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REPORT AND RECOMMENDATION

OF THE

PRESIDENT OF THE

INTERNATIONAL DEVELOPMENT ASSOCIATION

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED CREDIT

IN AN AMOUNT OF SDR 147.6 MILLION (US$150 MILLION EQUIVALENT)

TO THE ISLAMIC REPUBLIC OF PAKISTAN

FOR A

LEFT BANK OUTFALL DRAIN STAGE I PROJECT

November 13, 1984

## CURRENCY EQUIVALENTS

Currency Unit = Pakistan Rupee (Rs)
US$1.00 = Rs 13.50
Rs 1.00 = US$ 0.07

## FISCAL YEAR

July 1 - June 30

## ABBREVIATIONS

| | | |
|---|---|---|
| ADB | - | Asian Development Bank |
| ADBP | - | Agricultural Development Bank of Pakistan |
| ADP | - | Annual Development Program |
| CIDA | - | Canadian International Development Agency |
| CWMP | - | Command Water Management Project |
| DPOD | - | Dhoro Puran Outfall Drain |
| ECNEC | - | Executive Committee of the National Economic Council |
| GOP | - | Government of Pakistan |
| GOSind | - | Government of Sind |
| ha | - | hectare |
| ICB | - | International Competitive Bidding |
| IDA | - | International Development Association |
| IMO | - | Integrated Management Organization |
| km | - | kilometer |
| KPOD | - | Kadhan Pateji Outfall Drain |
| m | - | meter |
| M&E | - | Monitoring and evaluation |
| mt | - | metric ton |
| ODA | - | Overseas Development Administration |
| OFWM | - | On-farm water management |
| OPEC Fund | - | Organization of Petroleum Exporting Countries Fund for Development |
| O&M | - | Operation and maintenance |
| PC-1 | - | Planning Commission Proforma No. 1 |
| PSC | - | Project Steering Committee |
| SCARP | - | Salinity Control and Reclamation Project |
| SDC | - | Swiss Development Cooperation |
| UNDP | - | United Nations Development Programme |
| WAPDA | - | Water and Power Development Authority of Pakistan |
| WUA | - | Water Users' Association |

## GLOSSARY

| | | |
|---|---|---|
| bund | - | embankment to retain water |
| command | - | area receiving irrigation water |
| dhand | - | natural depression or lake |
| watercourse | - | irrigation distribution system flowing from a canal |

# PAKISTAN

## LEFT BANK OUTFALL DRAIN STAGE I PROJECT

### CREDIT AND PROJECT SUMMARY

| | |
|---|---|
| **Borrower:** | Islamic Republic of Pakistan |
| **Beneficiary:** | Sind Province |
| **Amount:** | SDR 147.6 million<br>(US$150 million equivalent) |
| **Terms:** | Standard |
| **Relending Terms:** | From the Government of Pakistan (GOP) to the Government of Sind (GOSind) and the Water and Power Development Authority of Pakistan (WAPDA) through budgetary allocations in accordance with normal GOP procedures. |
| **Project Description** | The eight-year project would be the first stage of a major drainage program in Sind Province to reverse the deterioration of the land resource base caused by waterlogging and salinity. Integrated irrigation, drainage, and water management measures would permit increased cropping intensities and a reduction in abandoned land in an area of more than 0.5 million ha. Principal project components include: (a) completion of a 300 km outfall drain and remodelling of existing drains to dispose of saline effluent to the Arabian Sea; (b) installation of a surface and subsurface drainage network in the three subareas; (c) installation of a power distribution system to supply the drainage tubewells and drain pumps; (d) introduction of on-farm water management practices including renovation of about 920 watercourses and precision land levelling; (e) remodelling of the Nara and Jamrao Canals, as well as construction of the Chotiari Reservoir, to provide supplemental irrigation water for the project area; and (f) technical assistance for project design and implementation. About 140,000 farm families (910,000 people), of whom three-quarters are below the rural poverty level, would benefit directly. Annual foreign exchange benefits of about US$180 million would be expected from additional production of about 315,000 mt |

tons of seed cotton and 215,000 mt tons of wheat. Since the project consists of a number of integrated components, delay in completing any one part could jeopardize the viability of the total project. To minimize this risk, project expenditures have been carefully phased and adequate provision has been made for consultants to reinforce the management organization.

Estimated Costs: a/

| Item | (US$ millions) Local | Foreign | Total |
|---|---|---|---|
| Drainage Disposal System | 33.2 | 38.0 | 71.2 |
| Nawabshah Area | 32.9 | 27.7 | 60.6 |
| Sanghar Area | 39.4 | 40.0 | 79.4 |
| Mirpurkhas Area | 48.5 | 50.6 | 99.1 |
| Water Resource Development | 50.6 | 31.2 | 81.8 |
| Institutional Development | 0.9 | 8.4 | 9.3 |
| Project Information System | 1.5 | 1.5 | 3.0 |
| Total Base Cost | 207.0 | 197.4 | 404.4 |
| Physical Contingencies | 29.3 | 28.1 | 57.4 |
| Price Contingencies | 80.8 | 93.1 | 173.9 |
| Total Project Cost | 317.1 | 318.6 | 635.7 |

Financing Plan:

| | (US$ millions) Local | Foreign | Total |
|---|---|---|---|
| IDA | 50.1 | 99.9 | 150.0 |
| Asian Development Bank (ADB) | 35.1 | 86.9 | 122.0 |
| Saudi Fund for Development | 13.5 | 38.5 | 52.0 |
| Canadian International Development Agency (CIDA) | 9.5 | 28.0 | 37.5 |
| Overseas Development Administration (ODA-UK) | 4.2 | 31.4 | 35.6 |
| Swiss Development Cooperation (SDC) | 8.0 | 2.0 | 10.0 |
| OPEC Fund for Development | 0.0 | 10.0 | 10.0 |
| GOP | 196.7 | 21.9 | 218.6 |
| Total | 317.1 | 318.6 | 635.7 |

a/ Including about US$97 million in taxes and duties.

**Estimated Disbursements:**

| | (US$ millions) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| IDA FY | FY86 | FY87 | FY88 | FY89 | FY90 | FY91 | FY92 | FY93 | FY94 |
| Annual | 9.6 | 13.4 | 20.0 | 19.5 | 27.9 | 24.0 | 18.4 | 12.3 | 4.9 |
| Cumulative | 9.6 | 23.0 | 43.0 | 62.5 | 90.4 | 114.4 | 132.8 | 145.1 | 150.0 |

**Rate of Return:** 14%.

**Appraisal Report:** No. 5185-PAK, dated November 5, 1984.

**Map:** IBRD 18245

INTERNATIONAL DEVELOPMENT ASSOCIATION

# REPORT AND RECOMMENDATION OF THE PRESIDENT TO THE EXECUTIVE DIRECTORS ON A PROPOSED CREDIT TO THE ISLAMIC REPUBLIC OF PAKISTAN FOR A LEFT BANK OUTFALL DRAIN STAGE I PROJECT

1. I submit the following report and recommendation on a proposed credit of SDR 147.6 million (US$150 million equivalent) to the Islamic Republic of Pakistan on standard IDA terms to help finance a Left Bank Outfall Drain Stage I Project. Six other external agencies are expected to participate in the financing of the project in amounts and on terms as follows:

| Agency | Amount (US$ million equivalent) | Terms | |
|---|---|---|---|
| | | % Per Annum | Years/grace |
| ADB | 122.0 | 1 | 40/10 |
| Saudi Fund | 52.0 | 3 | 20/8 |
| CIDA | 37.5 | grant | - |
| ODA | 35.6 | grant | - |
| SDC | 10.0 | grant | - |
| OPEC Fund | 10.0 | 1 | 17/5 |

## PART I - THE ECONOMY 1/

2. The most recent economic report "Pakistan: Recent Economic Developments" (No. 4906-PAK, dated February 24, 1984) was distributed to the Executive Directors on March 13, 1984.

