critical mass would be able to ensure modernization and rationalization of administrative structure and behavior. Furthermore, few observers doubted that decentralization was the best course for Pakistan and that it would eventually take place along with opportunities for the public to participate in making decisions which affected their welfare. In the final analysis, none of the critics was willing to write off public administration in Pakistan and were generally up-beat in their conclusions and recommendations. The expectation of eventual success, other things being equal, was ever present in their respective reports.

However, other things did not turn out to be equal, and that is the tragedy of the development administration program. A variety of external variables came into play, factors over which the USAID Mission had little control, and most of these occurred during the very important period of 1965 to 1972. Many of the major projects in the development administration sector were due to terminate between 1965 and 1968. Several of the more important of these were to be revised and renewed on the basis of actual field experience in Pakistan. However, when war broke out between India and Pakistan in mid-1965, the United States decided to suspend aid to both nations and, when aid resumed a short time later, the level of rapport that previously existed between the Mission and the Government of Pakistan was never regained. This episode proved to the Pakistanis how vulnerable they had become through dependence upon foreign aid and that they would have to exercise closer scrutiny over assistance activities in the future. When funding levels were restored, they were done so with the provision that no new project starts would be approved. Thus, the follow-on projects in development administration that had been anticipated were

postponed. Furthermore, by 1968, Title IX had been incorporated as part of the Foreign Assistance Act and was pre- sumed to be the guideline for resumption of development administration sector funding.

The operative provisions of this Title as revised in 1967 specifically provided for "the development of popular participation in the process of development with special reference to local government democratic institutions."[24] Professor Ralph Braibanti of Duke University who was asked to review the provisions of Title IX with Pakistani officials concluded that such "a grand strategy for the engineering of a political system for Pakistan should not be attempted. The Government would seriously resist this and regard it as an excessive intrusion into the internal affairs of Pakistan. There was a very strong sentiment (among Pakistani officials with whom he spoke) indicating a disenchantment with the United States, and particularly with the notion that the United States has any right, or indeed, competence to interfere with a political system as it has developed."[25]

Pakistan's own experience with increased local participation in the Basic Democracies experiment had not been all that successful. With the politicization by President Ayub of the Basic Democracies for the purposes of the presidential elections in 1965-66, they lost their credibility as instruments of rural development, and with the President's declining popular support after 1965, the local councils had begun to atrophy. Therefore, Pakistani officials were not kindly disposed toward the American suggestion that the effort be resumed as a condition for a further development assistance. Nor was this consistent with the Pakistanis own resolve to keep a tighter rein over foreign assistance activities.

Another American strategy move which did not improve relations with the Government of Pakistan was the decision to switch development emphasis to East Pakistan. The Mission had

concluded that too much of the assistance program had focused on the West Wing where most of the industries and the infrastructure was located. The Harvard Advisory Group had reported on this alleged bias in American assistance and had made an initial recommendation in this direction. The charge irritated many in the central government, both because they felt it was not true and because it would add to the already strained relations between the two wings. Since emotions were running very high on this issue in the late 1960s, accusations of this sort, which increased the Bengali's expectations of development assistance, did little to ameliorate the environment in which development assistance was expected to take place, with some Pakistani officials charging eventually that the American policy had contributed to the outbreak of the civil war in 1971.

Among other issues which had little to do with assistance programs but which affected the relations between Pakistan and the United States was the former's growing friendliness with the People's Republic of China at the height of America's involvement in the Vietnam War. When this was linked to Bhutto's perceived drift toward the left, his nationalization of various activities in the private sector, and his attempt to revolutionize the administrative system of Pakistan, relationships with donors became further strained. Bhutto's abolition of the Civil Service of Pakistan might well have turned out to be a boon to future development administration programs had it been less sweeping and less politically motivated. With the rigidity of the CSP swept aside, there would have been room for a new type of bureaucrat, trained in modern management techniques. As it turned out, Bhutto's reforms created a personnel vacuum at the top decision-making levels, since there were no trained alternatives available.[26] The Prime Minister and his closest advisors were unable to come up with a manpower

policy which would allow donors to design a new strategy for training support. This accounts for the hiatus reported on in the FY 1980 Annual Budget Submission where assistance would be resumed only when a clear presentation of government personnel policy was made.

Finally, the most recent suspension of aid to Pakistan under the provision of the Symington-Glenn amendment to the Foreign Assistance Act has precluded any serious discussion of assistance to public administration training. Pakistani officials are unsure of future strategy, although they implied that assistance for management training would be welcomed. Since the overthrow of Bhutto, the Civil Service of Pakistan has regained its former position of prominence, for its indispensability for making things work is still recognized. Its distinguishing characteristics are still quite intact--the articulateness and fluency in the English language, the self confidence, the urbanity of individual conduct, and the ease with which positions of responsibility are assumed. At the same time, the Zia regime is making a renewed attempt to stimulate some decentralization of project implementation and popular participation at the local levels, although a systematic strategy for this has not yet evolved.

It is difficult to suggest a credible scenario for the future from what has happened in the development administration sector. Few, if any, of the projects designed and implemented between 1955 and 1965 were complete failures. It is easily conceivable that on the basis of accumulated experience in Pakistan, revisions could have been made here and there which might have helped immeasurably. More selective recruitment of expert consultants who might have cultivated some empathy for their colleagues and an understanding of the indigenous political and administrative environment could have made a great deal of difference. But above all, more time, more predictable

funding, and freedom from unrelated political and diplomatic pressures would have provided the conditions where all efforts might have had a better chance of success.

Two NIPAs continue to exist in Pakistan, but these do not play a crucial role in producing the model Pakistani civil servant. The government still needs more specialists, particularly those who have statistical skills, but doesn't know how to utilize them or reward them. High government officials admit their data are almost useless, but this feeling of futility may produce a greater appreciation for statistical support services. Although Five-Year Plans have come and gone with little perceptible impact, the ad hoc type of decision-making has proved to have been inefficient and sometimes counterproductive. The Planning Commission has been restored to its pre-1970 position of significance. No doubt it will come to value the services of trained specialists.

A convincing argument can be made that the choice of projects for Pakistan was appropriate, and that a little bit of luck and perhaps more sensitivity towards Pakistan's peculiar needs and absorptive capacity would have turned the development administration program into a success. A more careful integration of a far flung array of projects and more concentration of technical assistance in fewer institutions might have produced a more cohesive and identifiable body of activity. This, in turn, would have created the necessary critical mass to have made a more impressive impact on the structure and operations of the administrative system, a result fondly hoped for by the USAID Mission. A more consistent level of annual funding would have allowed for better planning and project preparation. More systematic methods of project evaluation might have rectified mistakes sooner. This is all conjecture and has never been documented.

A final mention muyst be made of the political climate in which administrative change can take place. If Pakistan can

be taken as an example, periods of stability and economic growth are also periods of more authoritarian rule, approaching, in some cases, what is called the "garrison state." However, this is not the ideal condition for decentralization, popular participation, nor even administrative change. On the other hand, more open civilian regimes have not produced clear-cut policies within which significant structural change can take place either. Civilian regimes have been no more willing to take risks than have military regimes. Foreign assistance in Pakistan, as in most other developing nations, operates at the whim of political exigency. These exigencies have not been kind in recent years to the course of foreign assistance in Pakistan.

ENDNOTES: CHAPTER IV

1. For a discussion of the CSP see: Braibanti, Ralph "The Civil Service of Pakistan, Karachi, Communications Media Division, USOM/Pakistan, Sayeed, Khahed Bed, "Political Role of Pakistan's Civil Service," Pacific Affairs, XXXI, (1958), pp. 131146, Bunkr Shahid Javed, Twenty Years of the Civil Service of Pakistan: A Revolution, Asian Survey IX, No. 4, (April, 1969), pp. 239-254.

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5. Richard S. Wheeler, The Politics of Pakistan. (Ithaca, Cornell University Press, 1970), p. 132.

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12. USAID/Pakistan, Country Assistance Program, Development Administration Goal Plan, (August 31, 1965), pp. 4-5.

13. For a detailed description of and commentary on this project, see Burke F. Sheeran and Robert Abramson. Pakistan's National Institutes of Public Administration. (Pittsburgh: Graduate School of Public and International Affairs, University of Pittsburgh, 1968).

14. Ford Foundation, Design for Pakistan (A Report on Assistance to the Pakistan Planning Commission by the Ford Foundation and Harvard University), (February, 1975).

15. For a discussion of the Rural Works Program in Pakistan see: John Woodward Thomas, "The Rural Public Works Program in East Pakistan", in Development Policy II--The Pakistan Experience, ed. by Walter P. Falcon and Gustav F. Papened, (Cambridge: Harvard University Press, 1971).

16. Sheeran and Abramson, op. cit., p. 27.

17. Sheeran and Abramson, op. cit., pp. 116-117.

18. USAID/Pakistan, FY 1980 Annual Budget Submission, (May, 1978).

19. Garth Jones, End of Tour Report. USAID/Pakistan, (August, 1969), (mimeographed) p. 2.

20. Jones, op. cit., p. 3.

21. Ibid.

22. Ibid., p. 5.

23. M.B.A. Abbas, Public Administration Training in Pakistan: A Critical Appraisal. (Honolulu, Hawaii: East-West Center, May, 1970).

24. Ralph Braibanti, Report on a Visit to Pakistan and Turkey, (August 6--September 13, 1968), (mimeographed) pp. 4-5.

25. Braibanti, op. cit., pp. 7-8.

26. Burki,op. cit., pp. 146-147.

CHAPTER V
PAKISTAN'S POPULATION, HEALTH, AND NUTRITION PROGRAMS

Introduction

There are conflicting statistical profiles of Pakistan, especially where specific categories of demographic data are concerned. The variance in statistical reports is important, particularly as it relates to population. The statistical inconsistencies are less vital to a discussion of health or nutrition promotion activities, and therefore population, health and nutrition findings will be reported out separately.

Despite the lack of a solid statistical base there is basic agreement among most observers about health conditions and population programs, and therefore some generalizations are possible. The 1974 edition of the Area Handbook for Pakistan, Nyrop, et.al., provides some vital statistics.[1] They report the 1972 population to be almost 65 million people with an annual population growth rate of 3.5 percent. According to the same source, 40 percent of all deaths are those of infants, 46 percent of the population is younger than 15 years and 74 percent live in rural areas.

The three areas of U.S. assistance with which this discussion is concerned--population, health and nutrition--respond to Pakistani needs as exposed by statistical profiles. The United States expenditures in these three areas of assistance are shown below. This information has been taken from AID records for the period 1952-1980.

AID EXPENDITURES IN PAKISTAN 1952-1980	
Population and Family Planning	$25,806,000
Health Promotion	52,070,000
Nutrition Promotion	276,000
	$78,152,000

In addition to this amount, total expenditures include the dollar value of PL 480 food commodities which were distributed in various feeding programs and $67,761,000 advanced as loans to enable Pakistan to improve health services.

Population, health, and nutrition programs have been examined from various points of view. In this chapter subsets of information, the titles of which are listed below, are presented for each program:

1. Background
2. Relevant Government of Pakistan Activity
3. Relevant USAID Assistance
4. The Impact of AID Assistance
5. The Policies and Priorities of
   a. Pakistan
   b. US/AID
6. Future Programs
7. Outstanding Issues

Population Programs

Background

The following table illustrates some of the differences which exist between often-quoted sources concerning the size of the Pakistani population.

SELECTED ESTIMATES OF PAKISTAN'S TOTAL POPULATION GIVEN BY SOURCE AND YEAR

POPULATION IN MILLIONS				
YEAR	WORLD BANK[2]	U.S. BUREAU OF CENSUS[3]	BURKI[4]	GOVERNMENT OF PAKISTAN[5]
1901	16.6		16.6	
1911	19.4		19.4	
1921	21.1		21.1	
1931	23.3		23.3	
1941	28.3		28.3	
1951	33.8	40.4	33.8	
1961	46.2	51.7	42.9	46.9
1971	69.3	67.5	64.9 (1972)	64.9 (1972)
1977	79.8	74.9		76.8 (1978)

The variations appear to emerge from different estimates of the extent to which the Pakistani Government underenumerated during censuses. For example, the World Bank estimated that the Government of Pakistan's count was short by 6.3 percent in 1972. This undercount estimate explains the discrepancy between the World Bank's 69.3 million figure and Nyrop's 64.9 million. (Nyrop accepts the GOP statistics.) Some estimates of underenumeration are as high as 16 percent. While this variant statistic issue is important and cannot be ignored in a discussion of Pakistan's demography, the best that an observer can do is to use "good estimates" of the changes and

trends which are occurring. It is essential to bear in mind that perceived trends, on which conclusions and recommendations are based, represent statistical estimates of population distribution. This caveat, that conclusions and recommendations are based on estimates, is important to the discussion which follows.

Historically, Pakistan* has had high birth rates and high death rates. Kingsley Davis, who has made a detailed study of Pakistan's population changes, states that the crude death rate from 1901 to 1910 (of the sub-continent) was 42.6 per 1,000 population.[6] By 1978 the World Bank estimated Pakistan's crude death rate per 1,000 to be thirteen.[7]

Life expectancy rates provide an additional basis for the identification of population trends. Life expectancy at birth between 1901 and 1910, Davis writes, was twenty-three[8], and the World Bank estimate for 1978, the most recent year for which data are available, was fifty-seven.[9] Statistics also indicate that life expectancy at birth is greater for men than for women. In 1968 male life expectancy was calculated to be 52.9 compared with female expectancy of 51.8.[10] In 1974 the U.S. Bureau of the Census reported male life expectancy at fifty-one and female at forty-eight.[11] It should be noted also that urban dwellers can expect to live longer than rural residents.[12]

*Although the name "Pakistan" formerly included the two non-contiguous areas known as East Pakistan and West Pakistan, all reference here, even historic reference, shall pertain only to the area we call Pakistan in 1980.

The chart which follows shows life expectancy at birth for the years between 1901 and 1978, from a number of different sources.

LIFE EXPECTANCY, PAKISTAN

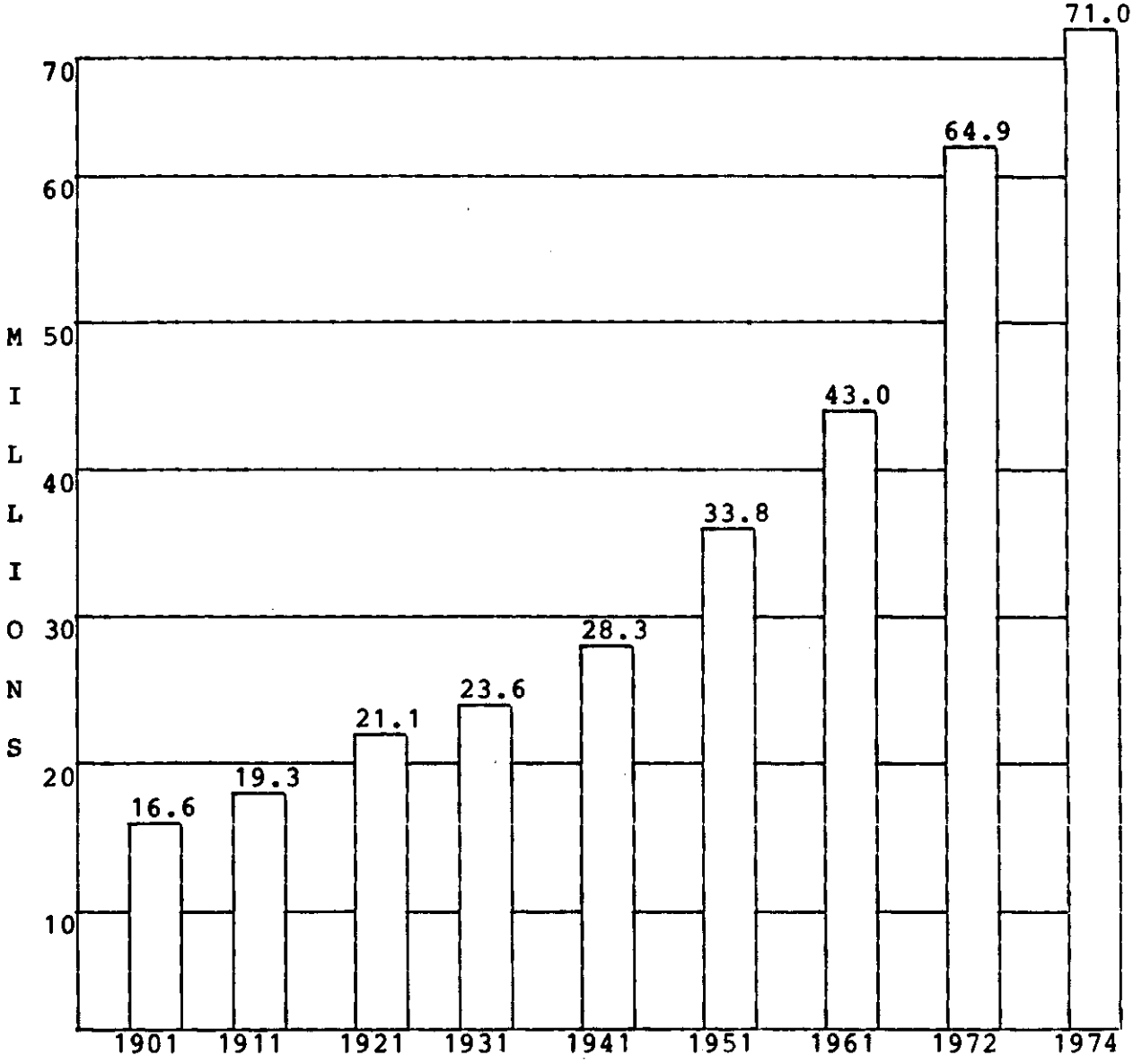
YEAR	BOTH SEXES	SOURCE
1901-1910	23 years	Kingsley Davis
1962-1965	46 years	U.S. Bureau of Census
1973	50 years	World Bank
1974	49.4 years	U.S. Bureau of Census
1978	57 years	World Bank

	FEMALES	MALES	
1968-71	51.8	52.9	World Bank
1974	48	51	U.S. Bureau of Census

While these changes in death and life expectancy rates were taking place, infantile mortality remained relatively high as reflected in the Government of Pakistan published rate of 130 per 1,000, for 1971.[13] The government attributes this high infant mortality rate to the lack of maternal and child health services and to malnutrition.[14]

In sum, the effect of these changes in rates over the years is that while mortality rates have lowered, birth rates have not followed suit. This has meant a steep increase in population growth as may be seen in the following bar graph.

PAKISTAN'S POPULATION GROWTH 1901 - 1974



Source: Adapted by Nyrop, et.al., (op.cit.) from Fazlur R. Khan, Sociology of Pakistan, Dacca (1966), and Mohammad Afzal "1972 Census" Pakistan Development Review XII:2 (Summer, 1973), pp. 123-133.

Note: 1974 is estimated, while other years reflect census data.

The decadal percentage point increases in population growth, which occurred between 1901 and 1972, range from a low of 1.8 percent for the years between 1911 and 1921, to a high of 21.1 percent for the period 1961-1972. Based on the 6.1 percentage point increase between 1972 and 1974, the current population growth rate is estimated to be three percent per annum. If the rate remains constant, population would double in 23 years. The population is estimated at 86 million today (up from 71 million in 1974.)

According to Kingsley Davis' Demographic Transition Theory, populations undergo evolutionary changes. As improvements in the quality of life occur, death rates decrease. Birth rates, which are held high, probably on a conscious level to offset high death rates, can be expected to remain high for a period of time before dropping to match the decrease in death rates. Despite the decrease in Pakistan's death rate, the crude birth rate remains high.

Average Vital Rates (per 1,000 Population)

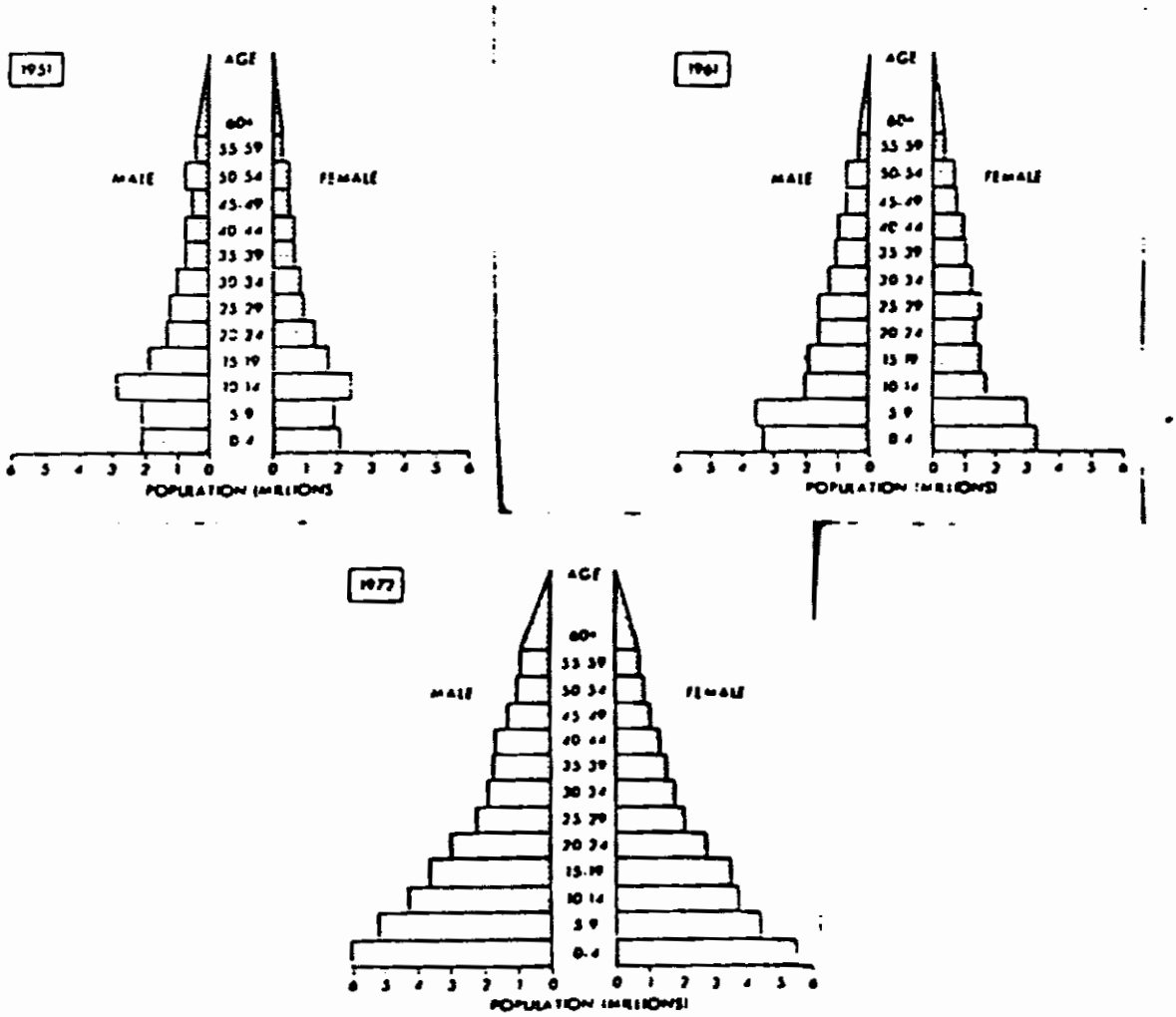
Subcontinent	Crude Birth Rate (CBR)	Crude Death Rate (CDR)	Growth
1901 - 1910	49.2	42.6	.66
1911 - 1920	48.1	47.2	.09
1921 - 1930	46.4	36.3	1.01
1931 - 1940	43.2	31.2	1.40

These figures suggest that the drop in the Crude Death Rate (CDR) is no new phenomenon. The fact that the trend shown in the table is continuing is generally accepted. Davis and the World Bank[16] estimate that the birth rate remains over 40, and the U.S. Bureau of the Census gives a 1976 figure of between 44-45 per 1,000 persons. The crude death rate is reported

by the U.S. Bureau of Census to be 13-15 per 1,000 population. As the years pass, and there appears to be no reduction in the rate of population growth, the specter of a population double its present size, competing for goods and services which presently are inadequate, can be viewed only with consternation. The point has been made that while there are differences in total population estimates, both Pakistanis and other experts agree that the population is increasing at an alarming rate. Nyrop concludes that "Government birth limitation programs are generally ineffective."

As with many other countries at this stage in their development, Pakistan has a large and growing population of young people. The following population pyramids illustrate this point:

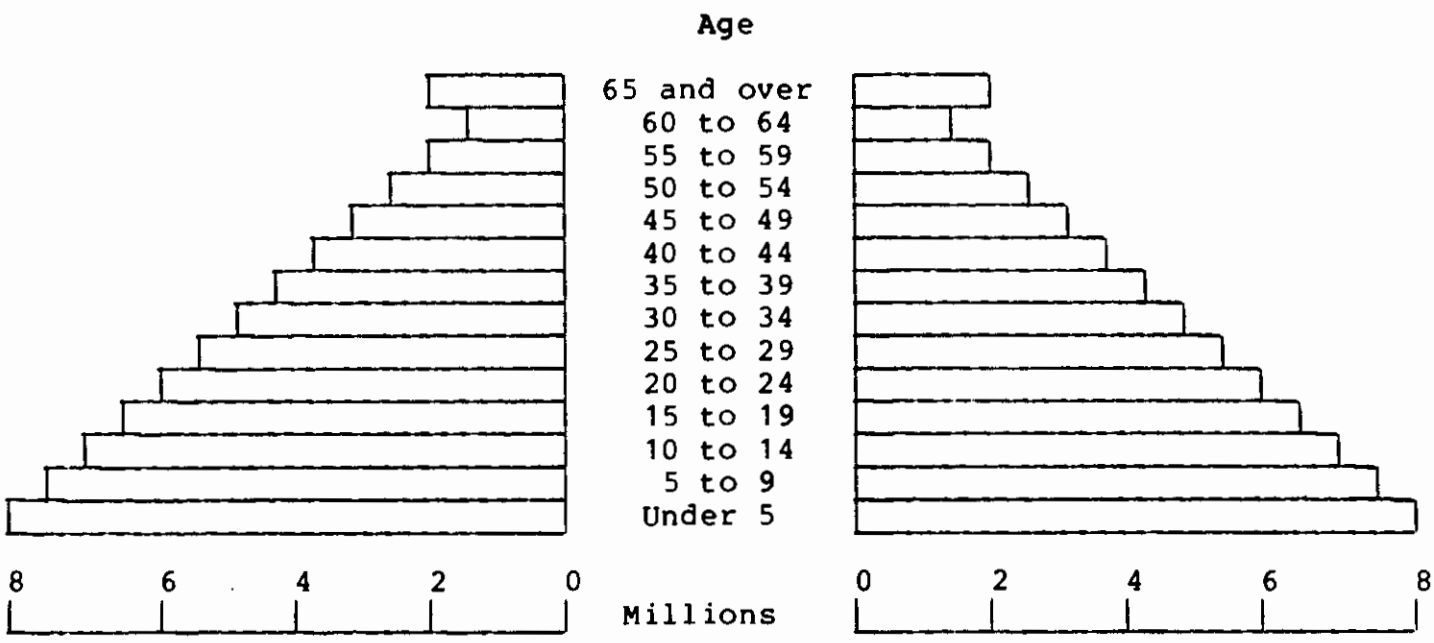
PAKISTAN POPULATION PYRAMIDS FOR 1951, 1961, AND 1972



Source: Adapted by Nyrop, et.al., (op. cit.) from Shahid J. Burki, PAKISTAN: A Demographic Report XXIX:4, Washington (1973), pp. 10-11.

Although estimates vary, it seems that half the population is, or soon will be, aged 15 years or less. This trend may be seen to be emerging in the most recent U.S. Bureau of the Census estimates which are illustrated below.

POPULATION OF PAKISTAN, BY AGE AND SEX:
July 1, 1979



Source: Bureau of the Census, Country Demographic Profiles: Pakistan (March, 1980)

This population distribution pattern is cause for further concern since it is worsening the imbalance which exists between the "provider" and the "provided for" elements of society.

Relevant Government of Pakistan Activity

The Government of Pakistan population programs commenced in the mid 1950s on a modest scale, and increased in size through the 1960s and 1970s. They are first mentioned in the First Five-Year Plan, with each successive Plan indicating a greater level of effort and expenditure. A brief summary illustrates this point.

1955-65 First Five-Year Plan	Assistance to private sector agencies, especially the Family Planning Association of Pakistan (FPAP). (See Appendix A.)
1960-65 Second Five-Year Plan	A policy to reduce the birth rate was articulated. Provision of some family planning (FP) goods and services to the public, especially the IUD.
1965-70 Third Five-Year Plan	The goal of reducing the CPR from 50 to 40 by 1970, was set. A pilot project, a Continuous Motivation System (CMS) was established in 1969 in Sialkot.
1970-75 Fourth Five-Year Plan	CMS was set up nationally. Under this system, motivators visited each eligible household four times a year, to advise, motivate and to provide FP goods and services.
1975-80 Fifth Five-Year Plan	An inundation system of contraceptive distribution was set up to complement the CMS. Large quantities of contraceptive pills and condoms were imported to be distributed at very low cost, or if necessary free of charge.

Relocation of Hindus and Muslims at the time of Partition, seems first to have drawn attention to demographic trends in

Pakistan. The conspicuous arrival of large numbers of new residents (although they probably did not outnumber the people who left) seems to have created concerns about over-population. Whatever the stimulus, efforts to counteract a population explosion commenced somewhat earlier in Pakistan than in most other developing nations.

As early as 1952, the Family Planning Association of Pakistan (FPAP) was founded by a group of wealthy educated women. The initial funding to assist the organization to get on its feet came from Oxfam, Pathfinder as well as from family planning organizations in Germany and Japan. Originally, they had two objectives:

a. To alleviate suffering caused by overpopulation,

b. To make the Pakistani Government aware of the population problem.

While FPAP has made some progress with its first objective, it claims eminent success with the second. Not only was the Pakistani Government made aware of the problem, but it was persuaded to do something about it. As mentioned earlier, government activity began in 1955 and gradually gained momentum. The first whole-hearted government support came, however, when Ayub Khan, President of Pakistan, threw his considerable weight and power behind the program in 1958.

At first, all government family planning (FP) activities fell under the jurisdiction of the Health Department, but later a separate government Family Planning Division was set up. After that, the program grew quickly and underwent changes as its primary focus changed with successive Five-Year Plans.

From the government's first FP activity which was to support the projects of FPAP and similar private organizations, through successive evolutionary stages, sometimes there was a tendency to depend upon one contraceptive method.

The Family Planning Program reached its zenith in the middle 1970s. Much foreign support, principally from USAID, and UNFPA, Germany and Sweden, bolstered the government's efforts until it had become one of the largest (per capita) and best-known family planning programs in the world. Its reputation for being a model program, however, was lost in the late 1970s, and currently it receives limited foreign assistance only from UNFPA.

The principal reasons for this loss in reputation, and the resultant decrease in support, emerge from disappointment with the lack of positive results. The Pakistan Fertility Study in 1975 found that only six percent of the currently married, non-pregnant fecund women were using a contraceptive method. Despite the fact that the campaign was to be a saturation program, more than 25 percent of women, ever married, were without knowledge of any contraceptive method. At the same time, despite all the government's efforts, no reduction in total fertility rates had come about.

Today, although there has been a huge reduction in foreign assistance and a corresponding reduction in activity, the Pakistan Government continues to have a large FP infrastructure. In each Pakistan Province, there is a Provincial Population Office, with the following staff:

a. Director of Administration

b. Director of Technical Services (lady physician)*

c. Director of Publicity

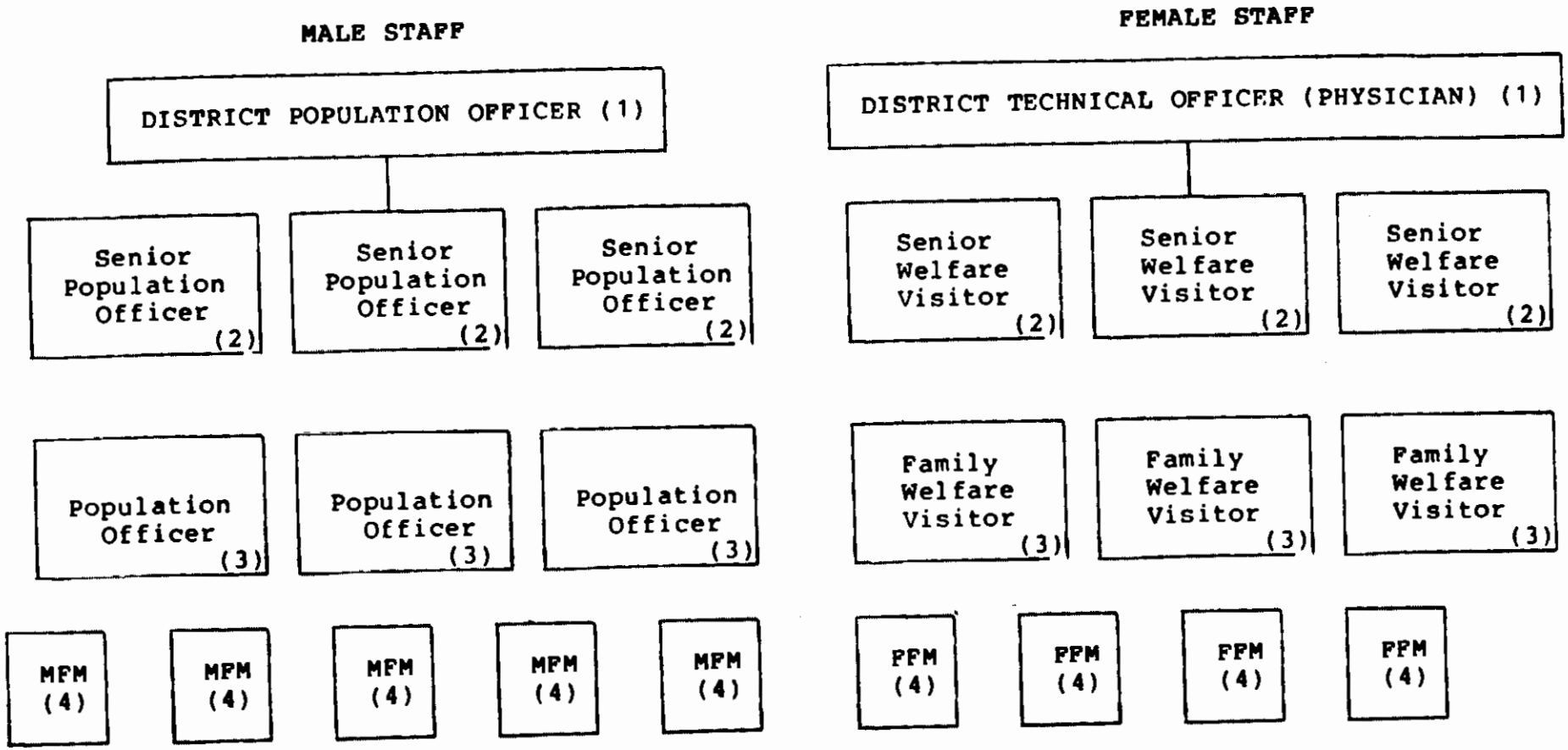
d. Statistician

e. Accountant

*Frequently this position is vacant.

In addition procedures for monitoring program progress and recording logistics are established. The next largest administrative area within a province is a district. The following administrative chart for Sahiwal (Montgomery) District in Lahore Province is typical. In Sahiwal, there are 270 (urban) Union Councils and (rural) Union Committees, each having one male and one female Field Motivator.

ADMINISTRATIVE CHART OF A TYPICAL FAMILY PLANNING STAFF AT DISTRICT LEVEL



(1) = There is one such officer per District.

(2) = There are three officers to each District Population Officer, and three to each District Technical Officer.

(3) = There are three officers to each Senior Population Officer, and three to each Senior Welfare Visitor.

(4) = There are fifteen Motivators to each Population Officer, and fifteen to each Family Welfare Visitor.

MFM = Male Field Motivator FFM = Female Field Motivator

Relevant U.S. AID Assistance

According to AID records in Washington, AID undertook the following projects in support of the Pakistan Government's family planning efforts.

a.	Family Planning Project	1967-75	$ 6,246,000
b.	FP Technical Support	1970-74	306,000
c.	Population Planning	1973-78	622,000
d.	Expanded Population Plan	1973-78	18,632,000
		Total Expenditure =	$25,806,000

This expenditure is approximately .5 percent of the total U.S. assistance to Pakistan. The largest of these projects, The Expanded Population Planning Project, costs $18,632,000, spent between 1973 and 1978. The major objective was to achieve a "decrease in the CBR from 4.5 per hundred in 1971 to 3.5 in 1978." An intermediate objective was to "get 25 percent of the young married fertile couples to use contraceptives."[17] The four major methods employed to maximize family planning practices were:

a. contraceptive inundation
b. providing clinical services
c. continuous motivation

According to U.S. Bureau of the Census,[18] the CBR in 1979 was 4.5 per 100, which gives an indication of the level of success of the project.

Impact of Assistance

The lack of population program success has been so well dealt with elsewhere,[19] that no further analysis is necessary here. However, the final measure of the program's effectiveness is reflected in the Total Fertility Rate, which was 5.6 in 1960 and 5.6 in 1978.

The following brief remarks from the World Bank[20] summarize the detailed evaluations.

> The Pakistan Fertility Survey[21] conducted at the end of 1975, indicated that only about six percent of the relevant women in the country were practicing contraception in a continuous manner

and that the effects on fertility of past efforts had been negligible. There is no evidence to indicate that the situation has since changed.

This does not of itself indicate that the concept behind the Continuous Motivation System was invalid since the CMS was never fully implemented. The scheme encountered numerous administrative constraints; the required personnel were not available at the village level; the people hired were not adequately trained; neither the planned supervisory organization nor the supportive network of communications, supply and logistics, and research and evaluation were ever implemented. The CMS scheme as originally conceived had considerable merit but was probably appropriate to a more advanced socioeconomic environment.

The organizational problems were due in part to a lack of cooperation between the health departments and the family planning boards at the provincial level, where the program was to be implemented, and to the failure at the provincial level to delegate decision-making responsibility to the district level. Until recently, policy and financing were provided by the Federal Government, with implementation the responsibility of the provincial governments. The district and local levels could do little except follow instructions, having no authority to adapt the program to local conditions.

A number of factors contributed to the personnel problems. CMS workers were not given civil service status and related benefits accorded all other government employees. The program was utilized as an opportunity for political appointments at the provincial level. Because persons with the desired qualifications (matriculates residing in the villages where they had to work) could not be found, it was necessary to utilize people from outside the villages or with less than the required schooling.

Training problems occurred in the initial stages of the CMS. The rapid expansion of the system required the training of a large number of people when the program did not have that capability. The agency in charge of training was inadequate; guidelines were lacking to identify training needs and content; there was little communication between the training staff and field operations; and the training periods were too short and the groups too large for effective

learning. In an effort to correct this situation, a population training center has been formed, independent of the earlier Training, Research and Evaluation Center (TREC). It will be some time, however, before the results of this addition can be observed.

Inadequate supervision was another hindrance to successful implementation of the CMS and can be traced to low morale among the supervisory personnel. This originated in their lack of civil service status, the absence of comprehensive job descriptions, a dearth of authority to exercise the supervisory role properly, inadequate training, and office space and transportation problems.

The program also suffered from inadequacies in both quantities of supplies and the logistics system to distribute the supplies which were available. Again the rapid expansion of the program with its emphasis on pills and condoms, coupled with poor planning and a shortage of the needed materials, contributed to the problem. In addition, the supplies available were not properly distributed according to needs; in some districts there was a surfeit while in other districts visits were made without any supplies. The problem of an adequate quantity of supplies was solved in 1975 with the inundation program, but logistics problems still remain.

Research and evaluation efforts were another weakness of the program. Program managers gave low priority to data not dealing with disbursement of contraceptives. Contributing to the problem was the dearth of personnel qualified to do research within the organization and the little use made of research resources in other institutions. Over the last two years, most of the research effort was devoted to the Pakistan Fertility Study, with very good results. More operational research, however, is still needed.

The remarks of observers who were on the scene during the implementation of the Family Planning Program provide additional subjective insights which are summarized as follows:

a. In the early days of the inundation program success was mistakenly attributed to the program because utilization of supplies was considered to have occurred when supplies were moved from central warehouses to lower levels.*

*See Appendix C.

b. Cultural differences intervened in unfortunate ways. For example, AID officials, in their enthusiasm and ambition, set impossible, high goals, and Pakistanis, out of politeness, found it difficult to point out that the goals had not been met.

c. Careful distribution of "the pill", as in the United States or Britain, where it is generally prescribed by a physician, might have resulted in its wider acceptance.

d. The program interruptions caused by changes in the priorities of the governments of the United States and of Pakistan have been extremely detrimental to the family planning movement.

Policies and Priorities

Pakistani Policies and Priorities

Although eminent government officials profess alarm at the population growth, and President Zia himself says that all development gains are negated by the population increases, few officials seem to truly appreciate the crushing dimensions of the problem, and fewer still are doing anything about it. It seems to be accorded low priority by almost everyone in senior government circles except Presidential Advisor Dr. Inayatullah.

Cabinet-rank officers do not seem to be as concerned with problems which are developing as they are with immediate problems.

Some components of the population problem are also disturbing. One is the issue of abortion. All knowledgeable family planning people seem to agree that abortion is the most practiced method of averting births in Pakistan, yet because abortion is not socially tolerated, the issue has not been given attention within the framework of past FP programs and there seems to be no chance of a change of attitudes in the foreseeable future. However, the extent to which hardship and suffering are experienced, because women may not have abortions done free or at low cost, is evidenced by the numbers of women

in hospitals to receive treatment for complications, or infections resulting from illegal abortions (which are almost invariably performed by unqualified persons).

During the wars with India, FP activities came almost to a halt. The hiatus which occurs during a war is detrimental, not only because of the immediate cessation of activities, but because the program is robbed of momentum, which takes considerable time to regain.

U.S. AID Policies and Priorities

AID has faced equivalent policy impact on its participation with Pakistan on family planning. Where abortion is concerned, AID has been unable to prevent or reduce suffering. The fact that women seem to have scant opportunity to contribute to abortion policy may be a factor. AID, therefore, in its FP policy, would seem to be in accord with Pakistan, where abortion is concerned; that is to say, the existence of high rates of abortion, the dire need for urgent public action, and the suffering which results from the lack of such action, are ignored because the subject is indelicate.

While Pakistan has slowed down or stopped FP activity when war breaks out, AID has also been responsible for some program interruptions. In recent history, because of U.S. policy decisions, assistance was suspended to Pakistan: (a) May, 1965, (b) from March, 1971, for seven months; (c) from April, 1978 through September, 1978, and (d) from April 1, 1979 to the present.

Future Programs

A new plan for FP activities in Pakistan was approved by the government on November 3, 1980. While its full name is Fifth Five-Year Plan Population Planning Plan 1980-83, it is

becoming known as "Pakistan's Population Welfare Plan for 1980-83".*

The stated overall objective of the program is "to bring about a social change in attitudes and behavior leading to adoption of small family norm" (sic). Presumably this will be adjudged to have occurred when the population growth rate is reduced from "2.9 percent to 2.7 percent". Intermediate objectives deal with improving FP education, improving motivation, and increasing the number of contraceptive users.

It will be (to quote the Summary) not a "single-purpose birth control program..." but a "multisectoral approach integrating (selected) other basic requirements of masses, i.e., nutrition, health care, education, agricultural extension, vocational training and employment, housing, social security, water supply and sanitation, etc." At national, provincial and district levels, the administrative infrastructure has membership drawn from many different government departments.[22] It has three priority areas, which, according to Presidential Advisor Inayatullah, are " a) Population, b) Agriculture, and c) Women, and these three add up to human development."