3. Economic developments during FY83 were generally favorable. GDP grew by 5.8%, with value added in agriculture rising by 4.8% and in industry by 8.3%. Continued stagnation in (fixed) investment, which declined slightly from 13.6% of GNP in FY82 to 13.4% of GNP in FY83, was among the few unfavorable events. National savings, on the other hand, rose sharply from 10.9% to an estimated 14.1% of GNP. The declining trend

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1/ Parts I and II are substantially the same as Parts I and II of the President's Report P-3831-PAK (Second Small Industries Project), dated May 25, 1984.

in the rate of inflation continued; as measured by the consumer price index, the rate of inflation slowed from 11.5% in FY82 to 5.2% in FY83.

4. There was a dramatic turnaround in the balance of payments in FY83. The current account deficit, at US$554 million (1.8% of GNP), was less than half the size of deficits in recent years. This outcome reflected three main factors: a resumption in the growth of exports following a substantial decline in FY82; a slight decline in the value of imports; and buoyant remittances from migrant workers. Exports grew by 13%, nearly regaining their FY81 level. The most striking feature of the export performance was the growth of non-traditional exports, which increased by over a third. The drop in imports reflected, inter alia, higher domestic production of oil and import-substitution in some key commodities. The incipient recovery in world trade and delinking of the exchange rate from the U.S. dollar in January 1982, with its subsequent depreciation, contributed significantly to the improved balance of payments picture. Given the favorable outcome on the current account, normal levels of net inflows of long-term capital, and net IMF purchases, Pakistan's reserves more than doubled. At the end of FY83, gross official reserves stood at US$1,911 million, the equivalent of 3.5 months' of imports of goods and non-factor services.

5. Notable progress was made in many areas during the Fifth Five-Year Plan Period (FY79-83). Real growth rates in national output (6.3%), agriculture (4.4%), industry (9.1%) and exports (9.2%), though below Plan targets, were all substantially above the rates achieved during 1970-78 and very respectable compared to the performance of other LDCs over the same period. This growth - coupled with increased inflows of migrant remittances - benefited large segments of the urban and rural population. The output of all major crops reached record levels and self-sufficiency in wheat and sugar was achieved. Encouraged by improved government policies, private investment in manufacturing expanded by 8% p.a. in real terms; this expansion was more than offset by the declining public investment in the sector, however. The balance of payments performance was quite satisfactory: the current account deficit declined significantly relative to GDP. Government fiscal and credit policies reduced budget deficits and monetary expansion and inflationary pressures gradually subsided. This progress was made despite a number of unforeseen events: (a) world recession; (b) a 30% decline in the external terms of trade after 1979; (c) the crisis in Afghanistan, which necessitated increased outlays for defense and refugee assistance; and (d) a continued decline in real net aid flows.

6. In recent years the Government has taken a number of initiatives to improve agricultural, industrial, fiscal and credit policies. In agriculture, particular attention has been given to improving farmer incentives and input supplies. Support prices for all major crops have been raised so that they are now closer to world prices. At the same time, steps have been taken to reduce the fertilizer subsidy. An

Agricultural Prices Commission has been set up to make recommendations on appropriate changes in crop support and input prices on a consistent and timely basis.

7. The Government has formulated and begun to implement a new agricultural policy based on the main recommendations of a UNDP study on irrigated agriculture. The program emphasizes the need for efficient water delivery systems through the rehabilitation of canals and better scheduling of water deliveries to the farmer, and an expanded role for the private sector. Other programs—in pesticides, seeds, agricultural credit, extension, research and farm power—have also been strengthened. These initiatives are still at an early stage and a breakthrough from the problems of low productivity at the farm level is yet to take place.

8. Major changes have also been made during the past five years in government policies in the industrial sector. The policies pursued in the early and mid-1970s of extensive nationalizations, tight restrictions on the private sector, and rapid expansion of the public sector to spearhead industrial investment and growth have been gradually reversed. Most agricultural processing and some industrial units have been denationalized; constitutional safeguards have been provided to private industry against further arbitrary government acquisitions; and the areas open to the private sector have been widened. A wide range of fiscal incentives have been granted to encourage private investment and exports. These have been supplemented by a liberalization of imports which has improved the availability of inputs. The investment sanctioning procedure has been streamlined. These measures have led to an improvement in private sector confidence and stimulated private investment, mainly in small and medium-scale projects.

9. At the same time, the Government has embarked on the difficult and inevitably long process of reforming the public industrial sector, which has been plagued by low efficiency and profits. The management and organization of the public sector, and the performance of individual enterprises has been reviewed. In accordance with the recommendations of these studies, the Board of Industrial Management (BIM) has been abolished, the number of sector-holding corporations has been reduced, and boards of directors have been established which have helped to increase autonomy at the enterprise level. Some public sector units which have little prospect of improved financial performance have been closed down. These measures have helped to increase production and capacity utilization substantially in the public sector.

10. Fiscal performance improved significantly over the Fifth Plan period. The overall budget deficit and government borrowing from the banking system, which stood at 8.8% and 4.3% of GDP in the first year of the Plan, fell to 6.4% and 1.7%, respectively, by the final year. Reduced levels of government borrowing from banks, together with overall credit restraint, led to lower rates of growth of the money supply and lessened

inflationary pressures; prices rose by 5% in the final year of the Plan as compared with 8% in the first year. The improvement in fiscal performance was, however, largely the result of expenditure restraint rather than better revenue performance. Real expansion in current expenditures on economic and social services barely kept pace with population growth and development expenditures declined relatively to GDP. At the same time, government revenues remained constant at 16% of GDP and public savings, having risen in the first half of the Plan period from 1% to 3.8% of GNP, amounted to only 1.6% in the last year of the Plan. Greater resource mobilization by the public sector will be critical for the implementation of the Sixth Plan.

11. The developments in the Pakistan economy since 1977 represent welcome steps towards the solution of a set of problems which are essentially structural and long term in nature. Notwithstanding these improvements, further wide-ranging measures to address the main issues are necessary if Pakistan is to sustain its recently improved economic performance over the Sixth Five-Year Plan period (FY84-88). These issues include the farm-level factors affecting low productivity in agriculture; the structure and competitiveness of the industrial sector; the need to restrain the growth of energy demand and improve the exploitation of domestic energy resources; the factors lying behind continued rapid growth in population; and the problems of resource mobilization.