The scope of the plan is vast and sets out not only to reduce the population growth rate, but also to reduce the motivation for a family to have many children. For example, it promotes good nutrition, health education, sanitation, and immunization, all intended to reduce infantile mortality and thereby reduce the need for parents to have more children than they actually want in order to allow for deaths before maturity. As the World Bank notes:[23]

> One of the most important changes in the new plan was the integration of family planning with other activities in the country. Thus, family planning services would be integrated with health services, population education would be combined with other

*A summary which was prepared by the GOP is attached here as Appendix B.

> activities of the Ministry of Education, and family planning components would be included in the development programs of other ministries. Integration with health would be in two directions: 1) family planning services would be provided in all health facilities in the country, and 2) the family welfare clinics would provide maternal and child health services. A three-tier committee system (federal, provincial, district) would insure that there was no duplication in services, as had sometimes happened in the past. This integration would therefore increase the country's number of facilities for both health and family planning. With respect to population education, collaboration with the Ministry of Education has already resulted in family planning training of primary school teachers and the introduction of population education elements into the primary school curriculum. Present plans call for these two reforms to be implemented also at the secondary level and, later, at the college level. The Population Planning Division is working with the Ministries of Social Welfare, Local Government and Rural Development, Production, and Agriculture to study the feasibility of including population planning components in the projects of those ministries. Similar efforts are underway to investigate the utilization of semi-autonomous agencies, such as Pakistan International Airlines, for the provision of family planning through their health services programs. In the past, lack of integration has been one of the main reasons for the limited success of the program; the present steps in that direction should, therefore, prove helpful in increasing acceptance and practice of family planning.

In forecasting the Plan's prospects for success, the World Bank remarks:[24]

> Whether future programs will have more success will depend on the existence of a market for family planning, adequacy of resources for the program, the capability to reach the available market, and sustained Government support for the program. There is a sizeable ready market which, if effectively supplied, could produce a decline in the birth rate from the present 44.5 to about 37 births per thousand population by 1983. This

> market is likely to expand in the future as socio-economic conditions improve but unless services are readily available, the potential fertility decline will not materialize. To reach the birth rate of 37 will require a great effort. The setting of unrealistic targets may, as in the past, create skepticism and possibly affect financing for the program. Pakistan is presently facing severe resource constraints. This inevitably will influence the allocation of funds for population planning. More important, however, are the doubts both within the Government and among foreign donors about the advisability of devoting resources to a program which has shown little result in the past.[25]

The Bank's points are well taken and deserve attention. However, the report was issued almost three years ago. The authors of the report would probably reach the same conclusions today, only laying greater emphasis on "sustained government support, as well as sustained and full support from all involved departments of the government."

At present, the weakest link in an otherwise well-designed comprehensive plan is the reliance placed on support from many governmental departments. Material evidence that such support exists (in November, 1980) is lacking. Essential to any multi-sectoral endeavor is multi-sectoral support. If this support can be gained and sustained, the Population Welfare Plan would hold more promise than any previous (related) project.

Outstanding Issues

It is yet to be established that Pakistan's new FP Plan will be implemented on the scale its authors envision. There can be no dispute about its value or its desirability, but the outstanding question is, can it be put into practice?

The budget calls for $94 million. Apparently the Pakistani Government has indicated that it will commit $30 million. The UNFPA is providing $4.2 million.[26] This leaves a $60

million gap. The review team received the impression that UNFPA will release a further $30 million only if the remaining $30 million is forthcoming from other sources. Thus, from the point of view of finance alone, the Plan still lacks adequate support, and no firm offers of assistance are in sight. (See Appendix H.)

Dr. Inayatullah expressed the hope that different agencies would support discrete projects or activities within the Plan. This is one possibility. A further possibility is for a consortium of all potential FP donor agencies, in support of family planning activities, to be formed. The consortium can seek agreement in advance on policy and in consultation with Pakistan, and then can provide one lump sum to the Pakistan Government for the Plan. This may obviate some bureaucratic confusion and reduce the multiplicity of restrictions and rules imposed by individual donors. Assuming financial support was made available, could the Plan be implemented? Unfortunately, at present there is no evidence of multi-sectoral support. If it were possible to obtain full (and there may be no compromise on this) support from all the many GOP agencies, and if the funding were available, then the implementation of the Plan could conceivably contribute more to Pakistan's development than any other single government activity.

If further foreign assistance to FP programs is to be given to Pakistan, the donor agencies would probably be well advised to heed the caveats of two Pakistani officials who have been intimately involved with past programs.[27] In paraphrase, they contend that future assistance programs should:

1. Be sensitive to our sociology, our mores, our beliefs. (This was not always the case in the past and resulted in unsuitable programs).

2. Start with small pilot projects which are then evaluated before we go all out on programs (which seem to be successful elsewhere).

3. Not be forced on us.

4. Not operate in isolation from other development projects (housing, schools, medicine, food, cultivation, etc.)

5. Build (or rather help build) an infrastructure of health and population and social welfare institutions.

6. Help build up our Demographic Center (which is currently planned).

7. Be oriented to policy (present and future).

8. Have regular evaluations conducted by officials who do not have a stake in the success of the program. Evaluations should be conducted by outside agencies such as the Pakistan Institute of Development Economics, not the implementing departments.

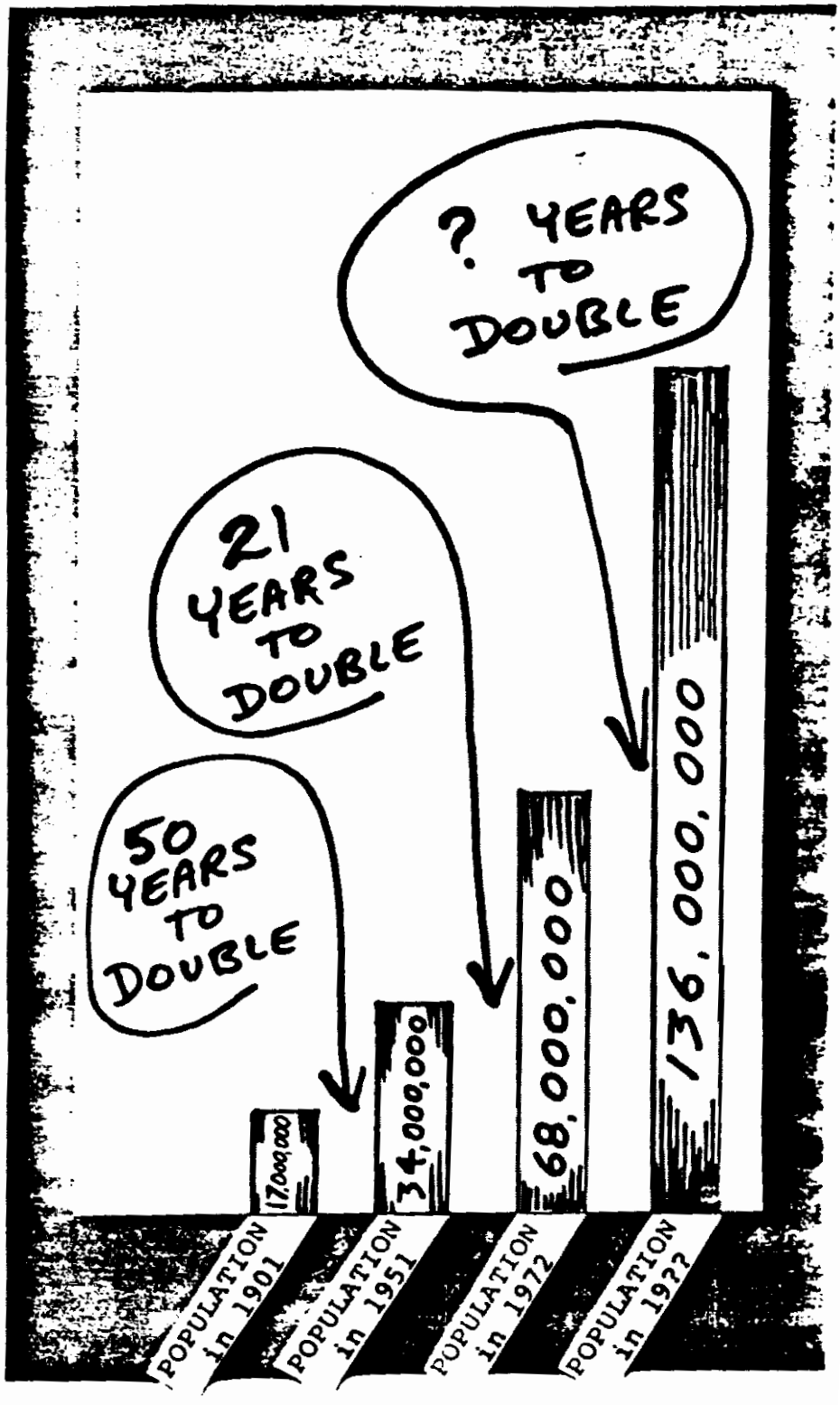
In the opening passages of this section on population, attention was drawn to the lack of well-substantiated data. No one seems to know how many people live in Pakistan, and no one seems to know exactly what the crude birth and death rates are. Consequently, it is not known what the precise growth rate is today, and there is reason to believe it has never been known in the past. Yet, many millions of dollars have been invested in attempting to provide solutions to a problem whose precise dimensions are uncertain.

If the problem is indeed as critical as widely feared, then concurrent with, or perhaps even before, planning additional assistance, donor agencies should help Pakistan build an effective census infrastructure. This should not be construed to mean that donors should educate selected Pakistanis to the levels of Ph.D. in demographics. That mistake has already been made; highly trained Pakistani demographers are now employed outside Pakistan because there are no available, attractive positions at home. Before its launching, careful research into such a project needs to be done and care needs to be taken that relevant education or training be in Pakistan

Equipping a trainee with general demographic or statistical skills enables him to earn a high salary overseas, which may benefit Pakistan in terms of foreign exchange,* but does nothing to solve the specific demographic data problem discussed here.

The Pakistan population growth problem is serious and urgent, and yet, past efforts to come to grips with it have met with little success. Auditors, evaluators, overseers, and critics of donor agencies demand that their efforts show results. Without results, there is always the threat of donor assistance being cut off. In this, there lies a dilemma for the donor agencies; they believe the dimensions of the problem to be vast, feel ethically bound to provide all possible relevant assistance, and yet hesitate to bind themselves to a program which offers no assurance of significant progress, much less success.

*In this connection, please see Appendix D showing advertisements placed in the tabloid press (by an agency of the Pakistan Government) for job vacancies outside Pakistan; see also earlier remarks in this Review devoted to "Remittances" and to Appendix E showing a photostat of a recent press release on the same subject.


? YEARS TO DOUBLE
21 YEARS TO DOUBLE
50 YEARS TO DOUBLE
17,000,000
34,000,000
68,000,000
136,000,000
POPULATION in 1901
POPULATION in 1951
POPULATION in 1972
POPULATION in 1972

Health Problems

Background

Pakistan's health conditions, which have never been ideal, have suffered setbacks in the last twenty-three years. With Partition, a large number of Hindu medical personnel fled to India. At the same time, the resultant problems were exacerbated by the influx of Muslim refugees from India, bringing with them major health problems and the threat of new diseases.[28]

Since 1947, the population growth rate has put heavy demands on an already inadequate supply of services and at the same time, the population increase has meant that there is a greater total quantity of disposable waste. Inadequate means of disposal has meant pollution which has caused more illness.

As several scholars have pointed out,[29] the population is becoming increasingly urban, and while in rural areas there is a total absence of waste water collection systems, less than seven percent of urban dwellers have access to such systems.[30] The majority of sewage is emptied into rivers or canals, or into the soil, where ecosystems are disturbed or destroyed. In small villages, liquid waste usually flows into open pits, which are common sources of health hazards.[31]

Several diseases, including parasitic complaints, smallpox and malaria, and child-bearing complications and tuberculosis, have caused major problems. The twelve leading causes of death are displayed on the table which follows.

ESTIMATED DEATHS BY THE TWELVE LEADING DISEASES (1971)			
Name of Disease	Rural	Urban	Pakistan (Total)
Infective and parasitic disease	63.07	67.65	63.83
Malaria	10.96	7.86	10.44
Congenital anomalies, birth injury, difficult labor and causes of prenatal mortality	7.71	5.64	7.36
Tuberculosis of all forms	6.09	2.86	5.55
Unknown causes	2.44	4.91	2.85
Bacillary dysentery and amoebiasis	2.44	2.86	2.51
Peptic ulcer, appendicitis, intestinal obstruction and hernia	1.22	1.09	1.20
Accidents, poisoning and violence	3.03	1.05	1.88
Disease of heart and circulatory system	1.35	3.92	1.79
Diabetes mellitus	1.22	.75	1.14
Complications of pregnancy and child birth	1.08	1.39	1.13
Tumors	.41	.00	.34
All causes	100.00	100.00	100.00

Source: Rahman, Op.cit., p. 285.

Prior to 1947, the British health service existed principally to provide care for the armed forces and the civil service. The other local residents normally had litle or no contact with this service, except when the British organized mass immunization campaigns against epidemic diseases. Eventually the British set up local self-governing clinics to provide services. However, these were plagued with problems ranging from shortage of staff to "inability to store and account for supplies".[32]

Partially because of a literacy rate of 13 percent, and partially because of limited access to modern medical services, many Pakistanis make use of folk medicine or religious healers,[33] homeopathists, ayurvedic medicine, or tibbi medicine. The tibbi (or unani) system of medicine has been practiced since the early Greek period, with modification; since then by various Muslim influences.[34] Ayurvedic practitioners were largely Hindu, and they relocated in 1947 as already noted.

The eldest family member traditionally prescribes cures before anyone else is contacted. A long standing folk treatment for pneumonia is to rub the blood of a rabbit or pigeon on the patient's chest. Sniffing Neem leaves is folk medicine for smallpox, and shaving the head is believed to reduce fever. Lack of success with such treatments may cause the patient to seek the assistance of a religious healer. The latter is likely to inscribe a verse from the Koran with soluble ink on paper. The ink is then washed from the paper and the patient drinks the resultant watery solution, with predictable results.

Relevant Government of Pakistan Activity

The Government responded to the growing need for medical care by enlarging the public health care system and by training more personnel. However, as attempts to modernize services

were made, the available financial resources increasingly were absorbed by the public hospitals which normally serve only the larger urban areas. Therefore, services remain painfully inadequate in the rural areas and small urban communities in spite of all improvement efforts.[35]

Of critical urgency is the need to provide care for women, especially those who are rural. Social custom prohibits male physicians from caring for female patients. The extremely small number of female physicians live in large urban centers, almost without exception. This means that rural women are the least well-served by the public health system, while paradoxically, their need, especially during the child-bearing years, is probably greater than that of any other population group.

Few of the planned improvements in health care services scheduled for the First Five-Year Plan (1955-1960) were fully realized. Lack of qualified personnel and delay in the release of funds are commonly cited as the principal reasons for the shortfall. Concern over public health problems in 1960 brought into existence a medical reform commission which was to make suitable recommendations for the future.

The Second Five-Year Plan fared little better than the First. Although the planning was realistic, the needed resources were not made available.[36] Some progress was made, however, in that new organizations and facilities were set up and vaccines and sera were produced locally for the first time. Recognition that public sector health services were inadequate prompted the government to lend assistance to private health care agencies. Attention was directed to the need in rural areas, and an effort was made to provide local clinics.

The concept of Primary Health Centers (PHS) or Rural Health Centers was formulated in 1949. Such centers resemble small hospitals. Each has two "wings", one for male patients and one for female patients. One set of staff for each wing

is provided for in the plans. Each wing has a small ward, usually 6-8 beds, for in-patients. Each center has a small dispensary and a simple operating theater. The PHS is physically located in the center of a cluster of buildings which are all associated with the Center. Free housing is provided for male and female physicians, and for staff members in order to encourage the staff to work in rural areas.

In spite of its merit, the concept seldom seems to function as planned. The incentives have proven to be inadequate to keep key posts filled and most Centers still have no women physicians. Salary is not a small consideration. Staff who work in urban areas are now paid inflation allowances, which is not the case in rural areas. A private physician's income is typically ten times that of a rural government physician's.[37] Since earning a maximum salary is frequently a reason given for entering the medical profession,[38] it is hardly surprising that physicians are attracted least to rural health positions. It is estimated that each year about half of all Pakistan-trained medical graduates leave Pakistan for Britain, the United States, the Middle East, and some European countries. The overseas lure of high salaries, modern medical facilities, and good living conditions triumph over Pakistan's need for more and better trained practitioners.

Foreign assistance has been most valuable to Pakistan in improving health conditions. It will be recalled that some of the last cases of smallpox were detected in Pakistan before the premature claim was made that smallpox had been eradicated. The smallpox campaign was fought largely with international assistance.

The Impact of AID Assistance

In general, the impact of AID assistance on health projects has been very positive. The criticism has been made that many of the graduates of training programs have subsequently

Relevant USAID Assistance

According to AID/Washington's records, the following health schemes were implemented:

PROJECT NAME	YEARS DURATION	DATES	TOTAL EXPENDITURE
Mass Disease Control	10	1952-62	$1,097,000
Rural Health Development	14	1953-67	2,031,000
Nursing Education and Facilities	15	1955-70	673,000
Post Graduate Medical Center	13	1956-69	1,996,000
Basic Nursing Education	3	1956-59	61,000
Undergraduate Medical Training	5	1956-61	76,000
Wir Sewage Disposal	12	1958-70	3,699,000
Malaria Eradication	10	1963-73	1,288,000 grant plus (2,544,000 loan)
General Advisory Service Public Health Engineering	4	1963-67	2,427,000
Malaria Eradication II	5	1965-70	21,080,000 grant plus (9,872,000 loan)
Public Health Technical Support	5	1968-73	206,000
F.P. Technical Support	4	1970-74	306,000
Malaria Control III	6	1975-81	21,720,000 grant plus (55,335,000 loans)
Basic Health Services	3	1977-80	1,344,000

left Pakistan, but no reliable statistics seem to have been collected. Two areas of assistance deserve particular attention. These are the various malaria projects, and the Basic Health Services Project, which is on-going.

The first AID Malaria Project set out to achieve the objective of "eradicating Malaria from Pakistan by 1975." Although subsequent objectives were more modest, few of them have been achieved to date. Records in AID/Pakistan indicate the following achievements to date:

1. A 53 percent reduction in the Slide Positivity Rate (SPR-malaria cases chemically diagnosed by laboratory examination of blood smears) in the areas of the Punjab where spraying with the insectide malathion has been conducted. The Punjab is the province with the highest incidence of malaria in Pakistan;*

2. A 38 percent reduction nationwide of P. Falciparium infections (the most deadly type of malaria present in Pakistan);

3. Protective clothing has been obtained for the use of all field workers who come in contact with insecticides;

4. Training of malaria workers in insecticide safe use practices has been carried out by the Government of Pakistan with CDC/Atlanta assistance;

5. A monitoring system is being put into place to assure safe practices in field operations in 1977 and future years; and

6. The motor fleet of the Malaria Control Program has been thoroughly reequipped with 110 jeeps, 100 pick-ups and 10 land rovers.

In 1969, a resurgence of the disease occurred, especially in Punjab and Sind Provinces. This was caused by (a) gross

*In addition, a subjective remark was made in the report by the January, 1977 external review team that, in the Punjab "...one can say with certainty that the number of Pakistani lives which were saved solely by malathion must run into the tens-of-thousands."

underestimation of the prevalence of urban malaria and the total lack of spraying or other control attempts in the cities and large towns, (b) resistance to DDT, (c) lack of maintenance of low levels of malaria resistance and (d) program reductions. The situation deteriorated in 1973, when an estimated ten million people in Pakistan were infected and the positivity rate rose to 26.3 percent.

"Even more alarming," a report reads, "was the percentage increase in the rate of plasmodium falciparum with its 18 percent fatality rate if not treated". No statistics are available, but estimated deaths from malaria in Pakistan are said to be in the thousands per year. In 1973, flooding and the resultant abundance of stagnant pools brought about a major epidemic of malaria in Sind and Punjab, which elicited new AID loans totaling $55 million.

The current malaria project has dropped the word "eradication" from its title and has as its objective, "reducing the incidence of malaria in Pakistan to less than 500 cases per 1,000,000 population within five years starting in 1976". The principal method used is selective spraying with insecticide. The project should have commenced in 1976 but shortage of sprayers and insecticides delayed spraying until June, 1976. Reports indicate that "Toxicity problems with malathion curtailed the program." More specifically, in 1976, six workers died and many others became ill from contact with malathion from Italy, which was later found to be ten times as toxic as its American equivalent. The same was true for the Italian iso-malathion, which is thirty times more toxic than malathion. The Italian chemicals were withdrawn from use and safety measures introduced. Subsequent illnesses have occurred but none appear to have been serious.

The program continues to be beset with problems. Shipping delays have prevented sprays and sprayers from reaching

sites at critical periods. Further, political disturbances and lack of fully trained professionals still hinder the program.[39]

The Pakistani Government now has a relevant infrastructure headed by the Federal Directorate of Malaria (sic) in Islamabad. Each province either has, or has plans to get, a Malaria Control Officer. However, some senior government officials are of the opinion that malaria control programs would have been more successful had they been an integral part of the public health system from the beginning. Instead, it was a separate entity until 1977 when it was placed under the Health Department. When the program was independent, waste resulted from the two separate agencies conducting their affairs without coordination. The malaria program also apparently suffered from the submission of false reports of success by officials who wanted to show good performance.

Since malaria is an enigmatic disease, AID has supported active research in Pakistan. Recently, careful record-keeping indicates that malaria is concentrated in well-defined areas. The current question is whether or not the residents in these areas themselves are more susceptible to malaria, or are susceptible because their location is contaminated. Formerly, it would have been assumed they lived in a "malaria zone". Research also suggests that families who have malaria are susceptible to other diseases, but the sequence of illness-events is unclear. Many malaria-infested individuals who have no outward symptoms have been discovered in Pakistan.

The Basic Health Services Project directly addresses a critical need, especially in the rural areas. As was mentioned earlier, a large percentage of the rural population does not have access to health care services. The rural areas, especially the more remote ones, have not attracted medical practioners. As also was mentioned earlier, the shortage of women physicians

is great. The Basic Health Services Project sets out to improve this situation.

In this project, Basic Health Units are established in rural areas where services are most lacking. These Units are really subordinate PHSCs. However, instead of there being male and female staff physicians, there is a Lady Health Visitor (LHV) and a Medical Technician (MT), who is the male counterpart of the LHV.