12. Agriculture remains the economy's mainstay, accounting directly for roughly a third of GDP, employing about 55% of the labor force and, directly or indirectly, providing nearly two thirds of total exports. Except in the important case of wheat, agricultural growth since the mid-1970s has been the product of acreage expansion with little improvement in yields. Because of the high cost of extending the irrigation system, a switch to more intensive agriculture is essential. The achievement of higher productivity will require improved agricultural services and increased efficiency of the irrigation system as well as continued attention to producer incentives. Toward the latter part of the Fifth Plan, some progress was made in reorienting expenditures towards projects designed to rehabilitate and improve the operation and maintenance of the irrigation system, increase the efficiency of water use, improve quality of research and extension, and increase the supply of complementary agricultural inputs. These efforts will need to be accelerated during the Sixth Plan period. To encourage greater agricultural yields, the Government must also continue to rationalize prices of agricultural outputs and inputs. In recent years, pricing decisions have been taken in a more systematic and timely fashion based on recommendations by the newly formed Agricultural Prices Commission; procurement prices have been brought more nearly in line with international prices and subsidies for fertilizers and pesticides substantially reduced. These efforts, too, will need to be continued during the Sixth Plan period.

13. Manufacturing contributes about 15% of GDP and during much of the 1950s and 1960s provided a major stimulus to growth. After a period of stagnation during the period 1970-77, manufacturing growth has again

accelerated. To provide a solid economic basis for continued rapid growth, incentives for greater private and public manufacturing enterprise efficiency will have to be implemented. Despite some success in reviving the private sector and improving the performance of public enterprises, much remains to be done to bring about a major restructuring of industry and place it on a competitive basis. The efficient long-term development of the industrial sector will require both a relaxation of government controls and rationalization of industrial incentives. To encourage industrial growth more in line with Pakistan's comparative advantage, the process of import liberalization initiated over the past few years must be continued. In addition, the differential rates of protection given to various domestic products need to be substantially narrowed. To provide further encouragement for private investment as well as to attract risk capital, the number of administrative regulations must be reduced. In addition, the scope of price controls should be substantially narrowed, especially the use of cost-plus pricing which discourages improvements in efficiency and energy conservation. Further strong measures to increase efficiency and self-financing capacity in the public sector are also essential. The implementation of the Public Enterprises Signaling System in FY84—which has set performance objectives for individual enterprises and will provide bonus incentives for managers—should contribute toward the achievement of these objectives.

14. Energy shortages have become a significant constraint to rapid economic growth in Pakistan. Power and gas shortages are common and the country imports 90% of its petroleum needs accounting for over 26% of total imports. Energy investments to improve the energy situation total over 33% of public investment in the Sixth Five Year Plan. The Government's efforts to deal with the energy situation by adjusting domestic oil prices, and by encouraging the substitution of other energy forms and the exploration and development of domestic oil resources, have met with some success. Growth of petroleum consumption has been restrained by the development of hydroelectricity and natural gas resources as well as by petroleum price adjustments. At the same time, activity in the oil sector has been stepped up, in some instances through joint ventures with foreign private companies. Nevertheless, due to a variety of technical, geological and other reasons, progress on exploration of new fields as well as the development of existing fields has been slow and Pakistan's considerable potential in the oil and gas sector has yet to be realized. The Government has begun to implement a number of reforms relating to such matters as energy planning, pricing and organization in order to accelerate progress.

15. While it is clearly vital to sustain rapid economic growth, it is also necessary to contain the rapid growth in population, currently running at about 2.8% p.a. Family planning programs have so far had little effect and there have been few changes in the socio-economic environment of a type that usually accompany declines in fertility. Rapid population growth places severe burdens on government resources simply to maintain

education and health programs at their current inadequate standards. However, without higher literacy rates, improved health facilities and a reduction in child mortality, it is doubtful that population growth rates can be much reduced. The Government has recently shown more awareness of this problem.

16. Policies that face the longer-term issues in both the productive and the social sectors will take time to have an appreciable effect and will have to be implemented in the context of continued domestic and external resource constraints. National savings averaged only 12% of GNP over the Fifth Plan Period. To improve the budget and the balance of payments, a fundamental improvement is required in the overall savings levels in the economy, particularly in public savings. Given the size of the public sector's domestic resource requirements, a comprehensive strategy that utilizes all available instruments, including taxation policy, greater reliance on user charges, curtailment of open and implicit subsidies and improved self-financing of investment by public enterprises, will be needed.

17. The Sixth Five-Year Plan, initiated on July 1, 1983, represents a pragmatic overall strategy for Pakistan's continued rapid development. The Plan puts heavy stress upon improvements in economic policies as well as on a public expenditure program. Recognizing the importance of a dynamic private sector for rapid economic growth and the limitations on public sector resources, it calls for reduced regulations on the private sector, increased emphasis on market incentives for greater production and efficiency and for increased participation in sectors where the Government has previously played a large role. The size and composition of the public sector development program is appropriate provided the necessary resources can be raised. While public development expenditures would expand only as rapidly as gross domestic product, this is a realistic target given projected available resources and the demands for improved public services. To achieve such an expansion - a reversal of the declining trend experienced under the Fifth Plan - and to finance an increasing share from domestic resources will require a major mobilization effort. The largest increases in sectoral allocations will go to energy, agriculture and irrigation, and the social sectors. The shift in the composition of the public sector development program is justified because of the threat to future growth posed by energy shortages, the need to increase agricultural yields by improvements in agricultural and irrigation/drainage services, and the past neglect of the social sectors.

18. The recent policy initiatives, which are to be continued during the Sixth Plan, have improved Pakistan's creditworthiness for commercial borrowing and for a blend of Bank and IDA borrowing. At the end of calendar 1982, Pakistan's external public debt (excluding the undisbursed pipeline) stood at US$9.2 billion, of which US$4.8 billion was owed to bilateral members of the Pakistan Consortium, US$1.3 billion to OPEC and US$1.8 billion to multilateral agencies and the balance to other bilateral and private lenders. In 1982, the Bank Group's share in Pakistan's external public indebtedness was 15.2% and in external debt service was 12.1%.

According to Bank forecasts, provided recent policy improvements are sustained, Pakistan's debt service ratio (debt service divided by exports of goods and services), which was about 13.7% (including IMF charges) in FY82, is likely to remain below 15% during the 1980s, even with somewhat higher levels of commercial borrowing.

## PART II - BANK GROUP OPERATIONS IN PAKISTAN

19. The cumulative total of Bank/IDA commitments to Pakistan (exclusive of Loans and Credits or portions thereof which were disbursed in the former East Pakistan) now amounts to approximately US$2.9 billion. During its long association with Pakistan, the Bank Group has been involved in almost all sectors of the economy. This has included its involvement with other donors, over a 20-year period, in the major program of works to develop the water resources of the Indus Basin. Approximately 30% of total Bank/IDA commitments to Pakistan have been for agriculture and irrigation; 26% for industry including import program credits; 21% for transport, telecommunications and public utility services; 14% for energy including power, gas pipelines and petroleum; 4% for social programs in education, population and urban development; and 5% for a SAL.

20. Lending operations in Pakistan have three main objectives: first, to support the directly productive sectors of the economy; secondly, to support the expansion of, and to improve the institutions which are responsible for, the principal public services supporting economic growth; and thirdly, to meet basic needs in the areas of rural and urban development.

21. In pursuit of these objectives, the Bank Group has placed special emphasis on lending for agriculture, which is the mainstay of the Pakistan economy. Projects in this sector are aimed at augmenting the supply of essential inputs, principally irrigation water, fertilizer, seeds and credit; strengthening research, extension and other agricultural supporting services; improving water management; reversing or controlling salinity and waterlogging; and expanding livestock development. An important purpose of this lending is to assist the Government to obtain a balance between further investments in physical infrastructure and complementary institutional improvements.

22. In industry, lending through DFCs and other financial intermediaries which has been mainly for the private sector totals US$488.5 million. This includes eleven Loans/Credits for the Pakistan Industrial Credit and Investment Corporation (PICIC), two Credits for the Industrial Development Bank of Pakistan (IDBP), one Credit for the National Development Finance Corporation (NDFC), two Credits for Small Scale Industries through five commercial banks, and a Loan/Credit for industrial investment through five participating financial institutions including two commercial banks. Direct lending for industry has also included assistance to three large fertilizer plants and a refinery engineering loan.

As of September 30, 1984, IFC had made investments in 15 Pakistan enterprises for a total of US$174.2 million, of which US$163.2 million was by way of loans and US$10.9 million by equity participations (these are shown in Annex II). About US$51.0 million of these investments remained outstanding. IFC has assisted enterprises in the fields of pulp and paper products, textiles, food and food processing, petrochemicals, cement, steel, fertilizer, plastics, and wood processing. IFC is also a shareholder in PICIC.

23. The Bank has had a long standing involvement in the energy sector. In power, the Bank Group has assisted the Karachi Electric Supply Corporation (KESC) and the Water and Power Development Authority (WAPDA) with four and three projects respectively; the sector has also been assisted by the construction under the Indus Basin Development Program of Mangla and Tarbela Dams. In petroleum, the two Sui gas transmission companies have been assisted with five projects, while the Bank Group is financing two petroleum projects, for production and exploration, and is playing an important role in strengthening the public Oil and Gas Development Corporation. An IDA credit to support a Coal Exploration project was approved in mid-1983. These efforts are assisting in the efficient development and utilization of Pakistan's domestic energy resources and in establishing a policy and institutional framework for increased private investment in the sector. In addition, IFC has made three loans in the petroleum sector.

24. The focus of Bank Group lending for transport and communications has shifted increasingly towards assisting Pakistan to better utilize existing capacity by improving the efficiency of operations and strengthening the institutions responsible for these services, especially the Karachi Port Trust, Pakistan Railways, the Telephone and Telegraph Department, and federal and provincial highway agencies. IDA has financed four projects in the urban and water supply sector, two of which are currently being implemented. Five credits for education, totaling US$62.5 million, have assisted in upgrading primary, post-secondary and higher technical and agricultural education, middle-level training of primary teachers and agricultural extension agents. A first population project was approved in April 1983.

25. In addition to financing specific high-priority projects in key sectors of the economy, the Bank has from time to time supported Pakistan's development through program assistance. A first structural adjustment lending operation (SAL) was approved by the Executive Directors in June 1982. This SAL program consisted of a number of significant reforms in government development planning and in policies and programs in the agriculture, energy and industrial sectors.

26. Annex II contains a summary statement of Bank Loans and IDA Credits as of September 30, 1984. Credit and loan disbursements have been generally satisfactory. Some projects have experienced initial delays due

to protracted government procedures for project approval, which are being addressed, and to slowness in the procurement of goods and services. Rapid turnover of managerial and technical staff, in part due to migration to the Middle East, and budgetary constraints have been problems in the case of some projects.

27. A number of further projects for Bank Group financing are currently under appraisal or being prepared in Pakistan. These include projects for power transmission and generation, direct and indirect industrial investments, oil and gas development, irrigation, agriculture, telecommunications, urban development and education. Pakistan continues to have domestic resource constraints for the reasons set out in Part I. To assist the Government to finance agricultural and other high-priority projects which have a low foreign exchange component, financing of some local expenditures in specific cases is justified.

28. In addition to lending, economic and sector work provides the basis for a continuing dialogue between the Bank Group and the Government of Pakistan on development strategy, and for the coordination of external assistance within the Pakistan Consortium.

## PART III - THE AGRICULTURE AND IRRIGATION SECTOR

29. Despite its declining relative importance, agriculture continues to dominate Pakistan's economy. It contributes about 30% of gross domestic product, provides about two-thirds of total exports, and employs approximately 55% of the country's labor force. The agriculture sector's growth rate decreased from an annual average of 6% in the Sixties to 2% in the Seventies, in large part because of inappropriate policies. Following the change of Government in 1977, agricultural policies improved and growth rates rose to an average rate of 4.4% during FY1979-83. A temporary setback in FY1984 caused by severe insect damage to the cotton crop and adverse weather conditions is not expected to slow the overall pattern of growth.

### Irrigation and Drainage

30. Pakistan has a total land area of 79.6 million hectares (ha) of which about one-fourth is cultivable. The Indus irrigation system, commanding 63% of the total cultivable area, generates about 90% of the nation's total value of agricultural output. While the Indus waters have been used for irrigation for some 3,000 years, the basic system for controlled year-round irrigation was installed under British colonial rule in the 19th and early 20th centuries. Following partition of the subcontinent in 1947 and subsequent agreement on division of the Indus waters, large irrigation investments were made in Pakistan in the Sixties and Seventies. In general, these projects sought to replace water lost through partition and increase water supplies by providing reservoir storage and making greater use of groundwater to increase both the area irrigated and the cropping intensity. Today, the Indus irrigation system, which comprises three major storage reservoirs (Tarbela, Mangla and

Chasma), 19 barrages or headworks, 12 link canals, 43 canal commands, and some 89,000 watercourses, is the largest contiguous irrigation system in the world.

31. While development of the irrigation system has made possible increased agricultural production, it has not done so without a cost. The greatly increased continuous use of Indus waters for irrigation has significantly altered the hydrological balance of the Indus Basin. Seepage losses from irrigation canals, distributaries, minors, and watercourses, as well as deep percolation from the irrigated lands, have caused a gradual rising of the groundwater table, resulting in waterlogging and salinity of much of Punjab and Sind provinces, where most of the country's food and fiber crops are produced. The watertable, which was at least 15 meters (m) deep in most areas in the early 1900s, is now less than 3 m in at least 50% of the Indus Basin. A 1961 survey estimated that 40,000 ha of irrigated land was being abandoned annually at that time as a result of waterlogging and salinity, and available information indicates that abandonment is continuing.

32. In the early 1960s, to relieve Pakistan's waterlogging and salinity problems, the GOP initiated a series of salinity control and reclamation projects (SCARP) featuring public tubewell installation for drainage and supplemental irrigation in fresh groundwater areas. To date, about 12,000 such tubewells have been installed, mostly in Punjab Province. While tubewells have alleviated waterlogging and salinity in some areas, large saline groundwater areas, especially in Sind Province, still need immediate drainage relief. Moreover, benefits from public tubewells have been limited owing to inadequate operation and maintenance (O&M) caused by technical, financial, and managerial problems.