As the newly trained LHVs and MTs assume their positions, however, the lack of definition of their roles emerges as a weakness in the project. It would seem obvious that in order for the public to derive maximum value from the project, the LHVs and the MTs could see and treat the most minor illnesses, and refer to the nearest physician the cases which are beyond their capabilities. The greatest resistance to this arrangement, however, comes from the physicians, most of whom cannot possibly see all the patients who want treatment. They feel that a physician should diagnose and treat any illness, no matter how minor. Nonetheless, the presence of the LHV means that for the first time in many places, women patients may be examined, advised and perhaps even treated at a local clinic.

The Basic Health Services Project called for the opening of 19 training schools for the preparation of MTs and LHVs. One school was to be allocated to each District, although the Punjab, with 21 Districts, would then be short two facilities. The Project was to be conducted in three stages. In each of the three phases, six or seven schools would be opened, each with an enrollment of 26 students, half men, half women.

The objective of the training was to improve the skills of presently-employed paramedics to a level at which they could diagnose and prescribe for the most rudimentary illnesses. The first major problem was that not enough women enrolled in the training sessions. An enrollment prerequisite was that all students should have completed 10th grade and have had

elementary science courses. Since most women had not studied science, a waiver was requested. The Government has still not granted the waiver, and this remains a major barrier to the enrollment of women trainees.

The decision to enroll only employees who had three years of experience was an afterthought. Although it seemed practical in the planning stages, it caused problems when implemented. Trainees vacated positions from which they already were providing services (such as Female Dispensers, Sanitation Supervisors, Rural Health Inspectors, Male Dressers, etc.). Thus, the public whom the project was intended to help, were the first to be inconvenienced. In many cases, replacements for the trainees had to be hired, and it is not yet resolved how their salaries will be funded.

For each of the Schools a physician was carefully selected to be the Supervisor of Training. Here again, problems arose, since although knowledgeable physicians were available, all were not well prepared as trainers.[40]

All textbooks for the trainees were subsidized and extra financial assistance was provided by UNICEF. That organization also provided Rs 200/ incentive allowance per student per month in addition to the AID allowance of Rs 100/.[41] Each trainee was obliged to sign a bond before being accepted for training, making a commitment to serve the District for three years after graduation.

With the first year of the three-year school project completed, the first graduates are being placed in the newly constructed Basic Health Units. One-hundred-sixteen trainees completed courses of study. Only 36 of these were women.

Five new schools are due to start soon, although many of last year's problems remain unresolved. For example, the science waiver for women is still pending. This year some trainees will be new recruits into the health service, without the

three years of experience previously required. Such recruits will train for eighteen months while trainees with prior experience will train for one year.

Using the University of Hawaii as a contractor, USAID supplied curriculum advisors as well as management and health education consultants. AID paid for half the cost of all textbooks, and for most of the other program costs, including those for conducting a baseline survey at village level.

Personal visits of Review Team Members to Basic Health Units (in Sialkot District) provided encouraging evidence of the practical value of the project. The buildings were simple, well-planned and adequate. There were wells with overhead water tanks to be fed by electric pumps, which had not yet been electrically connected. Modest housing accomodations are provided for staff. Lady Health Visitors were caring for and advising women, or giving dry rations (EEC weaning food) to mothers of infants and advising them on its proper use.

The administering of the village baseline survey by the joint US/Pakistan Team was also observed. The survey instruments seem well-conceived and the results collected should provide valuable information.

Policies and Priorities

Policies and Priorities of Pakistan

While it is apparent that health care services in Pakistan are increasingly effective, allocating increased funds for these services has not been accorded high priority. As Siddiqi suggests,[42] policy makers had not yet "been convinced that a healthy nation is one of the most valuable capital assets a country can have".

Immediately after independence, Pakistan had only one medical college, 1,014 physicians, and 1,500 hospital beds.

International assistance and Pakistan's own efforts have upgraded this situation to the point that in each year beginning with 1981, Pakistan expects to graduate 4,000 physicians.[43] Thirty years after independence, Pakistan had 479 hospitals plus 2,377 dispensaries, making a total of 31,850 hospital beds; 15,930 physicians; and 5,396 nurses. Certainly these were large increases, but still resources were inadequate to provide even primary health care services to the population.[44]

However, it is planned that, by 1991, health care centers will provide services to all the people. The plan envisions one Basic Health Unit for every 1,000 persons, and one PHC for every 50,000. At the next highest level, there is planned a 60 bed tehsil (county) hospital. At the next level there will be a 200 bed district hospital to serve the public.[45]

Within the health budget, priorities may be identified by the amount of expenditure. During 1970-75 the following approximate expenditures occured:*

33%	Malaria
22%	Medical Education
21%	Hospitals
14%	Rural Health Programs
10%	Tuberculosis, communicable diseases, medical research and equipment
100%	

While Siddiqi[47] builds a case for the maldistribution of primary health care resources, the map he has prepared, showing the range of best-served to worst-served regions, tends to reflect the population density as illustrated in the small map prepared by the Bureau of the Census.

*(Percentages given are for the health budget)[46]

Policies and Priorities of USAID

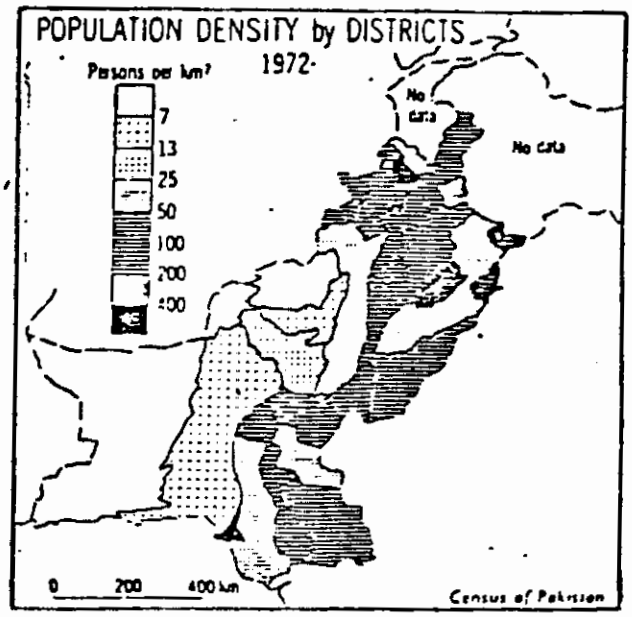
In the health programs discussed here, the overriding aims of AID matched those of the Pakistan Department of Health. However, at times it seems AID supported the creation of new agencies (e.g., Family Planning, Malaria Control) which were outside of the Department of Health. Some health officials are critical of that approach, and would have preferred that the new units be incorporated within their department from the beginning.

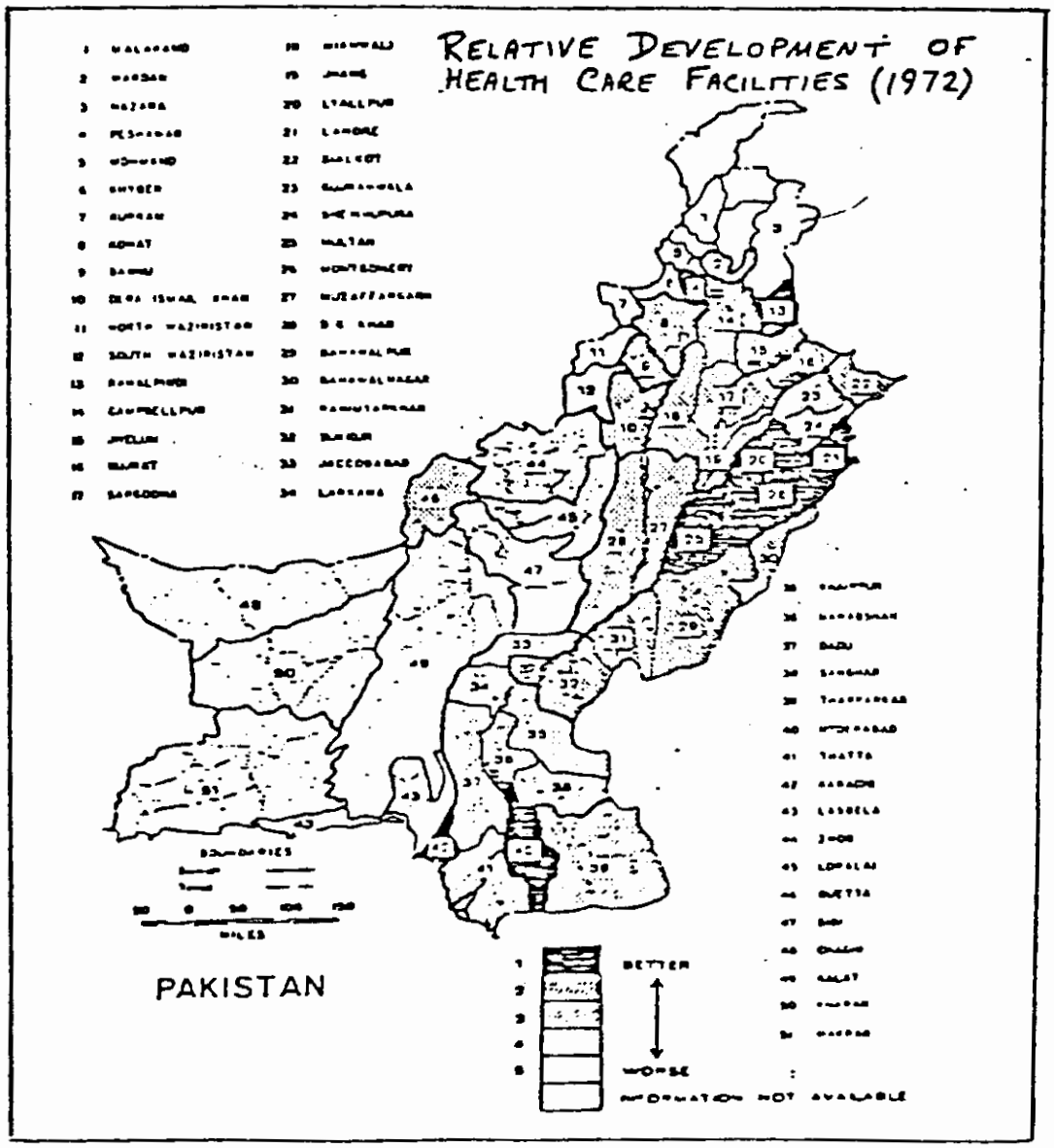
The priorities of the rest of the Government of Pakistan appear at variance with those of its Health Department. Typically, adequate funds are not devoted to health promotion activities. It is estimated that less than one percent of the national income is devoted to supporting public health activities.[48] If the percentage of all AID dollars spent in Pakistan indicates AID's priorities, then a curious parallel exists. The AID funds allocated to all health programs, including population and nutrition, amount to approximately two percent of the value of all AID assistance. This seems to be a remarkably small proportion given the immensity of the problems, according to AID documents. This also is curious in light of AID's policy statements concerning giving high priority to improving quality of life conditions.

Future Programs

Malaria control programs have been successful in part. It is obvious that these gains will be lost if there is a premature reduction of program activity. Further, AID's Malaria Research already has produced significant findings and holds much promise for the future. The research has almost world-wide beneficial implications.

The map on the right shows the estimated density of population by District in 1972 (Source: Basil L. E. Johnson, Pakistan, Heinmann, London, 1979). The map beneath shows the relative development of health care facilities in Pakistan in the same year (Source: Akhtar H. Siddiqi "Health Care Resources and Public Policy in Pakistan " Social Science and Medicine 14, (1980) p. 175.





Outstanding Issues

Despite the weaknesses of the Basic Health Project, its focus on providing essential services where they are most conspiciously absent is exactly on target. The final evaluation called for in the project plan is designed to determine future directions and is yet to be conducted. This evaluation needs to be done in a thoughtful and careful manner and with full appreciation of the Project's significance.

Nutrition Programs

Background

Although there does not seem to be good documentation for its widespread existence on a national level, malnutrition is recognized as present and as the source of many problems, if indeed, any health problems can be viewed as existing in isolation. Yet, even within the field of nutrition, it is still possible to encounter the pin-pointing of deficiencies.

The worst nutritional deficiency in Pakistan, Nyrop tells us, is Vitamin A, which, he adds, "leads to blindness". Some years ago, the solution to this problem might have been to import and distribute Vitamin A capsules. Now we know that even if Vitamin A is supplied and ingested, it will not preserve vision. The retinol--the essential component which the retina lacks--must be physically and chemically broken down, aided by the presence of teeth and appropriate enzymes. It then must be transported to the liver, stored, released, and again transported to the eye. For all of this to occur, a spectrum of other vitamins and elements must be present and accessible. Thus, compensating for one nutritional deficiency is of little utility and, indeed, may be wasteful.

A comprehensive program is needed, one in which every aspect of good nutrition not only is promoted but is made a

reality. There is documentation for a range of deficiencies in Pakistan, chief among which are protein, calories, vitamins A, B, E, and iron.

The total social, economic and geographic environment must be examined to begin to understand nutrition and malnutrition in Pakistan. The problem begins at the traditional family table, where the senior man in the family, usually the oldest with the smallest nutritional needs, is given first choice of available food at each meal. After the male hierarchy is satisfied, women and small children are given access to what is left over. As a consequence, women of childbearing age and small children, who often have the greatest and most significant nutritional needs, almost invariably get the lowest quality food and the smallest quantities.

Economically, food prices have increased more than other commodities in the past ten inflationary years. And although agrarian economists state that the country produces enough food to meet its needs, rising prices are making it increasingly difficult for the poor to purchase an adequate diet. This condition is exacerbated through crop discrimination by geographic area, so that the price of some commodities is increased even more by transportation costs.

A partial list of illnesses which are all too prevalent in Pakistan should include: tuberculosis, cholera, typhoid, para-typhoid, bacillary and amoebic dysentery, trachoma, malaria, bubonic (and other types) plague, typhus, roundworm, hookworm, whipworm, pinworm, rabies, tetanus, venereal diseases, dengue, sandfly fever, brucellosis, and complications at the time of childbirth. These all interact with malnutrition. The issue of the causal relationships among them is of little interest to the patient and is becoming of less interest to medical scholars. In parts of the world where this is possible, attention is being focused increasingly on reducing or eradicating <u>both</u> the illness <u>and</u> the malnutrition on as

widespread a basis as possible. There is little evidence that such is the case in Pakistan.

Relevant Government of Pakistan Activity

Judging from available records and constrained by time limitations as in-depth research, it appears that the government's activities have been limited largely to working with international agencies which are attempting to solve some of Pakistan's nutritional problems. For the most part, these international agencies appear less than satisfied with the Government of Pakistan's participation and support.

Relevant USAID Assistance

Remarks in this section have been grouped under three general headings: (a) Feeding Programs; (b) the Nutrition Planning and Research Project; and, (c) Other Nutrition Projects.

(a) Feeding Programs

UNICEF, WFP, CARE, CWS, and CRS* have all conducted food assistance programs using PL 480 Title II commodities. The UNICEF Program commenced in 1949 with $2 million worth of food a year. That program was closed in 1973 by UNICEF, which claimed that the government failed to cooperate in the management and monitoring of food distribution. CRS

*UNICEF, United Nations International Childrens' Emergency Fund; WFP, World Food Program; CARE, Cooperative for American Relief to Everywhere; CWS, Church World Service; and, CRS, Catholic Relief Service.

and CWS operated programs in the 1950s, but also terminated, citing lack of cooperation.

CARE commenced its program in the early 1950s and eventually narrowed its focus to providing food to pregnant and lactating mothers and to pre-school children in the provinces of Sind and Baluchistan. The CARE Program lacked government support and ground to a halt in 1977, when a dispute between the government and a contractor resulted in the contractor refusing to release food commodities. The WFP ended its PL 480 activities within a year thereafter, and presently functions on a very limited basis, using ghee, dried milk and wheat supplied by European Economic Community (EEC). (See Appendix G).

(b) Nutrition Planning and Research Project

This project was implemented between 1974 and 1977, and had an expenditure of $276,000. Its objectives were to:

i) Conduct a National Nutrition Survey.
ii) Establish a National Nutrition Policy.
iii) Establish a Nutrition Unit at the National Planning Commission level.

Unfortunately, the AID records for this project could not be located. It is understood that after the U.S. Embassy in Islamabad was burned in November, 1979, USAID records were placed in crates and shipped to Washington. They remained in storage there until the decision was made not to close the AID Mission. At that time, the records were said to have been shipped back to Pakistan. The records of this project seem to have become lost somehow during shipment. The Nutrition Section of AID had long since closed and the staff departed.

Shortage of time precluded exhaustive research. However, superficial examination failed to reveal the existence either of a Nutrition Unit in the Planning Commission or of a National Nutrition Policy.

(c) Other Nutrition Projects

The Fortification of Flour Project, the Fortification of Tea Project, the Village Level Food Processing Project, the Commodity Nutrition Education

Project, and various other nutrition and nutrition-related projects apparently were planned, scheduled and postponed repeatedly, and eventually were dropped.

The Impact of AID Assistance

The impact of AID's assistance in improving the nutritional status of the poor is not apparent. When children and child-bearing women are provided with needed nutritional supplements, as was the case in the PL 480 Programs, it can be assumed that their condition was improved. Evidence of such improvement can be expected to be either difficult or impossible to discover after a lapse in time. Therefore, while very frequently no impact is obvious in a nutritional program, it does not necessarily follow that there was no impact. Perhaps comparative blood tests or comparison of disease records between children who received the food regularly and those who were not in any feeding program would reveal a significant difference. However, such evaluations are hardly likely to occur.

Policies and Priorities of Pakistan and USAID

Lack of a visible continuing program reflected in earlier discussions of abortive activity surrounding the "Other Nutrition Projects" seems to result from the fact that AID's priorities were not identical to those of the Pakistan Government. Both parties apparently recognized the need for improving the nutritional status of the poor. However, while AID was poised to begin the "Other Projects", the Pakistani Government appears to have been so consumed with other problems that it never did reach the readiness stage.

It is possible that new policies and new priorities which the Government of Pakistan is adopting resemble AID concerns in this context. Very recent press reports indicate that this is indeed happening (See Appendix F). Further, the goals of the new Population Welfare Plan also may indicate a change in priorities.

Future Programs

There was some discussion in 1978 of a possible new CARE Program in Pakistan. CARE planned to obtain funds from the GOP sufficient to hire all the personnel to supervise the closely controlled distribution of the commodities from port-of-entry to the beneficiaries, and to move and store commodities. Over a period of time, it was planned that the government would assume CARE's roles.

This appears to be a reasonable plan. However, its implementation hinges on the GOP's readiness to shoulder the financial responsibilities initially, and the supervisory responsibilities eventually. From observations of the condition of mothers and small children in the village, the program is much needed. Remarks in AID's Annual Budget Submissions* support these observations.

It is not immediately apparent through what channels the CARE food would travel. There are two possibilities: the Department of Education with schools as the final distribution point; or the Department of Health with Primary Health Units as the places for final distribution. Whatever the channels of distribution, final distribution should be directly to the beneficiary to be consumed on location under supervision.

Although pre-school children could most readily be reached via Health Care Centers, distribution through schools has certain advantages. If an attractive hot meal were furnished, such as those provided under certain CARE Programs in the various states of India, usually comprised of fortified bulgar wheat, CSM, or Blend K, and local spices and chillies, then this could conceivably swell school enrollment. One is reminded of the CARE Program in Cannanore District in South India,

*FY '77, p. 53.

which has been credited with causing some Muslim families to send daughters to school for the first time. It should be noted, however, there was a mass exodus of children after lunch. Therefore, the Superintendent eventually ruled that lunch would be served at the end of classes and only children who attended all classes would be fed.

It is indeed probable that this potential for education of the "illiterate masses", most especially the young women, and concurrent improvement of their nutritional status could play a significant role in Pakistan's development. CARE should be strongly encouraged to negotiate and implement such a program, providing suitable financial support can be found. Implementation of such a program would be in keeping with the government's new Family Welfare Program, and most likely would engender the support of the President's advisor who authored the new Plan.

If such a program of school feeding is begun, it should be done realistically, and there should be no expectation that in the immediate future the Government of Pakistan would accord it overwhelming support. Support would come gradually over time as the program's value becomes apparent.

Outstanding Issues

The benefits of having a healthy population residing in an area which supports its needs does not yet seem to have become obvious to the Government of Pakistan. For the first time in Pakistan's history the new Population Welfare Plan articulates a coherent, comprehensive program for improving the quality of life, especially for the poorer classes.

Does this herald a new departure? To date, the Plan does not seem to have the support necessary to the achievement of its goals.

ENDNOTES: CHAPTER V

1. Richard F. Nyrop, B. L. Benderly, C.C. Conn, W.W. Cover, M.J. Cutter and N.B. Parker, Area Handbook for Pakistan (Fourth Edition), (American University, Washington, D.C. 1974), p. ix.

2. World Bank Report No. 2018-PAK. Pakistan: Population Planning and Social Services, (1978), p. 10.

3. U.S. Bureau of the Census Country Demographic Profiles: Pakistan, (March, 1980).

4. S.J. Burki, "Rapid Population Growth and Urbanization," Pakistan Economic and Social Review VII, (1973), pp. 239-276.

5. Government of Pakistan, Statistical Division, Pakistan Statistical Yearbook, 1978, (Karachi 1979).

6. Kingsley Davis, The Population of India and Pakistan, (Princeton: New Jersey, 1951), p. 85.

7. World Bank, op. cit., p. 11.

8. Davis, op. cit.

9. Naseem Il Farooqui and Iabal Alam "Provisional Abridged Life Tables for Urban and Rural Areas in Pakistan, Based on PGS 1968, and 1971, The Pakistan Development Review, 8:3 (1974), 335-352.

10. World Bank, op. cit.

11. U.S. Bureau of the Census, op. cit.

12. Farooqui and Alam (op. cit.) indicate that life expectancy at birth in 1968 was 54 in urban areas and 52 in rural areas.

13. Ministry of Finance Planning and Development Statistical Division, Population Growth Survey 1971, (Karachi, 1974).

14. Ibid.

15. Kingsley Davis, op. cit.

16. World Bank, op. cit.

17. This target population was estimated at 9.2 million. 25 percent of 9.2 million = 6.9 M couples.

18. U.S. Bureau of the Census, op. cit.

19. (See, for example:)
    (a) Robert Cuca and Lee L. Bean, Family Planning in Pakistan: A Review of the Continuous Motivation System, (World Bank, Washington, D.C., 1975).

    (b) Government of Pakistan, Population Planning Council, World Fertility Survey: Pakistan Fertility Summary, First Report, (Islamabad, 1975).

    (c) Prime Ministers Committee VIDE Cabinet Division Secret #20/CM/75 Report on the Population Planning Program, (Islamabad, August, 1975).

    (d) Comptroller General of the United States, Report to the Congress: U.S. Assistance to Pakistan Should Be Reassessed, (Washington, D.C.: Department of State, February, 1976).

    (e) Jarrett Clinton, W. Robinson, P. Reyes, and J. Norris, The Family Health Care Report on Pakistan's Expanded Population Planning Program (mimeographed paper), (Washington, D.C., 1976).

    (f) Werner H. Fornos, Consumer Demand, Marketing, and Commercial Distribution, Contraceptives in Pakistan APHA/USAID, (Washington, D.C., 1976).

    (g) Phyllis T. Piotrow, Report and Recommendations on Population Planning Program of the Government of Pakistan APHA/USAID.

    (h) Steven W. Sinding, Study of Family Planning Program Effectiveness, AID Program Evaluation Discussion Paper #5, USAID (Washington, D.C., 1979).

    (i) Population Division, Ministry of Planning and Development Government of Pakistan, The Fifth Five Year Plan, Population Planning Plan 1980-83 (sic), (Islamabad, 1980).

20. Pakistan: Population Planning and Social Services, World Bank Report No. 2018PAK, (1978).

21. Government of Pakistan, Population Planning Council, World Fertility Survey: Pakistan Fertility, (Islamabad, 1976).

22. Ibid., p. 18.

23. World Bank, Report No. 2018-PAK Pakistan: Population Planning and Social Services, (April, 1978), p. 27.

24. Ibid.

25. Muzaffa Mahmood Qureshi, Additional Chief Secretary for NWFP, and Secretary, Planning and Development NWFP, made this comment at a meeting with the Review Team on November 17, 1980.

26. See Appendix .

27. Dr. A Razzaque Rukanuddin, Chief, Population and Development Section, Pakistan Institute of Development Economics, and Mr. Khalil Siddiqi, Director, Registration and Statistics, Population Division, Government of Pakistan.

28. Akhtar H. Siddiqi, "Health Care Resources and Public Policy in Pakistan" Social Science and Medicine 14 (1980), pp. 291-8.

29. DS.J. Burki, "Rapid Population Growth and Urbanization" Pakistan Economic and Social Review 7 (1973), pp. 139-76.

30. Mushtaqur Rahman, "Urban and Rural Medical Systems in Pakistan" Social Science and Medicine 14 (1980), pp. 183-9.

31. Ibid., p. 283.

32. Siddiqi, op. cit., p. 296.

33. Rahman, op. cit., p. 283.

34. Rahman, op. cit., p. 285.

35. This discrepancy between urban and rural services has frequently been noted (e.g., Siddiqi, op cit., p. 296) and was confirmed in November, 1980, by the first hand observations of the Review Team.

36. Siddiqi, op. cit., p. 296.

37. The Review Team was frequently informed that physicians in private practice make "ten times" the salary of their counterparts in Public Service.

38. Rahman, op. cit., p. 228.

39. "Project Paper - Proposal and Recommendations for the Review of the Development Loan Committee: Pakistan Malaria Control, Amendment I" (Islamabad, September 20, 1977).

40. The Source of this detail was the Director of the Punjab Health Service, Dr. Khawaja.

41. With the rate of exchange at 10 to 1, this meant each trainee received an extra $30, for each month of training completed.

42. Siddiqi, op. cit., p. 291.

43. This statistic was mentioned frequently to the Review Team by Senior Pakistani Government officials in November, 1980.

44. Siddiqi, op. cit., p. 292.

45. Rahman, op. cit., p. 287.

46. op. cit.

47. Siddiqi, op. cit., p. 297.

48. Ibid., p. 297.

APPENDICES

APPENDIX A

A GLOSSARY OF DEMOGRAPHIC AND FAMILY PLANNING EXPRESSIONS EMPLOYED IN THIS REVIEW

CHILD (hood) Mortality	Mortality of children up to 15 years.
COHORT	A group of individuals who share a common experience at a given time, (e.g., born the same year, married the same year, etc.).
CONTINUOUS MOTIVATION SYSTEM (CMS)	
CRUDE BIRTH RATE (CBR)	The average annual number of births per 1000 persons in the (mid-year) population.
F.P.	Family Planning.
F.P.A.P.	Family Planning Association of Pakistan. This organization is affiliated with the International Planned Parenthood Federation.
GROWTH RATE	The average annual percent increase in the population. (The Natural growth rate makes no allowance for migration.) The growth rate results from there being a surplus of births over deaths.
I.M.R. INFANTILE MORTALITY RATE	This is a measure of frequency of death for infants in their first year of life. The rate is the number who die (in a year) per 1000 live births (in the same year).
I.P.P.F.	International Planned Parenthood Federation
I.U.C.D.	Inter-Uterine Contraceptive Device.

L.H.V.	Lady Health Visitor/s
LIFE EXPECTANCY AT BIRTH	The average number of years lived for a given cohort.
M.T.	Medical Technician(s).
NEW ACCEPTORS	The number of persons accepting contraceptive methods for the first time in a given time period.
UNDERENUMERATION	A population count which (erroneously) excludes some persons.
U.N.F.P.A.	United Nations Fund for Population Activities.
TOTAL FERTILITY RATE (TFR)	The average number of children born to a woman in her life.

APPENDIX B

POPULATION WELFARE PLAN - 1980-83

CONTENTS

I. SUMMARY OF THE PLAN

OBJECTIVES: To bring about a social change in attitudes and behavior leading to adoption of small family norm.

DEMOGRAPHIC GOAL: To bring down population growth rate from current 2.9% to 2.7% by:

1. Preventing 1.2 million births, and
2. Reducing Crude Birth Rate from 41 to 37.5 per thousand.

PHYSICAL TARGETS:

1. To raise knowledge from 33% to 55% of eligible couples.
2. To increase effectiveness of motivation to 33% of eligible couples.
3. To increase ever-users from 12.5% to 25% of eligible couples.
4. To increase current users from 9.2% to 19.4% of eligible couples.
5. To increase continuous users from 6.4% to 13.9% of eligible couples.

NATURE AND DIRECTION OF THE PROGRAM:

It will not be a single-purpose birth control program with clinical orientation but will use multi-sectoral approach integrating other basic requirements of masses, i.e., nutrition, health care, education, agriculture extension, vocational training and employment, housing, social security, water supply and sanitation, etc. In other words, the Plan uses the "Beyond Family Planning" approach.

In URBAN areas: Emphasis will be on improved delivery of service.

In RURAL areas: Emphasis will be on education and persuation.

GENERAL: Greater involvement of health institutions, other departments, private practitioners, Hakims and Hemeopaths,

local population and institutionalized sectors, e.g., Pakistan International Airlines (PIA), Water and Power Distribution Authority (WAPDA), Armed Forces, Postal and Railways, etc.

BASIS ADMINISTRATIVE INFRASTRUCTURE

Details: Please refer attached spread sheet 'A'.

Policy: The responsibility to carry out the planned program will rest with the Provincial Governments.

SUPPORT ACTIVITIES

1. EVALUATION
   a. Contraceptive Use Prevalence Survey - twice during the plan period.
   b. Vital Registration (of Births and Deaths).
   c. Population and Housing Census - to be carried out by the Census Department.
   d. Recording, Reporting and Feedback Systems.

2. RESEARCH
   a. Bio-Medical and Socio-Medical
   b. Social Policy and Beyond Family Planning Measures
   c. Social Research

3. TRAINING

   Orientation, Education, Clinical, and Non-Clinical

4. LOGISTICS (million dollars)

Contraceptives	$15.923
Photographic/Press material and paper supplies	$ 1.327
Transport, Medical Equipment MCH Kits, Office Equipment, medicines and diet supplements, etc.	$10.207
	$27.457

COST OF THE PLAN

GOP inputs	$29.425 million
Donor Assistance	$64.429 million
TOTAL (for 3 years)	$93.854 million

PROGRAM ACTIVITIES AND COMPONENTS

A. CORE PROGRAM

1. Family Welfare Center Project
2. Reproductive Health Project
3. Family Health Manpower Development Project

B. PLAN PROJECTS

1. Provincial Program Plans (one each for four provinces).
2. Women and Population Development
3. National Population Education
4. National Population Education
5. NGO's and Population Development
6. Infrastructure Institutions and Population Welfare.
7. Development Communication Strategy and Population Development.
8. Commercial Distribution of Contraceptive Plan.
9. Target Group Institutions and Population Welfare
10. Azad Kashmir and Northern Areas Population Welfare Projects

II. PROGRAM ACTIVITIES AND COMPONENTS

A. CORE PROGRAM

1. FAMILY WELFARE CENTERS PROJECT

Project: Existing Population Planning Clinics (1000) will be converted into 'Population Welfare Centers'.

Functions: Provide a base for community welfare activities such as child care; pre and post natal check-ups; referrals to Reproductive Health Service Centers and hospitals; treatment of common/minor ailments; act as mothers club and provide vocational training and functional education; training of Traditional Birth Attendants (Dais); act as contraceptive supply depot; provide conventional and clinical contraceptive services and follow-up.

Location: Rural and Peri-urban areas where no Health Department center exists.

Coverage: Each Family Welfare Center will cover population of 25,000 to 30,000.

Staff: 1 Family Welfare Worker, 2 Family Welfare Assistants (one each male and female), 1 Attendant, and 20-40 Volunteers (non-salaried) who will be Center's outreach workers.

Supervision: Overall supervision by District Population Welfare Officer, technical supervision by a team of Family Welfare Councilors-one team for each four centers.

Community Involvement: Local community leaders will provide building space. A local Advisory Committee will be set up to provide guidance and watch progress.

Magnitude:

At the beginning of project	750 centers
At the end of project	1,250 centers

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2. REPRODUCTIVE HEALTH SERVICES PROJECT

Activities: Gynecologic and Obstetric Care
Child Care and Child Spacing
Infertility Services
Contraceptive Surgery and Training of Surgeons

Components:
a. Population Division Service Outlets Project
b. Family Planning Association's Contraceptive Sergical Projects
c. Lady Dufferin Hospital Project, Karachi
d. Sheikh Zayed Hospital Project, Larkana
e. Reproductive Health and National Endoscopy Project

A Brief on each Component

a. Population Division Service Outlets Project

Comprise of: Existing Voluntary Ster. Centers (VSCs) categorized as:
1. Service Centers attached to Teaching Hospitals
2. Service Outlets

Functions: Will include Extension Service thru Mobile Teams

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b. Family Planning Association of Pakistan's (FPAP's) Contraceptive Surgical Project

Functions: Provide safe and reliable contrac. surgical services

Coverage: 24,300 clients in three year life of the project

Locations:
1. Free Standing Clinics of FPAP in Lahore and Karachi
2. Government Hospitals in Quetta, Peshawar, Mardan, Rahimyarkhan, Haripur and Mingora in Swat
3. Private Hospitals in Sialkot, Faisalabad and Jhang
4. Contraceptive Surgical Extension Service through visits of Mobile Teams of FPAP project surgeons to the district and tehsil hospitals.

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(c) Lady Dufferin Hospital, Karachi

Functions: "Total Care Service" to increase male and female sterilization as well as immunization, information, education and communication and preparation of Mobile Teams to conduct Contraceptive Surgical camps in South Sind villages.

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(d) Sheikh Zayed Hospital, Larkana

Activities: Reproductive health and contraceptive surgical outreach through Mobile Teams
Training of Dais (Traditional Birth Attendants)
Baseline Data collection

Coverage: 4 Tehsils, 2 villages in Larkana district.
Extension to cover Northern Sind district.
32 Traditional Birth Attendants trained in 2 years.

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(e) National Endoscopy Project

Title: "Pakistan Reproductive Health Association: Pakistan National Endoscopy, Surgical Contraceptive and Reproductive Health Educational Program."

Base: Medical School Teaching Hospitals in the country

Activities: Contraceptive Surgery
Training of 800 physicians and 800 nurses in sterilization techniques
Promotion of a quality service program

Implementing Agencies: Pakistan Reproductive Health Association

Other Agencies: Health Department - policy-making, planning, coordination and evaluation
Population Division - technical guidance and periodic monitoring
UNFPA - funding and periodic monitoring

Period: Initially three years with possible one to two year extension

3. FAMILY HEALTH MANPOWER DEVELOPMENT PROJECT

Activity: To train and retrain (refresher courses) Population, Health and other department personnel in the integrated service approach.

Implementing Agencies:

A. Federal: Directorate of Population Welfare Training, Islamabad.
Directorate of Clinical Training, Karachi.

B. Provincial: Population Welfare Training Institutes - one in each province.

C. District: Regional Training Institutes - 12

Coverage:

Population Personnel - 600 officers (orientation)
640 senior Lady Health Visitors (LHV) and Family Welfare Workers (FWW)
2400 Lady Health Visitors/ Family Welfare Workers
1650 Frontline workers

Teachers - 180 professional reorientation and mid-level training.

Inter-sectoral - Training in Medical colleges and Nursing Schools, coordination and managerial workshops.
Community Leadership Orientation Courses.

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A. PLAN PROJECTS

1. PROVINCIAL POPULATION WELFARE PLANS

(a) PUNJAB POPULATION WELFARE PLAN

Sectors Involved:

Education	Labor	Social Welfare
Health	Agriculture	Rural Development
Local Government		

Activities: Largest Family Welfare Centers (290).
Health Sector - use 2582 Health staff for education, motivation and clinical services.
Education - teaching of population dynamics at formal and non-formal education centers.

Labor - 120 Social Security Health units will provide family planning services. Orientation courses for Labor officials.
Social Welfare - training of 3000 staff members of 225 institutions; 120,000 voluntary social workers will be motivated.
Agriculture - one day courses for 3500 Agriculture Field Assistants.
Local Governments - family planning services will be introduced in selected health centers of Zila Councils/Municipal Committees/Municipal Corporations/Town Committees.
Existing 4500 adult educational centers to be used for disseminating family planning information.
Dais - will be trained and provided necessary delivery kits.

(b) SIND POPULATION WELFARE PLAN

Sectors Involved:

Education	Health	Social Welfare
Local Government	Labor	Sind Small Industrial Corporations

Activities:

Education - non-formal training of teachers
Health - use of over 1500 medical and paramedical institutions to provide family planning service and education.
Social Welfare - grants to set up clinics in social welfare sectors to provide family planning service, train volunteers and provide technical assistance.
Frame bye-laws for fund generating activities
200 training courses for rural volunteers.
Social Security - to be used for motivational and clinical programs for labor class. Seminars and workshops for labor leaders/representatives.
Small Industrial Sector - population education to be added in police training 30,000 police employees.

(c) NWFP POPULATION WELFARE PLAN

Sectors Involved:

Health	Social Welfare/Women
Education	Labor
Local Government	Rural Development

Activities:

Health - 188 Family Welfare Centers to provide health and population (H&P) services.
1309 Health establishments to provide H & P services.

Training of mid-level health functionaries
Education - introduce population education in adult educational centers
Labor - involve 44,000 workers of 205 factories through 14 "Industrial Coverage Projects" to provide family planning service and education.
Rural Development - involve 51,647 members of 1374 village organizations in population education and service.
Local Government - formulate 436 coordinating committees at Union Council level and 12 coordinating committees at District Council. These committees will be used for disseminating population education/welfare.

Evaluation: Annual and periodic evaluations to judge impact of services vis-a-vis Infant Mortality Rate, Maternal Mortality Rate, Birth Rate and Community reaction to the new program.

(d) BALUCHISTAN POPULATION WELFARE PLAN

Sectors Involved:

Education	Health	Social Welfare
Local Government	Labor	Agriculture
Live Stock	Police	Small Industries Directorate

Activities: Education - Population education in three vocational institutes producing 900 trainees per year.
Health - Family planning services will form part of preventative health services; integral linkage between family health and welfare and small family norm. Mobile Teams for areas having no Gynecology facilities to provide maternity and family planning services. Reimbursements for sterilizations performed by hospitals.
Social Welfare - in 1981, 6 MCH* centers to provide health, nutrition and family planning services and treat minor ailments. Existing 83 social welfare projects in rural areas will also provide family planning services.
Industrial Sector - Pakistan Mineral Development Corporation will add family planning services to its 9000 workers.
Labor - three pilot health services units in industrial estates at Quetta, Gaddani, Norwan, Sinjdi and Duki mines areas to provide MCH*, general ailment treatment and family planning services.

*mother and child health

2. WOMEN AND POPULATION DEVELOPMENT PROJECT

Objective: To promote increased awareness of the links between family planning and other individual and community problems and to create conditions for family planning acceptance and small family norm.

Components: Eight sub-projects with varying activities. These are summarized on Attachment "C"

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3. YOUTH AND POPULATION DEVELOPMENT PROJECT

Activities: Introduce population education in existing curricula and special post-graduate courses.
Organize and participate in volunteer social works for community welfare.
Develop youth leadership through orientation sessions and contests on population dynamics.
Encourage youth to conduct studies and research on population related problems.
Establish Population Study Centers in two selected universities.

Implementing Agencies: Population Division; University Grants Commission; Universities and Colleges.

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4. NATIONAL POPULATION EDUCATION PROJECT

This project endeavors to create a realistic understanding of population issues among teachers/educators/trainers. It is expected that such understanding will be shared with students and create better awareness of the population situation.

The project comprises of both formal and non-formal education efforts. Various project components are briefly described in Attachment "D".

5. NON-GOVERNMENT ORGANIZATION's POPULATION DEVELOPMENT PROJECT

Non-Governmental Organizations (NGOs) Involved	Activities and Scope
1. Teacher's Coordination Council (Consortium of Teachers Association)	Orientation of teachers in population dynamics and family life education.
2. Family Planning Association of Pakistan (FPAP)	Whole range of population activities including information and education, motivation, services and communication.
3. Mother and Child Welfare (MCW) Association	Benchmark survey and operational research for an integrated model task-oriented Mother and Child Health (MCH)/Family Planning services at two centers.
4. Pakistan Nurses Federation	Training and involvement of nursing tutors and ward administrators in family planning education.
5. College of Family Medicine - Punjab Branch	Motivating family physicians and involving them in providing family planning services to their patients.
6. Karachi Business and Professional Women's Club	Establish Day Care Centers and cooperative stores for ladies and use these for family life education and family planning services.
7. Pakistan Voluntary Health and Nutrition Association (PVHNA)	Add population component into PVHNA's nutrition program.
8. All Pakistan Women's Association (APWA) - NWFP Branch	Add family planning training, education, motivation and service in APWA's multi-purpose rural development center covering five villages near Peshawar.
9. Government Polyclinic - Pediatrics Department, Islamabad	Train workers in health education, nutrition, immunization, child-spacing and delivery of primary health care.

6. INFRASTRUCTURE INSTITUTIONS AND POPULATION WELFARE PROJECT

Institutions Involved:

1. a) Pakistan Pan/Cigarette Farosh Union, Lahore
   b) Pakistan Rickshaw/Taxi Driver Union, Lahore
   c) Pakistan Barbers Union, Lahore

2. Hakims

3. All Pakistan Postal Employees Union

Scope and Activities of each Institution

1. a) Pan/Cigarette Farosh (Sellers) Union - 12,400 shops in six cities around Lahore.
   b) Rickshaw/Taxi Drivers Union - 400 drivers.
   c) Barbers Union - 12,000 barbers in Lahore.

   Supply of motivational/publicity material
   Publication of articles in Unions' journals
   One-day orientation workshops
   Supply of contraceptives for sale - act as distributing agents

2. Hakims - 1200 Hakims in 23-25 selected districts will provide community-based services, i.e., contraceptive distribution plus referrals for clinical contraception.

   Implementation of project through a 'Rahbar Committee', 'Area Hakims', and 'Worker Hakims'. Area Hakims will have 'Dais" as assistants. Area Hakims and Dais will get Rs. 500 and Rs. 400 per month, but Worker Hakims will work free. Referral fees @ Rs. 10 for Tubaligation and Rs. 3 for each case of Intra Uterine Device (IUD) or Injectable.

3. Postal Employees Union - orientation courses and training workshops. Add population dynamics in three Postal Training Centers.
   450 Brass Slogan Stamps to deface stamps.
   Women social welfare development workshops in Postal Residence Colonies.
   Motivation and delivery of Family Planning Services.

7. DEVELOPMENT COMMUNICATION STRATEGY AND POPULATION DEVELOPMENT

Activities:

a) Person-to-person communication: Through peer group natural leaders, professionals and satisfied clients.

b) Printed materials - Pictorials, articles in Newspapers, Journals, Periodicals, Family Planning Association of Pakistan's Sukhi-Ghar, Wall Newspapers.

c) Electronics and Film Media - Radio, TV, Cinema, Audio Visual Van.

d) Fixed Position Media - bill boards, bus panels, neon signs.

e) Traditional/Folk Media - village fairs, exhibitions, folk artists.

f) Information Clearing House - collection, collation and dissemination of relevant information to various target groups, policy makers, opinion leaders, health practitioners, religious leaders and program personnel.

Implementation: By Population Division through:

National Communication Advisory Committee
Provincial Communication Advisory Committee
Publication and Production Unit

8. SOCIAL MARKETING OF CONTRACEPTIVES PROJECT

Activities: Sale of conventional contraceptives (condoms, oral pills and spermicidals) through commercial outlets (100,000).

Implementing Agencies: Population Division through a Commercial Marketing Bureau and a Project Council.

Population Services International (PSI) - consulting services.

One Distribution Firm in each of the four provinces.

United Nations Fund for Population Assistance (UNFPA); World Health Organization (WHO); and International Planned Parenthood Federation (IPPF) - to provide Contraceptives.