33. No Operations Evaluation Department report has yet been prepared for a project in irrigation or drainage comparable or related to the proposed LBOD project. However, over the last 25 years the Bank Group has played a major role in the development of the Indus Basin. The Bank facilitated the negotiations that resulted in the 1960 Indus Waters Treaty which divided the waters between India and Pakistan. Subsequently, the Bank mobilized financing for and administered the Indus Basin Development Fund established to finance a massive civil works program including construction of the Mangla and Tarbela dams. In performing this role and supervising the projects, the Bank's technical, institutional, and policy advice has had a significant impact on the development of Pakistan's irrigation water resources. Partly as a result of this assistance, the Water and Power Development Authority (WAPDA) is today a relatively strong institution capable of undertaking major civil works projects, and considerable technical expertise exists in both the public and private sectors. In more recent years, the Bank has helped the GOP execute a number of studies to set the course of future investments in irrigated agriculture.

Government Policy and Bank Group Assistance

34. The GOP now recognizes that the huge investments in its irrigation infrastructure in the Sixties and Seventies will be wasted if they are not properly maintained and if adequate drainage is not provided. The Government also acknowledges that greater emphasis must be given to on-farm water management and complementary agricultural services. The Government's current investment priorities in agriculture favor rehabilitation and programs to reach the farmer directly, as well as selected major infrastructure projects, notably in drainage. This investment program will be backed up with continued efforts to widen the role of the private sector and maintain appropriate input and output pricing policies. The Bank is supporting this strategy by financing a number of projects in water management, irrigation system rehabilitation, salinity control and reclamation, research, credit, and extension.

35. Many of the agricultural policy reforms initiated in recent years grew out of a strengthened dialogue with the Bank. Each of the irrigation projects has incorporated provisions to improve O&M and cost recovery (see paras. 53-55 and 64-67), while the Fertilizer Imports Credit (Credit 1066-PAK fully disbursed) and SAL (Loan 2166/Credit 1255-PAK fully disbursed) dealt in addition with agricultural pricing and input subsidies. Procurement prices for Pakistan's major crops - wheat, cotton, and rice - are at or near parity with world market prices, and current output-input price ratios appear to provide adequate incentives to farmers. All subsidies on pesticides were eliminated by 1983, and the Government has regularly reduced the fertilizer subsidy in accordance with its commitment under the Fertilizer Imports Credit to phase out the subsidy by mid-1985.

36. Despite the policy reforms of recent years and the GOP's essentially correct priorities, a great deal more remains to be done if the potential of the agriculture sector is to be realized. More attention needs to be given to the link between extension and research, and to coordinated availability of agricultural information, inputs, marketing, and credit. Of particular importance will be the achievement of a balance between further investments in physical infrastructure and programs to improve the delivery of inputs and services to the farmers. In the past, the latter efforts have foundered because of inadequate funding and weak institutions and management. Success in improving services at the local level will require better coordination both between the federal and provincial governments and among various provincial agencies. The Bank's sector dialogue with the GOP is focused on these issues with a view toward support for further policy reforms through a possible sector lending operation.

Sind Province and Project Area

37. Sind Province contains about 25% of Pakistan's total irrigated land. Located in the lower part of the Indus Plain, it is also the repository for the entire Plain's drainage water. Approximately 3.2 million ha, or more than 50% of Sind's total irrigated area, are already severely affected by waterlogging and/or salinity problems.

38. The proposed project would cover an area of about 516,000 ha in Sind, where there has been a dramatic rise in the watertable during the past 20 years. Currently, about 30% of the area has a watertable less than 1.2 m in depth, which has induced salinization of uncropped land. Both cropping intensity and yields in the project area are low relative to Sind's potential. Lack of sufficient irrigation water and problems associated with the rising water table and salinization are the main constraints. In addition, although fertilizer use is widespread, inadequate cultivation practices, poor pest control, and limited use of high yielding seeds contribute to the low yields.

39. The project area's population of about 1.2 million, of which 73% are classified as rural, comprises 7.6% of the rural population of Sind. The project area includes an estimated 113,000 farm holdings, the majority of which are over 20 ha. However, since about 60% of the units are farmed by share-cropping tenants, the average operational farm unit is less than half the size of the average land holding. Thus, about 70% of the operational farm units are less than 5 ha and 90% are less than 10 ha.

40. As noted above (para. 36), supporting agricultural services throughout the country, including the project area, need to be strengthened. While this will be a long-term effort, existing services, reinforced by ongoing and proposed projects, are considered adequate to support LBOD Stage I. Agricultural credit is available in the project area from the Agricultural Development Bank of Pakistan (ADBP) and from commercial banks. The availability of credit is being expanded through support to ADBP by the Bank and other donors. Marketing and pricing of inputs and outputs are adequate for the expected project output. The ongoing Sind Agricultural Extension and Adaptive Research Project (Credit 922-PAK) is strengthening extension services in much of the proposed LBOD project area, and the remaining area will be covered during implementation of LBOD. While research is still not adequate to meet the practical needs of farmers in the area, this too will be improved under the ongoing Agricultural Research Project (Credit 1158-PAK).

## PART IV - THE PROJECT

Background and Rationale for Bank Involvement

41. Proposals to halt and/or reverse the waterlogging and salinization in Sind by constructing major drainage facilities date back to the mid-

Sixties. Even at that time the Government realized that a comprehensive program to include improvements in the irrigation system and water management as well as drainage was required. However, owing to a shortage of funds, the GOP initiated, with its own funds, construction of only a main spinal drain in the 1970s on the assumption that external financing could be found to complete the required works. At the GOP's request, in 1982 the Bank agreed to serve as Executing Agency for UNDP-financed preparation of a broader integrated project. The Bank's willingness to assume this role was based on: (a) its already substantial involvement in the development of the Indus Basin irrigation system; (b) its conviction that a drainage program of considerable magnitude and complexity was required; and (c) its continued commitment to support the agricultural sector as the mainstay of the economy.

42. The proposed project represents the culmination of nearly two years of intensive work, which built upon and amplified earlier work. During this time Bank staff had considerable influence on the design of the project and were able to help ensure its technical and economic viability. In addition, the Bank assisted the GOP in early identification of cofinanciers, a factor which made possible unusually close collaboration among the potential donors and with concerned Government agencies. Four donor agencies participated in the appraisal in January/February 1984, and a cofinanciers' meeting was held in Paris in May 1984. Negotiations were held jointly with the Asian Development Bank (ADB) in Manila, September 19 to 25, 1984; the Pakistan delegation was led by Wahab Sheikh, Secretary, Ministry of Water and Power. A Staff Appraisal Report entitled "Pakistan: Left Bank Outfall Drain Stage I Project" (Report No. 5185-PAK, dated November 5, 1984) is being circulated separately to the Executive Directors. A supplementary project data sheet is attached as Annex III. The Executive Director for India was apprised of the proposed project prior to appraisal, and the Association has been informed that the Government of India has no objection to the project.

Objectives and Scope

43. The proposed project would be the first phase of a comprehensive Left Bank Outfall Drain (LBOD) program to provide drainage relief and improve agricultural production within 11 sub-areas covering the entire left bank of the Indus River below the Sukkur Barrage. LBOD Stage I would include three sub-areas - Nawabshah, Sanghar, and Mirpurkhas (Map IBRD 18245) - selected on the basis of agricultural potential and need for drainage. Nawabshah is served by the Rohri Canal, and Sanghar and Mirpurkhas by the Eastern Nara Canal, which feeds into the Jamrao Canal. The limited original capacity of these canals, reduced further by erosion deposits, deprives the subareas of valuable potential water. Construction of a substantial part of the main spinal drain has been completed with GOP financing; and the GOP is currently remodelling the Rohri Canal. The size of the proposed Stage I project reflects the economies of scale associated

with the core drain and the fact that it has the highest net present value of various alternatives.

44. The project, to be implemented over an eight-year period (FY86-FY93), would consist of a major outfall drain and a comprehensive drainage system to: (a) provide surface drainage for an area of about 516,000 ha; (b) provide sub-surface drainage relief for an area of about 392,000 ha; and (c) transport excess water and salt out of the area, thus reversing deterioration of the land resource base due to waterlogging and salinity. To obtain maximum agricultural benefits from the drainage investments, the project would also include improvements in irrigation facilities and on-farm water management (OFWM), as well as institutional support to ensure adequate O&M throughout the system. Existing water-use efficiencies would be improved and unused surface flows, which currently escape to the sea, would be stored for later use in the project area to increase cropping intensities from the present 81% to about 117%.

Project Description

45. The project would include the following components:

(i) Spinal Drain

(a) Completion of a main outfall drain under the Government's ongoing program;

(b) Construction of a bifurcation structure at the junction of the Kadhan Pateji Outfall Drain (KPOD) and the Dhoro Puran Outfall Drain (DPOD);

(c) Remodelling of DPOD and KPOD to carry drainage flows from the spinal LBOD and the existing drain from the Kotri command;

(d) Construction of an outfall from Pateji Dhand to Shah Samando tidal creek;

(ii) Drainage Works

(a) Construction of a surface drainage network to feed LBOD, and the installation of drainage tubewells, scavenger wells, and interceptor and tile drains for sub-surface drainage and the recovery of some fresh groundwater to supplement present irrigation supplies;

(b) Construction of 11 kV distribution lines and enlargement of four grid stations to provide power for drainage tubewells, scavenger tubewells, tile drainage pumping stations, and interceptor drain pumping stations;

(iii) Irrigation Works

(a) Remodelling of the Nara and Jamrao Canals, rehabilitation of the Jamrao headworks, and construction of Chotiari Reservoir to provide seasonal storage of about 864 million cubic meters; and

(b) Improvement of about 920 watercourses and precision levelling of about 26,000 ha.

Project Implementation

46. Since the phasing of all other components would depend on the timely completion of the spinal drain, the Government has agreed that adequate provisions would be made to complete the spinal drain and associated structures up to the Nawabshah sub-area to required capacity by July 31, 1986 (draft Development Credit Agreement, Section 3.10). Another prerequisite for project implementation is completion of certain portions of the ongoing Rohri Canal remodelling which the Government is also financing by itself. The GOP and GOSind have agreed that the Rohri remodelling would progress at a rate which was sufficient to make the benefits available to the LBOD Project area by January 1, 1990 (draft Development Credit Agreement, Section 4.04 and draft Province Project Agreement, Section 3.09). The full benefits expected from construction of the irrigation works, including the Chotiari Reservoir, would only be achieved if use were made of all the additional water. The GOP and GOSind have given assurances that the water supplies made available by the Nara and Jamrao Canal remodelling and construction of the Chotiari Reservoir would be fully utilized in the LBOD Stage I and adjoining areas, including the proposed Makhi-Faresh project to be financed outside the LBOD project (draft Development Credit Agreement, Section 3.11 and draft Province Project Agreement, Section 2.15).

47. Project Management. WAPDA would be responsible for implementation of all aspects of the project except the Nara and Jamrao Canal remodelling and OFWM, which would be the responsibility of GOSind's Department of Irrigation and the OFWM Directorate in the Department of Agriculture, respectively. A Project Steering Committee (PSC), comprised of ranking officials of WAPDA and GOSind's Departments of Irrigation, Agriculture, Planning and Development, and Finance would provide overall project guidance and coordination. An Integrated Management Organization (IMO), headed by a Chief Engineer assisted by internationally selected consultants, would manage and coordinate project implementation. Establishment of the PSC and the IMO, with powers and functions satisfactory to IDA, would be a condition of credit effectiveness (draft Development Credit Agreement, Sections 3.05, 3.06, and 6.01(d)). The IMO would be subdivided into seven offices, each headed by a Project Director, to implement the various project components including the three sub-areas

(draft Development Credit Agreement, Section 3.07). These units would be staffed with qualified personnel from WAPDA and GOSind, depending on the agency responsible for the component. Assurances have been received from WAPDA and GOSind that the staff and local consultants required for project execution would be provided, if and when necessary, on a timely basis, and WAPDA has agreed that key IMO staff for the first year would be appointed by April 1, 1985 (draft WAPDA and Province Project Agreements, Section 2.08).

48. The Project Directors would have responsibility for the planning and implementation of civil works, including O&M for one year after completion. The Project Director for OFWM — who would liaise between the Chief Engineer, IMO, and GOSind's Department of Agriculture — would be responsible for planning and execution of the OFWM program including watercourse renovation, precision land levelling, water management, establishment of demonstration plots, and organization of Water Users' Associations (WUAs). The approach followed for the OFWM program would be similar to that successfully initiated under the ongoing OFWM Project (Credit 1163-PAK). Under the LBOD project additional OFWM teams would be fielded to ensure full coverage of the project area. For this purpose GOSind has agreed to complete training of at least two additional OFWM field teams by April 1, 1985 (draft Province Project Agreement, Section 2.09).

49. As under the ongoing OFWM Project, farmers along a given watercourse would be required to form a WUA as a condition of receiving assistance to renovate the watercourse. The WUAs would again be responsible for renovation and O&M of the watercourses. To perform this task the WUAs would manage the farmer contributions of labor and cash (see para. 65). In addition, under the LBOD project GOSind would undertake a phased program to extend the WUA functions to include drainage O&M. For this purpose, by July 1, 1986, GOSind would amend the WUA Ordinance of 1982, or take other measures as necessary, to extend the powers and responsibilities of WUAs to cover all aspects of drainage (draft Province Project Agreement, Sections 2.10, 2.13, and 3.08).

50. Monitoring and Evaluation (M&E). Monitoring of physical parameters would be incorporated in the ongoing data-gathering program of WAPDA's M&E Organization which is to be expanded under the project. IMO would: (a) by September 30, 1985 submit to IDA for comment a detailed monitoring and reporting program; and (b) by February 1, 1986 execute a memorandum of understanding with WAPDA's M&E organization covering the agreed monitoring work plan (draft WAPDA Project Agreement, Section 2.09). GOSind's Department of Planning and Development would be responsible for the eleven-year evaluation of the socio-economic impact of the entire project. GOSind would: (a) by September 30, 1985 submit to IDA for comment a program for impact monitoring and evaluation including terms of reference and invitations for proposals from independent local institutions to carry out the work; and (b) by February 1, 1986 conclude with

such an institution a contract acceptable to IDA, including a sub-contract with a suitable internationally selected institution, to carry out the impact evaluation study under terms of reference and conditions satisfactory to IDA (draft Province Project Agreement, Section 2.14).