Promotion: Demand creation through informational, educational and promotional material and other motivational campaigns using various media.

9. TARGET GROUP INSTITUTIONS AND POPULATION WELFARE PROJECT

Activities:

1. Orientation workshops and courses
2. Preparation of curricula and teaching aids
3. Workshops and Health/Welfare/Labor staff training in motivation and service delivery
4. Use of existing training facilities for training in family planning and welfare
5. Use of existing Health facilities in providing family planning services
6. Use of existing Canteens, Stores, Shops, Clubs, Union and Labor Welfare offices for contraceptive distribution.

* * * * * * * * * * *

Institutions Involved/ and Components	Implementing Agency
1. Workers Population Education Project (Various factories and Social Security and Welfare Dept.)	Federal - Workers Population Coordination Council of Pakistan Provincial - Workers Population Coordination Committee Factory - Labor Welfare Committee
2. Pauji Foundation Population Welfare	A Project Committee
3. Armed Forces Family Welfare Project	
a) Pakistan Army (4 Cantonments - Quetta, Kharian, Kohat and Hyderabad)	A Project Coordination Committee
b) Pakistan Navy (Karachi and Islamabad)	A Project Coordinator

c) Pakistan Air Force (Risalpur, Kohat, Korangi Creek, Peshawar, Lahore and Karachi)	Project Coordinator
4. PIA* Family Welfare Project	
5. Kohistan Development Board (KDB) Social Development Project	
6. WAPDA** Population Welfare Project	Medical and Curriculum Committees
7. Pakistan Railways Population Welfare	Population Coordinating Council Workers Welfare Committees
8. Pakistan Steel Mill Population Welfare Program	

* * * * * * * * * * *

10. AZAD KASHMIR AND NORTHERN AREAS POPULATION WELFARE PROJECT

A. Azad Government of Jammu and Kashmir

Activity:

1. Training of medical, para-medical staff and Dais in contraceptive technology and population dynamics.
2. Contraceptive distribution through all medical outlets.
3. Orientation and involvement of volunteers and councillors.
4. Information education and communication through word of mouth and display materials.
5. Population education to be added in curricula and training of teachers.
6. Establishment of 10 adult functional Literacy Centers.
7. Establishment of 2 model MCH Centers.
8. Sterilization-cum-Obstetric camps through Mobile Teams of doctors.
9. Mass communication regarding population through Azad Kashmir Radio.

*Pakistan Internation Airlines
**Water and Power Development Authority

Implementation: Family Planning Association of Pakistan (FPAP)
Azad Jammu and Kashmir Government Health Department

B. Northern Areas

Activity:

1. Improvement of existing Mother and Child Health (MCH) services and adding comprehensive Family Planning services in them.
2. Two week training of Health Guards in nutrition, dissemination of Family Planning advice and distribution of conventional contraceptives.
3. Contraceptive services through existing Government hospitals, MCH centers and dispensaries.
4. Involvement of Agha Khan Health community in dissemination of family planning information/knowledge and providing contraceptive services.
5. Voluntary sterilization sessions at main hospitals (Gilgit, Skardu and Chilas) through Mobile FPAP/Khyber Medical Doctor Teams.
6. Doctor teams also provide Obstetric/ Gynecologic examinations.

Implementation: Family Planning Association of Pakistan (FPAP)
Agency Surgeon, Gilgit.

Attachment A

BASIC ADMINISTRATIVE INFRASTRUCTURE TO UNDERTAKE CORE PROGRAM AND MONITOR PROJECTS

FUNCTIONS	FEDERAL/NATIONAL	PROVINCIAL	DISTRICT	SUB-DISTRICT VILLAGE/COMMUNITY
OVERALL POLICY GUIDANCE, REVIEW AND COORDINATION				
Agency:	NATIONAL COUNCIL FOR POPULATION PLANNING	PROVINCIAL COUNCIL FOR POPULATION PLANNING	DISTRICT POPULATION COMMITTEE	ADVISORY COMMITTEE
Composition:				
Chairman	President/Chief Martial Law Administrator/Prime Minister	Governor/Chief Minister	Chairman District Council	Local Councillor
Members	Ministers of several ministries Advisor on Population Planning Secretary Population Division Deputy Chairman, Planning Commission Presidents, Family Planning Association of Pakistan and Pakistan Medical Association	Ministers, Secretaries, Chief Secretary 2 Distinguished Population Welfare Workers Additional Chief Secretary Planning and Development Area Vice President of Family Planning of Pakistan	Deputy Commissioner - Vice Chairman District Representatives of various departments 2 Distinguished citizens Representative of Family Planning Association of Pakistan	Six persons selected from local community leaders
Member/ Secretary	Additional Secretary, Population Division	Secretary/Director General Population Department	District Population Welfare Officer (DPWO)	
EXECUTION/IMPLEMENTING AGENCY				
Agency Title	Federal Population Division	Provincial Population Department *A separate Department will be created within the Provincial Government	District Population Welfare Office** **50 High density big districts plus 15 low desnity small districts	Family Welfare Center*** ***To start with 750 Family Welfare Centers will increase to 1250 by 1983

Attachment A (continued)

Agency Incharge	Additional Secretary, Population Division	Secretary/Director General	District Population Welfare Officer	Family Welfare Worker
Infrastructure	Refer Organizational Chart@@	Refer Organizational Chart@@	Refer Organizational Chart@@	2 Family Welfare Assistants (1 each male and female) 1 Helper 20-40 non-salaried Community Volunteers
Attached/ Subordinate Departments	Directorate of Population Welfare Training, Islamabad Directorate of Clinical Training, Karachi National Reproduction and Technical Institute, Karachi Directorate of Publications, Lahore Directorate of Stores, Karachi			
Autonomous bodies	Commercial Marketing Bureau, Karachi Population Development Center, Islamabad			

@@Not readily available, will be submitted later

Attachment B

POPULATION WELFARE PLAN 1980-83

COST OF PLAN (IN MILLION U.S. $)

ACTIVITIES	Total	"Funding Source" GOP	Donors	"GOP Funding by Fiscal Year" FY 81	FY 82	FY 83	"Donor Funding by Fiscal Year" FY 81	FY 82	FY 83
SUMMARY									
Core Program	23.750	4.524	19.226	.976	1.754	1.794	6.070	7.362	5.794
Plan Projects	23.062	1.185	21.877	.360	.412	.413	7.118	8.162	6.597
Allied Units, Research Training, Evaluation, Commodity, Equipment, etc.	47.041	23.715	23.326	8.728	7.319	7.668	8.249	6.807	8.270
TOTAL COST OF PLAN	93.853	29.424	64.429	10.064	9.485	9.875	21.437	22.331	20.661
BREAKDOWN BY PROJECT AND ACTIVITIES									
A. CORE PROGRAM									
1. Family Health and Manpower Development	5.483	2.308	3.175	.374	.976	.958	1.594	1.373	.208
2. Reproductive Health Project	4.548	.801	3.747	.145	.307	.349	.887	1.682	1.178
3. Family Welfare Centers	13.719	1.415	12.304	.457	.471	.487	3.589	4.307	4.408
SUB-TOTAL	23.750	4.524	19.226	.976	1.754	1.794	6.070	7.362	5.794
B. PLAN PROJECTS									
1. Provincial Projects	1.593	-0-	1.593	-0-	-0-	-0-	.588	.506	.499
2. Women and Population Development	5.276	.120	5.156	.045	.037	.038	1.306	1.662	2.188
3. Youth and Population Development	.934	-0-	.934	-0-	-0-	-0-	.248	.406	.280
4. National Population Education Project	5.134	-0-	5.134	-0-	-0-	-0-	1.674	2.296	1.164
5. Non-Government Organizations and Populations	.712	-0-	.712	-0-	-0-	-0-	.208	.230	.274
6. Communication Strategy & Population Welfare	5.301	-0-	5.301	-0-	-0-	-0-	1.800	1.753	1.747
7. Commercial Distribution of Contraceptives	1.508	-0-	1.508	-0-	-0-	-0-	.597	.910	-0-
8. Target Institutions and Population Planning	.596	-0-	.596	-0-	-0-	-0-	.335	.125	.137
9. Azad Kashmir & Northern Areas Pop. Project	.247	-0-	.247	-0-	-0-	-0-	.142	.050	.054
10. Infrastructure and Population Welfare	.696	-0-	.696	-0-	-0-	-0-	.220	.222	.254
11. Logistics-Common Transport Expenses	1.065	1.065	-0-	.315	.375	.375	-0-	-0-	-0-
SUB TOTAL	23.062	1.185	21.877	.360	.412	.413	7.118	8.162	6.597

POPULATION WELFARE PLAN 1980-83

COST OF PLAN (IN MILLION U.S. $)

ACTIVITIES	Total	"Funding Source"		"GOP Funding by Fiscal Year"			"Donor Funding by Fiscal Year"		
		GOP	Donors	FY 81	FY 82	FY 83	FY 81	FY 82	FY 83
C. ADMINISTRATIVE MANAGEMENT AND SUPPORT COSTS									
1. Population and Allied Units	5.389	5.389	-0-	1.706	1.840	1.843	-0-	-0-	-0-
2. Regional Training Institutes	1.673	1.673	-0-	.591	.479	.603	-0-	-0-	-0-
3. Provinces	13.166	13.166	-0-	4.307	4.351	4.508	-0-	-0-	-0-
4. Family Welfare Centers	1.580	1.580	-0-	1.580	-0-	-0-	-0-	-0-	-0-
5. Sterilization Program	.346	.346	-0-	.346	-0-	-0-	-0-	-0-	-0-
6. Evaluation	3.303	-0-	3.303	-0-	-0-	-0-	1.500	.928	.875
7. Population Development Centers	2.503	1.561	.942	.198	.649	.714	.012	.416	.314
8. Rewards	1.618	-0-	1.618	-0-	-0-	-0-	.495	.561	.562
9. Training	.213	-0-	.213	-0-	-0-	-0-	.071	.071	.071
10. Commodity and Equipment	17.250	-0-	17.250	-0-	-0-	-0-	6.171	4.631	6.448
SUB TOTAL	47.041	23.715	23.326	8.728	7.319	7.668	8.249	6.807	8.270

3. WOMEN AND POPULATION DEVELOPMENT PROJECT

Components	Scope of Activities	Implementing Agency
a. Women in Social Development Program	Mobile Teams conducting orientation workshops; Information and Education on health, nutrition, literacy and family planning; Income-generation to encourage self-reliance.	5 Mobile Field Teams of the Population Division.
b. Women in Social Development Program	Similar activities as above	6 Mobile Field Teams of the Family Planning Association of Pakistan.
c. Relay Training Service for Women in Population and Development	Pilot project to train 900 trainers on education, health care, employment opportunities and family planning.	A Core group of the Non-Governmental Organizations (NGOs).
d. Girl Guides Better Living Program in N.W.F.P.	1050 brick wells for potable water in 6 villages near Peshawar; Dai training and education in family welfare, nutrition, education, literacy handicrafts.	Girl Guides Association of North West Frontier Province.
e. Mother and Child Health and Mother's Club Program	Addition of family planning component in existing Mothers Clubs; Day Care Center and Industrial Home.	Behbood Association of Rawalpindi.
f. Women in Population & Development	Revival of Durree Cottage Industry to promote cooperative concept economic activity of women and promote family planning acceptance through education and social awareness.	Awami Muslim Anjuman-e-Bahbood and Family Planning Association of Pakistan
g. Training of Traditional Birth Attendants (Dais)	Train 5000 Dais who will promote healthy living and family welfare including spacing births.	Population Division's Family Welfare Workshops and 5 mobile teams of two para-medics each.
h. Essential Care of the Mother and	Health education, immunization, nutrition and child spacing. Also distribution of food to selected mothers and children.	Population Division's Family Welfare Centers

4. NATIONAL POPULATION EDUCATION PROJECT

Sr. No.	Project Component	Activity and/or Scope
A.	**FORMAL EDUCATION**	
1.	Curriculum Development and Text book Review	(i) Federal Curriculum Committee for various subjects will organize workshops (ii) Text book Review by Provinces
2.	Training of Teachers	Institutionalized training combined with correspondence course plus radio and television tutorial sessions to train: 56,000 primary teachers 33,000 middle/high teachers 3,000 college teachers
3.	Orientation of Educational Administrators, Teacher Educators and Key Personnel	12,000 personnel to be trained in ten day workshops
4.	Development of Audio-visual aids	32,250 schools will be provided with teaching kits on Population
5.	Teachers Guides on Population Education Development and Printing	41,450 Guides to be produced for all levels by Federal Committees
6.	Population Education through Agro-technical Comprehensive Schools	Experiemental Pilot Project in 16 Agro Techs.
7.	Implementing Cells/Coordination Committee/Clearing House	4 Provincial Units at Departments of Education 1 Federal Unit at Federal Education Ministr 1 Clearing House and Training Center at Allama Iqbal Open University
8.	Research and Evaluation	Mid-term and Final Evaluation and specific Research Studies
B.	**NON-FORMAL EDUCATION**	
1.	Establishment of National and Provincial Coordination Committee	To coordinate the various agencies involved in the program and ensure uniformity of standards

APPENDIX C

POPULATION

Distribution of Contraceptives*

MONTH	ORALS (000 Monthly Cycles)	CONDOMS (000 Pieces)
May, 1974	113	2,200
December, 1974	180	2,880
January, 1975	195	6,048
February, 1975	205	7,920
March, 1975	227	8,352
April, 1975	255	8,568
May, 1975	291	9,360
June, 1975	396	12,400
July, 1975	460	12,033
August, 1975	457	15,206
September, 1975	474	16,560
October, 1975	448	16,728
November, 1975	468	14,832
December, 1975	359	11,887
January, 1976	443	10,181

*This represents distribution from central warehouse to provincial warehouses. We believe these figures generally approximate distribution by field workers to individual families clinics, hospitals and retail sales agents. An information system that will track distribution through the delivery system to the consumer is now being installed.

ASIA/SA/P
March 23, 1976

OVERSEAS EMPLOYMENT CORPORATION LIMITED
(A Federal Government Enterprise under the Ministry of Labour Manpower and Overseas Pakistanis)
ADVERTISEMENT
No. 30 80 (PUBLIC)
CODE No 44,4-pub-57 80.

WANTED IRRIGATION ENGINEERS FOR NIGERIA

1. A recruiting team from the Nigeria River Basin Development Authority KWARA State of Nigeria will carry out recruitment for the following posts from Nov. 6 to Nov. 10, 1980.

a. Chief Irrigation Engineer B.Sc. in Civil Engineering with at least 20 years practical experience in Irrigation Engineering. The candidates must not be older than 50 years.

Salary — GL 14 (N 9,168 — N 10,128) per annum.

b. Chief Civil Engineer: B.Sc. in Civil Engineering with at least annut 20 years practical experience in civil engineering Works involving structural construction. Age not more than 50 years

Salary — GL 14 (N 9,168 — N 10,128) per annum.

c. Principal Irrigation Engineers: B.Sc. Civil Engineering with about 14 years of practical experience in irrigation engineering.

Salary — GL 12 (N, 7,404 — N 8,052) per annum.

d. Senior Irrigation Engineers: B.Sc. Civil Engineering with about 10 or more years of practical experience in irrigation engineering.

Salary — GL 10 (N 5,760 — N 6,732) per annum.

e. Irrigation Engineer Civil: B.Sc. Civil Engineering with about 5 years or more experience in irrigation engineering.

Salary GL 09 (N 4,668 — N 5,430) per annum.

Exchange Rate 1 Naira = 1.8 U.S. Dollars.

2. Interested candidates possessing degrees and experience in the above fields should present themselves for interviews selection by Nigerian Recruiting Team at our following offices as under:-

	Date of Interview
a. Executive Director, Overseas Employment Corporation Ltd. Red Crescent Building, Dr. Daud Pota Road, Karachi.	5 & 7 Nov '80 (0830 hours)
b. Executive Director Ops (Public), Overseas Employment Corporation Ltd., Head Office, Iqbal Road, Westridge-I, Rawalpindi.	9 & 10 Nov. '80. (0830 hours)

3. The candidates will bring with them two passport size photographs, photocopies of degrees diplomas, experience certificates and other relevant documents for the interviews. Bio Data brought by hand should contain the following details:

a. Advertisement No
b. Country of employment
c. Post applied for.
d. Correspondence Address
e. Name & Father's name.
f. Date of Birth.
g. Age as on 30th Oct. '80.
h. Qualifications.
i. Experience.
j. Any additional information.

Notes:

a. No TA/DA will be admissible to the candidates who are called for interviews
b. Government/Semi Government employees should apply through proper channel.
c. Applications once received will neither be returned nor acknowledged.

GENERAL MANAGER PMD.

PID (I) Advt. 1308119

Overseas Employment Corporation Limited
A Federal Government Enterprise under the Ministry of Labour Manpower & Overseas Pakistanis.

ADVERTISEMENT NO. 29.80(PUBLIC)
CODE NO. 44'4-pub-58 80

WANTED ENGINEERS FOR ALGERIA

1. Following categories of engineers (25) are required immediately for employment with Ministry of Hydraulics, Algeria:

a. TOPOGRAPHIC ENGINEERS
b. HYDRAULICS ENGINEERS
c. CIVIL ENGINEERS
d. ELECTRO MECHANICAL ENGINEERS

2. QUALIFICATIONS AND EXPERIENCE. Minimum 5 years experience after graduation in the specialised field.

3. TERMS & CONDITIONS OF SERVICE ARE:

a. Initial contract. Two years (extendable)
b. Salary ranging from Rs. 10,000 to Rs. 17,000.
c. Simply furnished accommodation subject to deduction of 15% House Rent.
d. Passage to and from Algeria for self and family.
e. Annual leave for one month.
f. Return ticket for self and family every two years.
g. Gratuity equal to half month salary for every year of service.
h. Transfer of currency according to laws in force.

4. Interested candidates possessing degrees in the relevant fields in the above subjects may present themselves for interview/selection at place and dates noted below. They will bring with them two passport size photographs, photocopies of degrees diplomas and other relevant documents for handing over

	Date of Interview
EXECUTIVE DIRECTOR OPERATIONS (PUBLIC), OVERSEAS EMPLOYMENT CORPORATION LIMITED, I-IQBAL ROAD, WESTRIDGE-I, RAWALPINDI.	3rd November, 1980 (0900 hours).

5. Applicants must bring with them bio-data containing the following details along with their applications

a. Advertisement No. .....
b. Country of employment ....
c. Post applied for .....
d. Correspondence Address ..
e. Name & Father's Name .....
f. Date of birth
g. Age as on 25 Oct. 1980 .....
h. Qualifications
i. Experience .....
j. Any additional information

NOTES:

a. No TA/DA will be admissible to the cand who are called for interviews.
b. Government/Semi Government employees apply through proper channel.
c. Applications once received will neither be returned nor acknowledged.

GENERAL MANAGER

[illegible] Advt. No. 1307119

SHAFAT GMBH WEST GERMAN (GROUP OF COMPANIES)

REQUIRED
FOR THEIR PROJECT IN SAUDI ARABIA

1. PROJECT ENGINEER: Nos 4

GRADUATE OR DIPLOMA IN ELECTRICAL ENGINEERING WITH AT LEAST 10 YEARS EXPEREINCE IN INSTALLATION, OPERATION, MAINTENANCE AND TESTING OF POWER PLANTS INCLUDING DIESEL GENERATING SYSTEM AND A.C. POWER CONTROL OF COAXIAL CABLE AND MICRO-WAVE SYSTEM ALONGWITH EXPERIENCE IN AIR HANDLING AND INVIR-ONMENTAL EQUIPMENT. ENGINEERS HAVING AT LAST 5 YEARS COMMERCIAL EXPERIENCE WILL ALSO BE CONSIDERED.

2. TECHNICIAN ELECTRICAL: Nos 16

DIPLOMA OR CERTIFICATE FROM POLYTECHNIC INSTITUTE IN ELECTRONIC TECHNOLOGY AT LAST 5 YEARS PRACTICAL EXPERIENCE IN ELECTRONIC AND TELECOMMUNICATION CONTROL ESPECIALLY IN THE INSTALLATION TESTING, MAINTENANCE AND OPERATION OF POWER PLANT CONSISTING OF GENERATING SETS AND A.C. POWER CONTROL ON COAXIAL CABLE SYSTEM AND MICROWAVE SYSTEM.

3. TECHNICIAN AIR-CONDITIONING: Nos 12

DIPLOMA OR CERTIFICATE FROM POLYTECHNIC INSTITUTE. AT LAST 5 YEARS EXPERIENCE IN AIR-CONDITIONING SYSTEM WITH ELECTRONIC CONTROL PREFERABLY ON PACKAGE TYPE U.S.A. A.C. SYSTEM.

4. TECHNICIAN DIESEL-CUM-DRIVER: Nos 16

DIPLOMA FROM POLYTECHNIC INSTITUTE AND AT LEAST 5 YEARS EXPERIENCE IN MAJOR OVERHAULING OF DIESEL ENGINES EXPERIENCE ON DEUTZ ENGINES WILL BE PREFERRED

OTHER TERMS AND CONDITIONS

		SALARY
1.	PROJECT ENGINEER	SR: 3500 PER MONTH
	TECHNICIAN ELECTRICAL	SR: 2000- PER MONTH
	TECHNICIAN AIR-CONDITIONING	SR: 2000- PER MONTH
	TECHNICIAN DIESEL-CUM DRIVER	SR: 2000 PER MONTH

2. FREE BACHELOR ACCOMMODATION WILL BE PROVIDED.
3. FREE MEDICAL TREATMENT IN SAUDI ARABIA.
4. THIRTY DAYS PAID LEAVE WITH RETURN AIR PASSAGE AFTER ONE YEAR OF ACTIVE SERVICE WITH THE COMPANY.
5. SERVICE CONTRACT WILL BE FOR TWO YEARS.
6. POSTING ANYWHERE IN SAUDI ARABIA.
7. OVERTIME WILL BE PAID IF ANY.
8. ADVANCE INCREMENTS POSSIBLE DEPENDING UPON THE EXPERIENCE RELEVANT TO THE JOB.
9. PERSONS HAVING VALID LICENCE WILL BE PREFERRED.
10. THE QUALIFICATION GIVEN ABOVE ARE RELAXABLE IN CASE OF PERSONS WITH LONG PRACTICAL EXPERIENCE ON THE JOB RELEVANT TO THE FIELDS OF ACTIVITIES.

PLEASE APPLY WITH FULL DETAILS OF EXPERIENCE WITH COPIES OF TESTIMONIALS, TWO RECENT PASSPORT SIZE PHOTOGRAPH, COPY OF NATIONAL IDENTITY CARD NOT LATER THAN 30TH NOVEMBER 1980.

M/s ANWAR OVERSEAS EMPLOYMENT AGENCIES

OVERSEAS EMPLOYMENT PROMOTER LICENCE NO. 0206/RWP/80

P.O. Box No. 522 317-D Satellite Town Rawalpindi.

Permission No. P. E. (E) 1315/80 Dated 6-11-80

WANTED

MEDICAL STAFF

ARMED FORCES MEDICAL SERVICES

UNITED ARAB EMIRATES

Require qualified and experienced (1) Nurse (SRN) or Qualified Medical Technician (2) Practical Nurse (SEN) or Practical Medical Technician and (3) Assistant Nurse or Assistant Technician. Interested candidates should appear in person with copies of Educational Experience Certificates Testimonials to Embassy of United Arab Emirates, Islamabad on any working day between 9 A.M. and 1 P.M. or phone: 22008. Candidates should not be over 40 years. Candidates should bring with them their passports Identity Cards.

OIL FIELD LOGGING

WANTED FOR SAUDI ARABIA

Our Principals, A Company engaged in Oil Field Logging round the globe require services of following for their operations in Saudi Arabia:

TECHNICIANS

Educated young persons holding Diplama in Mechanical Technology with special experience in hydraulic equipment.

Persons having knowledge about electronic eqpt, capable of reading circuit drawings and those having experience of AIRFRAME TECHNOLOGY will be preferred.

Minimum Experience ... 2 years.

TERMS OF SERVICE

Salary commensurate to qualifications but not less than minimum laid down by the Government.

Food Allowance will form part of the salary.

Free single accommodation.

Free Travel from Pakistan to Saudi Arabia and back.

Free medical treatment.

APPLICATIONS

Candidates fulfilling above requirements should immediately call on our office with their applications supported by their Bio Data and testimonials.

FRIENDS ENTERPRISES

11/14, Super Market, F-6, P. O. Box 1319, Islamabad. Phone: 23500 - 25350
Telex : 5775 FREND PK
OEP Licence No. 0154 RWP/80
Permission No. PE(R) 1319/80, dated 8-11-80.

Steady flow of remittances

From Our Special Correspondent

ISLAMABAD, Oct. 31: The cash remittances from overseas Pakistanis continue to flow at a steady monthly average experienced over the past fiscal year, according to informed sources here.

Over the last fiscal year the remittances came at about monthly average of 110 million dollars to 115 million dollars. Over the first three months of the current fiscal year (July-Sept.), the same trend is stated to have continued.

The bulk of remittances since 1975-76 came from the Muslim States of the Middle East. Their share last year was about 80 per cent. The remaining 20 per cent emanated from Pakistanis in the United Kingdom and other countries.

The foreign exchange remitted by Pakistanis was about 130 million dollars in 1972-73. It jumped to 578 million dollars in 1976-77, 1,166 million dollars in 1977-78 and close to 1,400 million dollars in 1978-79.

According to an IMF survey in 1978, Pakistan topped the list of four countries which earned more than one billion dollars from its overseas workers. The other three countries were India, Egypt and the Yemen Arab Republic.

One international study anticipates that remittances in 1979-80 may rise to over 1,500 million dollars.

According to one rough estimate, there are about one million Pakistanis working abroad. The annual officially registered emigrants in 1977 were 181,729 as against over 3,000 in 1971 and over 1,200 in 1972. The unofficial emigration has been known to be on a much larger scale.

HOLIDAY NOTICE

The offices of The Pakistan Times will remain closed today on account of Eid-ul-Azha. There will, therefore, be no issue of the Paper dated Nov. 2.

No tension on Indo-Pak border

ISLAMABAD, Oct. 31: Informed sources here today described as totally baseless report carried by foreign radio stations that the situation on the Indo-Pakistan border was tense.

It was authoritatively stated that there had been no noteworthy incidents or movements on either side of the Border during the past few weeks.—APP.

Eid today

By Our Staff Reporter

Eid-ul-Azha marking the supreme sacrifice offered by Hazrat Ibrahim, will be celebrated all over the country today (Thursday) with religious fervour and solemnity. Significantly this is the last Eid-ul-Azha of the 14th century of the Hijra era.

The people will pray for the Muslim unity, integrity and soudarity of the country, liberation of Occupied Kashmir and vacation of the Arab territories by the Zionists.

The Eid prayers in Rawalpindi and Islamabad will be offered at more than 150 mosques and open places. Big congregations will be held at the Markazi Eidgah, Liaquat Garden, GHQ Ground and Lal Mosque, Islamabad.

President Zia-ul-Haq, along with Federal Ministers present in the Capital, will offer prayers at the GHQ Ground.

After the prayers, the President will receive Eid day visitors at the Presidency.

The day has been declared a closed public holiday.

Radio and TV will present special programmes while the national dailies will produce special issues, marking the occasion.

Meanwhile, there was great [illegible] rush of people [illegible] home for Eid on railway [illegible] GTS stand, Aabpara Point and General Bus Stand [illegible] Pir Wadhai. Buses [illegible] passengers [illegible] other roads.

No special train was run

(Continued on page 5, col. 7)

The Pakistan Times

wishes its readers a happy Eid

APPENDIX F

HEALTH SERVICES MUST BE IMPROVED

KARACHI, Oct. 28: The Sind Health Secretary, Brig. (Retd) Shaikh Mahboob Sadiq, today emphasised the need for formulating a workable scientific statistical plan for development and improvement of health services at all levels.

He was presiding over a 5-day workshop on "development of health statistical information system for management of health services", organised by the Sind Health Department in collaboration with the Federal Health and Social Welfare Division and WHO at Sukkur.

The Secretary Health said the workshop was a part of the Government efforts to achieve higher standard of heath for the people. This would also provide an opportunity to review the existing health information system, he added.

Brig. Siddiq said designing, management, control and usage of information was of prime interest to health planners and administrators.

He pointed out that rational planning was not possible either at central or at periphery without adequate statistical information. At times an information required for a particular purpose was not available due to lack of co-ordination between health planners, managers of information system and producers of basic data.

The health secretary said basic health facilities could only be ensured to masses with the help of an efficient management of health services at all levels.

He expressed the hope that workshop will achieve the goal of developing a statistical system in the province which could produce relevant, specific, precise and reliable information at the right time.

Besides, the Federal and Sind Government officers, the workshop was also attended by Dr. Skrinjar, Chief of Development of Statistics WHO's Headquarters at Geneva. - APP

The Pakistan Times, Thursday, November 6, 1980—

HYDERABAD LETTER

Rs. 12.9m for women's vocational centres

From: MEHBOOB ALAM HAFIZ

HYDERABAD, Nov. 4: The Government of Sind is understood to have earmarked a sum of Rs. 12.9 million for establishing five vocational training centres for women in Sind. The decision has been widely acclaimed as it is a thoughtful step for improving the lot of the poor women in the interior, where owing to lack of such institutions, condition of the womenfolk has been deplorable.

It is felt that such vocational centres if established in the Province, it would go a long way to provide livelihood to poor and illiterate women.

The decision would also serve as a safeguard for preserving the old art, handicrafts and embroideries etc. which is the proud cultural heritage of Sind. At present things like "rillies" (Sindhi caps) Guj and other products, characteristic to Sind were being purchased by clever traders at meagre prices and sold in urban sector at exorbitant rates. Since these products were extremely popular in foreign lands they fetch much better price there because the fastidious customers of the West who were now sick of machine made things, go crazy for hand-made things. Handicraft centres if well-organised could also boost our exports.

Government's attention has specially been drawn to the need for such institutions in Thar and Kohistan areas of Sind as products in these areas catch the eye of foreigners easily.

It is, therefore, felt that in these two areas such centres would not only provide livelihood to the destitute women but would also afford protection to the glorious art of Dadu and Tharparkar Districts.

MAINTENANCE OF SIND RELICS: Improper and inadequate maintenance of historical places and monuments in Sind has become [illegible] their original shape later.

The Archaeological Department is understood to be short of funds and, therefore, a few monuments were being maintained like the Shah Jehan Mosque at Thatta, but others were virtually being neglected. These relieve had representative character in the sense that they are the living symbols of pristine glory of Muslim rule in Sind. Their dilapidation would cause such immense loss that could not be measured in terms of money.

Even in the city of Hyderabad, places like Mirs' Tombs, the Tomb of Ghulam Shah Kalhora and the Pucca Fort are not in proper order and efforts of Archaeological Deptt. to maintain them leave much to be desired. Ghulam Shah Kalhora, was a well known ruler of Kalhora Dynasty, and also the founder of the city of Hyderabad. His tomb was not only a historical place but also a shrine where people throng to offer Fateha and in its large courtyard Eid prayers are held. It is hoped the authorities of Archeological Deptt. would find funds to renovate these and other moments before it is too late.

People in Sanghar have expressed grave concern over the inadequate attention paid by the authorities to the loss sustained by the people in the District, where cyclonic winds a few days back caused tremendous damage to the crops and property.

It is reported that 90 per cent of the cotton crop and 80 per cent of sugercane crop have been completely damaged due to the cyclone and in Sanghar City itself damage to property has been considerable. It is old that the Provincial Government has taken no notice of such colossal loss in Sanghar District. The Deputy Commissioner at his own level [illegible]

اَلْمُلْكُ يَبْقَى مَعَ الْكُفْرِ وَلَا يَبْقَى مَعَ الظُّلْمِ

An un-Islamic government may last awhile, but tyranny cannot endure.—Hazrat Ali

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WORDS OF WISDOM

"THE strong believer is better and dearer to God than the weak believer. In all that is good be eager for what benefits you, seek help in God, and do not be too weak to do so."—HOLY PROPHET

Women's Conference: sound proposals

THE plenary session of the four-day Women's Conference which concluded on Friday has put forward a number of proposals aimed at protecting the rights of the fair sex and calling for the elimination of un-Islamic and corrupt practices which had relegated women to an unequal and subservient status in the family set up. Such practices had proliferated primarily because the Muslims of the sub-continent had deviated from the clear-cut path charted for its followers by Islam. Islam had conferred upon women a status of equality which was to be by no means inferior to that of men. It was male chauvinism which had detracted from the importance given to woman in Muslim society. Austerity which was a corner-stone of the Islamic socio-economic order had given place to ostentation with all its attendant ills. The demand for excessive dowry by the grooms' side and the provision of glamorous trousseaux for the brides had promoted corruption and ruined many a family. The Women's Conference has, therefore, called for the enactment of laws to counter the prevalent evils and to ensure that women's natural rights are not trampled upon.

Speaking at the concluding session of the Conference, some speakers rightly observed that women can play a crucial role in doing away with unfair and corrupt practices. Extolling the virtues of simple living, they denounced women's penchant for expensive trappings to adorn themselves and their homes in the rat race to outshine one another. If they were to abandon this propensity, the scale of corruption now rampant could easily be brought under control. Women as mothers are responsible for the upbringing and early education of their offsprings and they could give a lead to the family and improve the tone and character of the entire society.

A large number of comprehensive recommendations, prepared after various group discussions, were presented in the plenary session. The Conference stressed that society could be purged of its un-Islamic customs through social development and education of men and women on the right lines. It called for increased financial allocations for education, health and general services for women and recommended that primary education be made compulsory with religious instruction starting right from the primary level. The need for child-care, family-planning and establishment of community development centres was stressed. If adequate training in the fields of education, health, agriculture and industry was imparted to women, they could join the work force and render significant service to the country. Another recommendation put forward at the plenary session called for the setting up of a commission on the status of women.

The recommendations framed by the five groups, which had held group discussions earlier, called for the establishment of an increased number of family courts to devise the mechanism and frame the methodology for solving the problems faced by women in the country. The need for this measure was felt to ensure expeditious disposal of cases pertaining to marriage, divorce and other allied matters. These issues have so far been a perennial source of disputes between parties and have invariably led to avoidable acrimony, estrangement and even open hostility between the contending sides. The proposed family courts can, if properly administered, pronounce fair and equitable verdicts, and minimise, if not altogether eliminate, social disharmony. The jurisdiction of these courts should be restricted exclusively to family matters so that their proceedings are not unduly disrupted.

The Conference also underlined the need for women to acquire scientific and technological knowledge at all levels to be able to make significant contributions to the nation's development efforts. It was suggested that the relevant Quranic verses, which dwell on nature and prognosticate scientific discoveries, should be selected and projected to the students of science. That should enable them to have a better understanding not only of their subjects of study but also help them perceive the broad spectrum of numerous branches of learning which the Holy Book embraces. If the message of the Conference reaches in its totality to womenfolk throughout the country and is grasped and assimilated by the recipients, the object of this laudable four-day exercise will have been fulfilled.

6

Rs. 270-m. for health in A.K.

MUZAFFARABAD, Nov. 16: Azad Kashmir government has undertaken a gigantic programme worth Rs. 270 million to provide health cover and medical facilities to the people in the rural and urban areas.

According to the officials sources, the programme, being taken in hand with UNICEF assistance will make available modern health coverage to the maximum number of people of Azad Kashmir.

At present seven hospitals, six rural health centres, 38 basic health units, 169 dispensaries, seven dental clinics and 13 MCH centres are working in the territory which do not meet the health requirements.—A.P.P.

The Pakistan Times

Rawalpindi, October 31, 1980.

WOMEN'S RIGHTS

The four-day National Conference of Muslim Women just concluded at Islamabad is another landmark in commemorating the advent of the 15th century Hijra, which has coincided with a remarkable movement for Islamic Renaissance around the world. As President Mohammad Zia-ul-Haq pointed out in his address at the conference no such reform or renaissance can be complete without the participation of women. In Islam women have a specific role as co-workers with men, co-operating and supplementing in the fulfilment of God's divine purposes. It is a role very different from the Western concept of "women's liberation", where women must struggle to wrest their rights from men. As the President emphasised, it was Islam that in its code of life was the first to give woman a personal identity and status as a person and an individual in her own right. And the President aptly recalled how in the Quran, men and women are repeatedly mentioned separately and side by side.

During the course of his address, the President made a significant proposal—the need for establishing a high-powered body for formulating policy for promoting the progress and well-being of women in Pakistan. It has been the practice in many countries to set up a status of women commission which, among other functions, draws up overall policy suggestions pertaining to women's advancement. It also gathers extensive data pertaining to women. E perience has shown th such a commission sho have an authoritative ther than an adviso position; that in bei high-powered, it shou comprise knowledgeal persons from all secto of society deeply conce ed with the subject; a that while men shou also be members, wom should predominate. listing seven questions f consideration of the co ference, the President h already chalked out a fi viable agenda for the p posed commission: W men's part in establishi an Islamic society in Pa istan; women's obligatio and rights in such a ciety; doing away with Islamic customs and t ditions; the administrati structure best suited enable women to play effective role in natio reconstruction; steps f giving women their d place and importance education, health a general services; establi ing special educational stitutions for women's ligious education at levels; and the active p ticipation of women eradicating ignorance, verty and disease. Ma good ideas and suggestio have emerged from t four-day conference. will now be the task of t Women's Dirision to gi concrete shape to the va ous proposals and su gestions and to give fi and practical direction the institution of mean es for the advanceme of women in Pakistan the light of the rights a responsibilities given the long ago by divine law,

MASS IMMUNISATION

Measles has been regarded as an inevitable childhood disease, something to be got over in infancy and forgotten thereafter. But medical science now traces many life-time handicaps such as deafness to the early bout with measles, especially among malnourished children. The Lahore Municipal Corporation's resolve to protect children between the ages of seven months and two years is therefore a cause that deserves all support. A campaign, launched the other day and inaugurated by the city Mayor, was started by vaccinating 500 infants in a congested locality of Lahore. It proposes to reach 12,000 children every month and eventually immunise them against the other dangerous infectious and communicable diseases, namely, polio, whooping cough, tetanus, diptheria and tuberculosis. Given Pakistan's limited resources and inadequate health services infrastructure a campaign of these dimensions calls for sustained financial and logistical endeavour. The assistance of WHO is a welcome input but the success of the programme will depend on the efficiency and honesty of our own workers. The Children's Immunisation Society started by a group of paediatricians in 1975 is already in existence. The organisation which runs several centres has been working steadily, if not spectacularly, to create awareness among the masses of the importance of protecting the new-born against fatal and crippling diseases during the first few months of life by availing of the inoculations developed by modern science. The doses are not costly: for about Rs. 10 a child can be protected against the diseases mentioned except for measles which is more expensive at about Rs. 40. A small sum as a price for preventable tragedy or death, but one which our social structure apparently finds difficult to generate.

According to the Immunisation Society's estimates, about 80,000 babies are born in Lahore annually and of these hardly a quarter are immunised. If this is the picture in a large urban centre where information and services are reachable, what of the 25 lakh infants who arrive in the country each year? With one of the world's highest birth rates we also have a high infant mortality rate. Public consciousness must be aroused to a point where parents demand protection for their children. If, however, the people remain ignorant of the hazards posed by childhood diseases it is for the authorities and agencies concerned to reach out to them. The LMC campaign is a venture in this direction. It must depute its staff to go from door to door, if necessary, to bring all the children within the fold of immunisation. Wide publicity coupled with an effective delivery system should be the immediate goal of all the organisations, public and private, which must coordinate their efforts to make the people realise that prevention is better than cure.

The Pakistan Times

Rawalpindi, November 8, 1980.

Rs. 56m drinking water scheme in Sind

HYDERABAD, Nov. 17: The Government of Sind has chalked out a comprehensive scheme to provide drinking water facilities to the residents of hilly areas of the province, it was learned here today.

The phased scheme will be completed at an estimated cost of Rs. 56 million.

According to programme, the Government of Sind would complete 31 schemes of installing tubewells, digging of wells and the construction of ponds to preserve the rain water to be used for drinking purposes.

It was further learnt that detailed survey-work will be undertaken in April, 1981.

After the completion of the scheme about one lakh people of hilly areas of the province will be [illegible]

An anti-Islamic government may last awhile, but tyranny cannot endure.—Hazrat Ali

THE MUSLIM

The Pakistan Times

Rawalpindi, November 12, 1968.

Medical care in rural areas

DR. EICE MOHAMMAD

PAKISTAN has basically an agriculture-based economy. In spite of breakthrough in the industrial sector, our country's foreign exchange earnings remain mainly dependent on agricultural produce. About 80 per cent of the population lives in rural areas and provides us with labourers, soldiers and peasants. This shows how important is the health of our rural population. So major emphasis on any health planning should be on the maximisation of village welfare.

There is no denying the fact that the state of medicare in rural areas is extremely poor and men and women continue to die of minor illnesses like malaria, dysentry and other diarrhoeal diseases.

A few months back, I had a chance to visit a village in Thal. Having come to know that I was a doctor, many residents came for consultation. A large number of people having diseases of the eyes, rheumatism, anaemia and dysentry from many years gathered around me. This particular village was at a depth of five miles from the main road and there were villages at greater depths. The nearest dispensary in Kareve Town had no doctor. For once I could visualise the misery of these people who are the backbone of our country.

One should try to analyse the causes of this desperate situation and find remedies in the national interest. According to the United Nations Charter, medical treatment is the right of every citizen and it is the duty of the State to provide a comprehensive medical cover to its citizens. In spite of so many medical colleges, the position in rural areas has not changed and the government and public constantly complain that doctors are not willing to serve in the countryside.

Our medical colleges are all situated in the cities. Medical students become habituated to modern city life. During their stay in medical colleges they do not have even a glimpse of rural life. Psychologically it be comes impossible for them to work in villages when electricity and other recreational facilities are not available. Even those students coming from village areas do not go back to their own areas.

At the moment, only those doctors are sent to rural areas who have no social or official links. Sons and daughters of politicians, high-ranking civil officers and social elites are not sent even to a district headquarters hospital, what to say of sending them to rural areas. This creates a feeling of discrimination and class distinction.

At the moment, those doctors who work in rural areas are ignored in respect of admissions to post-graduate courses and appointments to posts of Registrars and Demonstrators. They become junior to their own class-fellows in higher studies and postings. This paradoxical situation discourages doctors to go to rural areas. They feel that by going to a rural area they will be destroying their career.

No regular system exists to ensure that a doctor who has served in rural areas gets preference in the matter of appointments to large cities. A fresh young medical graduate can easily serve in rural areas for two years, but when he gets married, then obviously he must be desirous to move to larger cities for education of his children.

Cases

Our medical graduates are trained in hospitals where relatively sophisticated methods of treatment and laboratory facilities are available. They become mentally dependent and feel handicapped while treating patients in rural areas without diagnostic aids.

Young and fresh medical graduates want to serve with humanity in a selfless manner. They are honest, but in peripheral areas they are subjected to great threats and blackmail at the hands of landlords, local village politicians and even the police. This is more so in medico-legal cases. The doctors want to remain honest and want to give correct reports, but are offered bribes and subjected to pressures. There have been many instances where doctors and lady doctors have been abducted and even the houses of doctors are subjected to theft. These instances are sufficient to dissuade doctors from service in rural areas.

In foreign countries, there is a considerable difference in the pay of doctors working in rural areas. But in Pakistan, this difference is not more than Rs. 150. The difference should be considerable; the rural area allowance should at least be 20 per cent of the basic pay. Even the designation of an area being rural is sometimes unrealistic.

Shortage

Only a few places in Punjab have been declared rural with the result that there is virtually no rural area allowance benefit for the doctors.

Drugs are always, in short supply in our hospitals. The situation is more acute in rural areas. Patients hardly get sufficient drugs and have to buy most of the medicines from the market. Budgets are very meagre. Even for this shortage, doctors are blamed as the public thinks that the doctor incharge is responsible for the situation.

In most rural dispensaries no proper accommodation is available. This is obviously very distressing for a doctor who has become habituated to city life. He also takes notice of the fact that even a patwari or postmaster does not live in the same area. No officer, like SDO, Magistrate, Assistant Commissioner, Tehsildar, Naib-Tehsildar lives in the rural area. It is only the doctor who has to work in remote areas and if suitable accommodation is not available, a doctor's life becomes miserable.

A young medical graduate working in a rural area faces a very peculiar situation. The para-medical staff and even some of the senior staff demand monetary gratification from him. If he does not do this, he is subjected to a lot of harassment and frequent transfers from one dispensary to the other.

Our medical education has not have a rural bias. The health department has yet to devise a uniform discipline and methodism for providing medical cover to rural areas. In the past, the persons at the helm of affairs miserably failed to evolve a system because they themselves indulged in nepotism. Moreover, none of the higher officials or their relatives have to suffer from the shortcomings of the medical care system because they and their relatives can get every medicine and specialism of their choice.

During the five years of MBBS course, emphasis should be laid on mentally preparing the students for working in conditions prevailing in rural areas. In the 4th and final years, every student should spend two months in a rural hospital. Medical students should be attached to the Medical Officer of the hospital concerned. Students should take part in immunisation programmes in rural areas, teach the villagers about hygienic principles and learn the intricacies of medico-legal work. This will give our students an insight into the working conditions in rural areas.

A system should be evolved under which every fresh medical graduate should work for two years in a rural hospital, after doing one-year house job or internship. After completion of two years in rural areas, a doctor should be given preference which deciding about postings in larger cities and towns and appointments to the posts of Registrars, Demonstrators and Medical Officers in teaching hospitals. Doctors who have worked in rural areas should be given preference in admission to courses for higher education.

The budget for medicines must be increased and some minimal diagnostic facilities should also be provided in rural dispensaries. Severe punishment should be given to those who interfere with the duties of doctors in peripheral areas, especially in medico-legal cases. Senior doctors like District Health Officers, Medical Superintendents and Deputy Directors should encourage and patronise doctors in rural areas and take keen interest in promoting their careers and defending them against blackmail.

APPENDIX G

الملك يبقى مع الكفر ولا يبقى مع الظلم

An un-Islamic government may last awhile, but tyranny cannot endure.—Hazrat Ali

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WFP food aid for Pakistan

ISLAMABAD, Nov. 13: Pakistan will receive dollar 29.14 million worth of food aid from the World Food Programme as assistance for supplimentary feeding of pre-school children and pregnant and nursing mothers, it was officially stated here today.

The food aid was approved for two years and three months by the Committee on Food Aid at Rome, recently, according to information received here today.

The aid, which will include wheat, dried skim milk and edible oil, will be distributed as dry ration through some 1,500 health centres to a maximum of 120,000 mothers and 240,000 pre-school children.

The WFP-assisted supplementary feeding programme is intended to reduce incidence of protein-calorie malnutrition among vulnerable group.

Promote knowledge and adoption of better feeding practices through nutrition education.

Encourage increased attendance at health centres with a consequent health improvement of the beneficiaries.

Under the present project on nutrition, which commenced in July 1976, WFP has been providing food to assist the Government's supplementary feeding programme. As of Sept. 1980, food was being distributed through 1,075 health centres to about 163,000 mothers and children. This project is expected to terminate in April 1981. —APP

APPENDIX H

THE MUSLIM Saturday, November 8, 1980

$ 30m U.N. body offer for Population Plan

BY SIKANDER HAYAT

ISLAMABAD, Nov. 7: The United Nations Fund for Population Activities has offered to commit upto 30 million dollars to Pakistan's National Population Planning Policy in the next five years, it was learnt here today.

The full range of UNFPA assistance will, however, be defined after the finalisation of the plan.

The Population Plan, which purportedly aims at "welfare of the people through the uplift of women, proper medical care for the mother and the child and creating consciousness of th role of motherhood", was approved by the Cabinet last Monday.

The U.N. providonally committed 4.5 million dollars for 1980 and 81.

The total U.N. development and humanitarian assistance for Pakistan for this year totals a little over 142 million dollars, including 85 million for relief for the Afghan refugees.

The U.N. aid is channelled through its different agencies including UNDP, ILO, WHO, WFP, UNICEF and UNFPA.

The assistance for Afghan refugees in Pakistan, who now total over 1.1 million, is coordinated by the office of the United Nations High Commissioner for Refugees which has drawn up a programme totalling 52.3 million for non-basic food items for this year.

The UNDP had earmarked a total of 52.5 million dollars for five year period – 1977 to 1981 – making this the fourth largest UNDP programme in the world.

For 1980, the UNDP is financing a total of 84 ongoing projects worth over 14 million dollars in five major sectors; agriculture (24 projects), industry (13), human resources (28), infrastructure (14) and natural resources (5).

For the next 1982-86 cycle, the UNDP allocation is expected to increase to about 118 million dollars.

The ILO is executing about 20 per cent of the total UNDP financed projects, mainly in the field of vocational training and skills development.

It is also implementing a Swiss Trust Fund to promote craft training for women and a mines rescue and safety project funded by Norway.

The UNICEF assistance has increased from 8.5 million dollars last year to 13.6 million dollars, to finance rural health services, rural water supply schemes, nutrition and non-formal education.

The World Food Programme, apart from its emergency contribution exceeding 33 million dollars to the Afghan refugees programme, expects to bring into Pakistan food items worth 22 million in 1980 and 26 million next year.

APPENDIX I

Excerpt from UNICEF'S Program Plan for 1982-86

ARTICLE III

Objectives

Strategic Objectives

3.0 In order to reduce the problems referred to in Article II and to strengthen and expand services for children and mothers, impact objectives for the UNICEF assisted program during the period 1982 - 1986 were established at the provincial level. These can be summarized nationally as follows:

3.1 To reduce infant mortality by 20 percent from its present estimated level of 105 or 115 per thousand.

3.2 To reduce the maternal mortality rate from 0 to 2 per thousand (estimated) to 4 to 6 per thousand.

3.3 To reduce mortality resulting from diarrhoea dysenteries by 50 percent in the age group 0-1 and by 30 percent in the age group 1 to 5.

3.4 To reduce the incidence of diarrhoea and dysenteries by 30 percent in the age group 0-5 from the present estimated 5.0 episode per year.

3.5 To reduce mortality due to communicable diseases by 30 percent in the age group 0-5.

3.6 To reduce incidence of communicable diseases among children 0-14 by 60 percent from the present level of 30 percent of all morbidity.

3.7 To reduce mortality due to Protein Energy Malnutrition by 25 percent in children 0-1, 0-5 and 5-12.

3.8 To reduce incidence of anaemia among teenage girls and pregnant and lactating mothers by 10 percent.

3.9 To reduce the level of disabilities among children (0-14) by 10 percent.

3.10 To reduce mortality due to respiratory infections by 29 percent among children 0-14.

Excerpt from UNICEF'S Program Plan for 1982-86 (Continued)

3.11 To double the current estimated literacy rate of women of 4.7 percent and to raise the literacy rate of men by one third from the current estimated level of 15 to 22 percent.

3.12 To increase primary school enrollment among the age group 5 to 9 by 20 percent from the present level of 31 percent.

3.13 To reduce the primary school dropout rate by 28 percent.

3.14 To increase income generating capacities of women by 25 percent.

Service Level Objectives

4.0 In order to achieve the impact objectives just described, the program aims at meeting the following service coverage objectives during the period 1982-1986.

4.1 Primary Health Care

Manpower Development

- Train and equip 26,650 dais or traditional birth attendants.
- Train and equip 18,100 community health workers.
- Train 24 mobile training teams.
- Train 3050 Medical technicians.
- Train 40,000 primary school teachers and 5,000 agricultural extension workers in the primary health care approach.
- Conduct refresher courses for Lady Health Visitors, and other mid-level health workers.

Equiping and supplying primary health care institutions

- Equip 299 Rural Health Centers and 1349 Basic Health Units.
- Provide 78 vehicles to Rural Health Centers (NWFP).
- Provide 2300 bicycles to BHU's.

- Establish funds for transport experimental hire of (tongas) of female paramedicals (NWFP).

Drug Supply

- Provide DODS Kits. (To be phased.)

- Phase out anti TB drugs by 1985.

- Conduct workshop on local production of drugs (Punjab).

- Execute feasibility study on stripping, packing, transport and storage of drugs (Punjab).

Nutrition

- Service objectives for nutrition interventions in 12 villages in 3 barani districts of Punjab, and in communities selected in the consortium of Voluntary Agencies project will be determined on the basis of community self-assessment.

Immunization

- For the National network.

- Equipment coldrooms and establish cold chain.

- Establish static vaccination centers, subcenters and outreach/mobile teams.

- Train and retrain vaccinators, supervisors, medical officers, storekeepers, and drivers.

Diarrhoeal Disease Control

- Distribute 10 million packets of ORS annually.

- Train frontline health workers in preparation and use of ORS.

Health Education/Communication

- Train 46 health educators (Baluchistan, AJK).

- Train 1600 government sectoral workers (Baluchistan)
  3042 dais (Sind, Punjab)
  24 CHVs (Punjab)
  455 LHVs (Sind)
  9000 registered medical practitioners (Sind)
  3012 primary school teachers (Sind, Punjab)

12 extension workers (Punjab)
54 Social Welfare Committees (Sind) plus religious leaders, landlords and others in the content and the techniques of communication simple health messages.

- Develop test and reproduce six health education messages (NWFP).

- Equip 17 District level health education units (NWFP, AJK).

4.2 Rural Water Supply and Sanitation

- Train 140 drillers (Baluchistan & Punjab)
  150 assistant drillers
  190 assistant and sub-assistant engineers
  2500 pipefitters/jointers
  250 water supply system mechanics
  5940 village handpump/water system operators/caretakers
  7 Environmental engineers (Baluchistan, Punjab)
  32 Sanitarian (Baluchistan)
  Plus local councillors.

- Provide potable water to 640 communities (Baluchistan) 500 (NWFP), 450 (AJK).

- Provide 18200 handpumps and 500 tubewells (Punjab)

- Community construction of sanitary latrines in 640 villages (Baluchistan).

- Construct 10 demonstration latrines in 500 villages (Punjab).

- Village garbage disposal 1140 villages (Baluchistan and Punjab).

- Introduction of boiled water 100 villages (Punjab).

- Establishment of water quality control units (NWFP, AJK).

4.3 Education

<u>Improvement of School Facilities</u>

- Repair 20,000 primary schools, with emphasis on rural girls primary schools.

- Supply water to 10,000 primary schools (Punjab).

Improvement of the Quality of Teaching Learning

- Design, produce, distribute reading/teaching aids to primary and mohalla schools; specific objectives nationally to be developed. (14,000 NWFP.)

- Training or inservice training for:
  120 master trainers (AJK)
  90 teacher trainers (AJK)
  50,000 primary school teachers (AJK, NWFP, Punjab)
  2,000 mohalla school teachers.

- Establish 14 district education centers (NWFP).
  350 decentralized training centers (AJK)

Non-Formal Education

- Equip 229 non-formal schools (AJK).

- Equip mohalla trainers (AJK)
  456 non-formal teachers (AJK)
  Mohalla school teachers (Sind)
  Training of staff (NWFP)

- Develop and test approaches for non-formal education (NWFP).

- Open 53 vocational technical schools for girls at tebsil level and 250 dehi mazdoor workshops at marhaz level (Punjab).

- Develop easy reading material for out of school youth (Punjab).

- Train 1300 village women in provision of basic functional education to girls (Baluchistan).

Income Generating Skills for Girls and Women

- Conduct survey on problems of women (Punjab).

- Set up 400 skill development centers (Punjab).

- Set up 500 income generating activity centers with emphasis on deprived districts (Punjab).

- Introduce skills training and income generating work for girls in classes IV & V in 150 selected schools through the province (Sind).

- Organize and implement action research to determine opportunities for income generation for purdah observing women (NWFP, AJK).

4.4 Special Programs

Disabilities (Punjab)

- Carry out survey of disabilities in two Districts in 1982; extend to 50 percent of districts.

Slum Improvement

- Specific service objectives for Sind and Punjab to be developed on the basis of community determined priorities.

4.5 Program Support

Institutionalization of Community Participation

Training:

Baluchistan

BIAD - Short term experience based, orientation/information in techniques of community organization and planning.

- 352 Community motivators
- 170 Local Government Officials
- 1760 Union Councillors
- 600 Village Headmen
- 18,000 village level sectoral committee members.

Punjab

- 200 Marakaz Staff
- 600 functionaries of sectoral departments (1982-83)
- 1000 community members
- All councillors in 5 districts in problem identification, prioritization, planning, execution.

Mandra Markaz Train technically and in community mobilization:

- 16 Master trainers
- 12 Councillors
- 36 Managers
- 210 water supply caretakers
- 212 dais, health, agriculture and nutrition workers.

Sind

- 82 courses of varying length and complexity in community mobilization and planning for social welfare officers, auxiliary workers, field officers and supervisors, child care workers, social welfare committees.

- Provision of 29 vehicles to Social Welfare Department to facilitate training.

Strengthening Government Capacity for Information Collection and Planning.

National Service Objectives to be set.

Punjab

- Start data bank in one district in 1982 and extend to other districts in 1983.

- Prepare monitoring and evaluation module.

- Inservice training for 3500 officers in planning and implementation.

- Seminar and workshop on area development planning in 1982.

- Set up planning cell for area development in one district, and a regional planning cell in the provincial P&D.

- Initiate health services research.

NWFP

- Deploy consultant to analyze health statistics.

Sind

- Support social planning advisor in the P&D and whose objective is to raise implementation rate of social service projects to 80 percent.

Special Assistance to Women's Programs

- 500 literacy centers for women.

- 100 income generating centers.

- 500 applied nutrition centers.

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PERSONS INTERVIEWED

Present and Former Government of Pakistan - Executive Branch

General Mohammed Zia-ul-Haq, President of Pakistan

Ghulam Ishaq Khan, Minister of Finance

Rear-Admiral M.F. Janjua, Minister of Food, Agriculture and Cooperatives

Ejaz A. Naik, Secretary, Economic Affairs Division and Chairman, Planning Division

A. Sami Qureshi, Secretary, Ministry Food and Agriculture

Iqbal Saeed, Secretary of Industries

Dr. Attiya Inayatullah, Advisor to the President on Population

Rahatullah Khan, Joint Secretary, Economic Affairs Division

M. Mohsin, Joint Secretary, Ministry Food and Agriculture

S. Murtaza, Deputy Secretary, Ministry Food and Agriculture

Ijlal Haider Zaidi, Secretary, Establishment Division

U.D. Khan, Deputy Secretary, Economic Affairs Division

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Mohammed Ahmad Aghai, Director for Planning and Coordination, Population and Planning Division

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Mr. Khalil Siddiqi, Director, Registration and Statistics Population Division

Dr. A. Razzaque Rukanuddin, Chief, Population and Development Section Pakistan Institute of Development Economics

Begum Surraya Jabean, Chief, Planning and Programs FPAP, Pakistan

Miss Tahira Abdullah, Assistant Director, FPAP, Pakistan

Justice A.M.H. Kango, Director, Water Management, Ministry of Food and Agriculture

Tanzil-ur-Rehman, Chairman, Council of Islamic Ideology

Justice Syed A. Nusrat, Secretary, Ministry of Law and Parliamentary Affairs

Dr. Amir Muhammed, Chairman, Pakistan Agricultural Research Council

Malik Khuda Bakhsh Bucha, former Minister of Agriculture

Dr. Mohammed Suliman, Section Officer, Economic Affairs Division

Shamshad Khan, Section Officer, Economic Affairs Division

S.M. Jalaluddin, Section Officer, Economic Affairs Division

Courts of Pakistan

Justice A. Anwarul-Haq, Chief Justice, Supreme Court of Pakistan

Justice Durrab, Patel, Judge, Supreme Court of Pakistan

Justice Muhammad Haleem, Judge, Supreme Court of Pakistan

Justice Fakharuddin G. Ebrahim, Judge, Supreme Court of Pakistan

Justice Mohammad Afzal Zullah, Judge, Supreme Court of Pakistan

Justice Abdul Haji Qureshi, Chief Justice, Sind High Court, Karachi

Federal Sharriat Court

Salahuddin Ahmad, Senior Judge Supreme Court (Ret.) Chairman, Federal Sharriate Court

Justice Agha Ali Haider, Member Federal Sharriat Court

Justice Aftab Hussain, Senior Judge, Member Federal Sharriat Court

Justice Karimullah Khan, Senior Judge, Member Federal Sharriat Court

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Ghulam Quadir, Chief External Assistance, Planning and Development Department, Punjab Province

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Brig. [illegible]
Pun[illegible]

Bri[illegible]

Brig. [illegible] ration, Punjab Province

Capt. [illegible]
Provi[illegible]

[illegible]

Akhter Rana [illegible] Punjab Province

Pakistan Ins[illegible]

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Pakistan, [illegible]

Moham[illegible] portion of
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Dr. Nasi[illegible] [illegible]
Ghee[illegible]

Br[illegible] Officer, Lahore
[illegible] istan)

[illegible] Project, Lahore

Dr. David [illegible] Rai[illegible] [illegible] ber, Lahore

Dr. Sultan Abd[illegible] [illegible] P.H.[illegible]
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Mohammad Salim Mirza, Plant Virologist, Agriculture Research Institute, Faisalabad

Dilshad Mohammad Khan, Agricultural Chemist, (BIO), Agriculture Research Institute, Faisalabad

Dr. Riaz Ahmad Khan, Acting Chairman, Pakistan Agricultural Research Council

Dr. C.M. Anwar Khan, Member, Plant Services, Pakistan Agricultural Research Council

Majeed Akhtar, Member (finance)

Mian Mumtaz Ali Khan, Agriculture Development Commissioner

M.A.K. Beg, Director PARD (Pakistan Academy for Rural Development)

Suleman Ghani, Deputy Director, Provincial Services Academy

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S.M. Haider, Deputy Director Training, PARD

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Minhajud-Din Khan, Rural Socialist, PARD

Mohd Azim, Public Administration, PARD

H.M. Naqvi, Agricultural Extension, PARD

Imdad Ali Khan, Social Psychology, PARD

Asif Ashraf, Rural Economics, PARD

Mrs. Almas Anwar Khwaja, Education, PARD

Feroz Shah, Administration Specialist, PARD

Harold Johathan, Librarian, PARD

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Farooq Nazir Haroon, Planning Commissioner, Islamabad Division, Islamabad

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Dr. Hafiz Abdul Qayyum, Professor, Entomology, Faisalabad Agriculture University

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Altaf Hussain, Assistant Professor, Soil Science, Faisalabad Agriculture University

Mohammad Aslam, Professor, Plant Breeding and Genetics, Faisalabad Agriculture University

Mohammad Asghar Mian, Assistant Professor, Department of Plant Breeding and Genetics, Faisalabad Agriculture University

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Gulzar Bano, Women's Division

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Mrs. Rukhsana Hamidi*, Subject Specialist (Pop. Ed.), Population Division

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Mr. Sattar Chandhry (M.P.H.)

Mrs. Kaniz Manla, Nursing Council, Pakistan Medical Council

Dr. Abdul Aziz, Director General Health

International Institutions in Pakistan

Dr. Tyler Biggs, Ford Foundation Project Specialist

Dr. Malik Ashraf, Agricultural Economist, Ford Foundation

Dr. Paul Popiel, Economist, World Bank

Dr. Tariq Durrani, World Bank

Mr. Manzood Hussain, Pakistan Programs, UNFPA, Islamabad

United States Embassy

Ambassador Arthur Hummel, U.S. Ambassador to Pakistan

Barrington King, Deputy Chief of Mission

Alexander Rattray, Economic Counselor

Ronald Lorton, Political Officer

C.M. Clendene, Agricultural Attache

John S. Brimn, Consul-General, Lahore

John Eisenbraun, Political Officer, American Consulate, Lahore

United States Agency for International Development

Bryant George, Director, USAID (Acting)

Leslie Dean, Program Officer

Ronald Curtis, Agriculture Officer

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*Her husband Mr. Hamidi is Secretary of Information

Moaizuddin Sayyed, Program Office

Mohammad Wasey, Population Office

Zahid Zaheer, USAID/Training

Zafar-ul-Hassan Khan, Office of the Controller

Khalil-ur-Rahman, Office of the Controller

Anwar-ul-Hussain, Program

Masood Siddiqul, Program

Iftikhar A. Khan, Program

Shaukat Ali Chughtai, USAID, Lahore

Mr. John Eaton, University of Hawaii MEDEX Team (Management), Pakistan

Dr. Robert Mack, University of Hawaii MEDEX Team (Medical Training), Pakistan

Mr. Richard Johnson, University of Hawaii MEDEX Team (Community Health), Pakistan

Mr. Joe Loudis, U.S. AID, Washington

Persons Interviewed in Third Countries

Malasia

Aftab Ahmad Khan, Former Secretary, Economic Affairs Division, Ministry Finance, Pakistan

Philippine Islands

Dr. John Cool, Ford Foundation Representative, Manila, Philippines

Steve Sinding, Chief, Health, Population and Nutrition, USAID-Philippines, Manila

Persons Interviewed in the United States

Dr. Walter P. Falcon, Director, Food Research Institute, Stanford University, California

Gus Papanek, Chairman, Department of Economics, Boston University

Agency for International Development

Joseph C. Wheeler, Deputy Administrator

John Sullivan, Assistant Administrator/Asia Bureau

Donald MacDonald, Assistant Administrator for Administration

Arthur Handly, Director, Office of Pakistan, Nepal Sri Lanka, (PNS) Asia Bureau

William McIntyre, AID/W

Dr. Gilbert Corey, DSB/Ag AID (CSU Researcher in Pakistan 1970-75)

David Lundberg, Asia Bureau/Ag.

Robert Layton, U.S. AID Washington

William Johnson, U.S. AID Washington

William McIntyre, U.S. AID Washington

Arthur Lezin, AID/W

Maurice Albertson, Professor, Colorado State University

International Institutions

World Bank

Ernest Stern, Executive Vice President

Para Suriyaarachchi

Tariq Husain

Andrew Elek

Richard Clements

Javed Burki

UNFPA

Dr. Josef Van Arendonk, Director, Asia and Pacific Region, USFPA, New York

Sultan Halim, Former Assistant Commissioner, Muriel Humphrey Fellow, International Development Studies Program, American University