51. Technical Assistance and Training. In view of the size and technical and managerial complexity of the project, a substantial amount of technical assistance and training would be required. The project would provide about 878 man-months of internationally selected consulting services to assist project management in overall planning and monitoring of project implementation; special studies; preparation of design criteria, final designs, specifications, tender documents, and contracts; supervision of construction; and preparation of O&M procedures. In addition, provision has been made for about 264 man-months of local consultants to assist GOSind as necessary in carrying out the OFWM program. The internationally recruited consultants would be appointed and fielded by July 1, 1985. The consultants for OFWM would be appointed and fielded no later than January 1, 1987 (draft Development Credit Agreement, Section 3.02 and draft WAPDA and Province Project Agreements, Section 2.02).

52. In-service local and overseas training would be provided to professional staff. About 30 engineers and other professional staff would receive mid-career and in-service training in O&M management. Visiting experts, coordinated by the overall project consultants, would conduct numerous short training courses. Training of additional staff for the project's OFWM program would be conducted mainly in the field by existing staff. In addition, to improve the environmental monitoring capability required under LBOD (para. 69), officers of the Sind Department of Forestry and Wildlife associated with the Rann of Kutch Wildlife Sanctuary would receive training as required.

Operation and Maintenance

53. In past years, O&M of the irrigation system has suffered from inadequate funding and weak technical and organizational capacity at the provincial level. While recent efforts, supported by Bank Group assistance and associated Government commitments, have done much to correct the situation, GOSind recognizes that further improvement in funding and efficiency is required throughout the province. In the meantime, WAPDA and GOSind intend to ensure that all LBOD facilities are properly operated and maintained from the start. An O&M organization would be set up within the IMO to operate and maintain all drainage works constructed or improved under the project. About one year after completion of a given component or area, the staff, equipment, and facilities required to maintain it would be transferred from the IMO to GOSind's Irrigation Department. To ensure smooth turnover, assurances have been received from GOSind that provincial O&M personnel would be seconded to the IMO for at least one year prior to completion of works in a given area. In addition, GOSind and WAPDA would jointly inspect the facilities both at the time of comple-

tion of the works and again one year later immediately prior to transfer of the facilities to the Province (draft WAPDA and Province Project Agreements, Section 2.11).

54. The IMO would develop operational procedures and by January 1, 1988 would submit a draft O&M manual to IDA for review and comment. The manual would be updated as project components were completed, and a final manual would be prepared by January 1, 1991 (draft WAPDA Project Agreement, Section 2.10).

55. To further guard against long-term deterioration of the system, GOSind, assisted by WAPDA, would designate an independent technical team acceptable to IDA to monitor and review every three-years, beginning by January 1, 1988, the O&M requirements of LBOD-Stage I in light of operational experience. Funding for O&M of the drainage facilities constructed under the project (including the spinal drain), when taken over by GOSind, would be provided from the provincial budget. Assurances have been received from GOSind that adequate funds would be made available each year to meet O&M and capital replacement requirements of the drainage facilities constructed under the project, as determined by the periodic independent technical reviews. In addition, GOSind has reconfirmed its existing commitment under the Command Water Management Project (Credit 1487-PAK) to review annually the required funding for O&M of the Province's entire irrigation and drainage system and submit its proposed funding levels to IDA, for review and comment, by February 1 each year (draft WAPDA Project Agreement, Section 2.12 and Province Project Agreement, Sections 2.12 and 3.04).

Project Costs

56. Total project costs are estimated at about US$635.7 million, including US$97.1 million taxes and duties. Foreign exchange costs are estimated at about US$318.6 million, or about 50% of total project costs. Base costs are expressed in September 1984 prices. About US$10.6 million is for O&M of completed works during project implementation. Project costs include physical contingencies (10-20% of base costs) and price contingencies based on projected local (6-8%) and international (6-9%) inflation rates. Farmer-donated labor for watercourse renovation totalling approximately US$1.0 million has been excluded from the cost estimates.

Financing

57. Tentative project financing totalling about US$417.1 million, or about 77% of project costs net of taxes and duties, has been agreed upon by six external cofinanciers, including IDA. This amount would finance about 93% of foreign exchange costs and 55% of local costs (net of taxes and duties). The expected cofinanciers and the terms on which their funds would be made available are shown in para. 1 of this report. All external

funds would be passed on to GOSind and WAPDA through budgetary allocations according to normal GOP procedures. The GOP would finance the remaining US$218.6 million, including about US$97 million taxes and duties. The proposed IDA Credit of US$150 million equivalent would finance about 28% of total project costs (net of taxes and duties). IDA would finance construction of KPOD and DPOD, Nara and Jamrao canal remodelling, and electrification; and IDA would joint-finance technical assistance with the ADB and OFWM with SDC. To facilitate financing of the project, the GOP would establish a Special Account in the State Bank of Pakistan into which IDA would advance funds according to standard IDA procedures for such accounts. Sub-accounts for WAPDA and GOSind would be established for their respective parts of the project. Most IDA-financed expenditures would be made through the Special Account. However, payments for the internationally recruited consultants, civil works contracts over US$3 million, and certain large procurement packages would be made in accordance with normal IDA credit withdrawal procedures. Conditions of credit effectiveness would require, inter alia: (a) final approval of an umbrella PC-I (the GOP's project document) for the entire project by the Executive Committee of the National Economic Council (ECNEC); (b) establishment of the Special Account; and (c) meeting all conditions precedent to the effectiveness of the financing from the other external agencies (draft Development Credit Agreement, Section 2.02(c) and 6.01 (a,b,c)).

Procurement

58. Each cofinancier would agree with the GOP on procurement procedures to be followed. About US$284.2 million equivalent, or 53% of project costs net of taxes and duties, is expected to be procured according to international competitive bidding (ICB). Procurement procedures are summarized below:

## Procurement Arrangements According to Project Component
(US$ million equivalent)*

| Component | ICB | LCB | Other | N.A. a/ | Cost |
|---|---|---|---|---|---|
| A. Civil Works | | | | | |
| 1. Outfall Drain System | | | | | |
| Core Program | | | 8.4 a/ | 1.9 | 10.3 |
| KPOD & DPOD | 19.9 (19.9) | | | 5.0 | 24.9(19.9) |
| Tidal Link | | | 29.6 b/ | 6.0 | 35.6 |
| Sub-Area Drainage Components | | | | | |
| Surface Drainage | 34.8 | | | 6.7 | 41.5 |
| Drainage Tubewells | 48.3 | | | 10.2 | 58.5 |
| Scavenger Wells | 17.0 | | 12.0 c/ | 5.0 | 34.0 |
| Interceptor Drains | 13.6 | | 16.4 d/ | 4.7 | 34.7 |
| Tile Drains | 15.0 | | 19.1 d/ | 5.2 | 39.3 |
| 3. Irrigation/OFWM Works | | | | | |
| Nara Canal Remodelling | 31.8 (30.5) | | | 6.3 | 38.1(30.5) |
| Jamrao Canal Remodelling | 43.3 (42.3) | | | 9.7 | 53.0(42.3) |
| Chotiari Reservoir | | | 30.4 b/ | 5.8 | 36.2 |
| OFWM | | | 17.0(8.0) e/ | | 19.2(8.0) |
| 4. Electrification | 47.3 (39.5) | | 11.2 a/ | 2.2 | 66.0(39.5) |
| 5. Maintenance Depot (Includes Workshop) | | 1.0 | | 7.5 | 1.1 |
| B. Equipment & Vehicles | | | | | |
| OFWM | | | 0.3 (0.1) | 0.1 | 0.4 |
| Maintenance Equipment | | | 20.8 c/ | 12.6 | 33.4 |
| Maintenance Depot/Workshop | | | 0.5 c/ | 0.3 | 0.8 |
| Electrification Equipment | | | 10.6 a/ | 1.8 | 12.4 |
| C. Technical Assistance & Training | 13.2 (4.8) f/ | | | | 13.2(4.8) |
| D. Administration | | | | | |
| Engineering | | | | 41.4 | 41.4 |
| OFWM (Salaries & Other) | | | 9.5(4.9) | 0.2 | 9.7(4.9) |
| O&M and camps during construction | | | | 10.6 | 10.6 |
| E. Monitoring & Evaluation | | | 4.3 g/ | 0.1 | 4.4 |
| F. Land Acquisition | | | | 17.0 | 17.0 |
| Total Project Costs | 284.2(137.0) | 1.0 | 190.1(13.0) | 160.4 | 635.7(150.0) |

* Figures in parentheses are the respective amounts financed by IDA.
a/ To be financed by GOP (including taxes and duties of about US$97 million).
b/ To be financed by Saudi Fund and procured under their ICB procedures.
c/ To be financed by ODA.
d/ To be financed by CIDA.
e/ To be financed jointly by IDA and SDC.
f/ To be financed jointly by IDA and ADB.
g/ To be financed jointly by CIDA, ODA, and SDC under untied grant aid and administered by IDA.

59. The KPOD and DPOD and canal remodelling financed by IDA would follow ICB procedures, with all labor, materials, and equipment to be supplied by the contractors. The electrification works financed by IDA would follow IDA's ICB procedures. The OFWM works, which are not suitable for ICB because they are small and scattered, would be carried out under small contracts awarded in accordance with local competitive bidding procedures satisfactory to IDA or force account, as well as with farmer-contributed labor organized by the WUAs. The appointment of local supervisory consultants for the OFWM component would be in accordance with IDA guidelines. Other consultants and training would be funded on a joint basis by IDA and ADB. These consultants would be internationally selected and engaged by WAPDA on terms and conditions acceptable to IDA and ADB. The selected international consulting firm would be encouraged to associate with a local firm.

60. The relatively small amount of office and survey equipment required for the OFWM component would be procured following GOSind procedures satisfactory to IDA comparing prices from at least three independent sources. The aggregate amount of such locally procured equipment would not exceed US$300,000 equivalent. Civil works contracts over US$1.0 million would be subject to IDA review prior to award. Other contracts would be subject to selective post-award review. A 7.5% preference on ICB civil works contracts would be extended to qualified local contractors in bid evaluation under ICB.

Disbursements

61. Disbursements from the IDA Credit would be made against:

(a) Civil Works:

(i) KPOD and DPOD — 80%

(ii) OFWM — 42%

(iii) Electrification — 74%

(iv) Nara Canal Remodelling — 80%

(v) Jamrao Canal Remodelling — 80%

(b) Office and Survey Equipment: 60% of local expenditures

(c) Administration:

Incremental salaries and operating costs for OFWM, including supervisory consultants — 50%

(d) Technical Assistance and Training: 37%

62. Disbursements for (a) [except for item (ii)] and (d) for contracts of US$1.0 million equivalent or higher would be fully documented. Disbursements for items (a)(ii), (b), (c), and civil works for contracts below US$1.0 million would be made against statements of expenditures. Supporting documents would be retained by the implementing agencies for review by IDA. Reimbursement applications for expenditures to be funded through the Special Account would be accompanied by a statement of transaction on the Special Account since the previous application, with the balance certified by State Bank of Pakistan. It is anticipated that the final disbursement would be completed by December 31, 1993, about six months after project completion. The disbursement schedule is based on the disbursement profile of IDA-supported irrigation and drainage projects in Pakistan, taking into consideration the new use of a Special Account which is expected to expedite disbursements.

Cost Recovery

63. GOP officials recognize the importance of cost recovery as a means to ensure adequate O&M funding and resource mobilization to sustain the irrigation and drainage system. At the same time, they point out that the imposition of such charges is a provincial responsibility over which the federal government has limited authority; and they emphasize that the charges must be perceived by those asked to pay as reasonable in relation to increases in agricultural production and income. Over the last four years, considerable progress has been made in Sind Province in increasing both the level of O&M funding for irrigation and the share of such funds recovered from the beneficiaries. In accordance with a number of existing IDA/Bank agreements, Sind increased water charges during FY1981-84 by an average of about 25% a year in nominal terms. In addition, Sind introduced in FY1984 a drainage charge of about Rs 40 per cropped ha for the beneficiaries of public tubewells and a smaller amount for beneficiaries of surface drains. Most recently, under Credit 1487-PAK (signed June 13, 1984) GOSind reaffirmed its existing commitment to increase water charges periodically, or make other appropriate financial arrangements, to cover an increasing percentage of the irrigation O&M costs so as to recover the full costs by July 1, 1988.

64. During negotiation of the proposed LBOD-Stage I project, the GOSind representative stated that the Province intends to increase water charges this year by 10% and again in FY1986 by 15%. In addition, it was agreed that by February 1, 1986 GOSind would review with IDA the status of compliance with the existing provision under Credit 1487-PAK and measures required to meet the 1988 target for full irrigation O&M cost recovery (draft Province Project Agreement, Section 3.06).

65. O&M costs, including capital replacement, for LBOD Stage I would be high both in absolute terms and relative to existing irrigation O&M

expenditures because of the high energy and replacement costs of drainage tubewells. Thus the total drainage O&M costs of LBOD-Stage I would average about Rs 600 per cropped ha, which represents about 70% of GOSind's total FY1984 O&M expenditures for irrigation. To help meet these drainage expenses, GOSind has agreed (a) about one year after commencement of full operation of the facilities in each sub-area, to collect drainage charges from the beneficiaries to cover 25% of the O&M costs of the facilities; and (b) thereafter, at least every two years, increase the drainage charges so as to recover at least 50% of the O&M costs by July 1, 1995 and all the O&M costs by July 1, 2005, provided that the drainage charges keep pace and are commensurate with the benefits actually accruing to the beneficiaries. In addition, the Province has agreed to meet with IDA three months before the initial charge and each increase to review the actual benefits against the projected benefits and proposed charges (draft Province Project Agreement, Section 3.07). Estimates of the actual benefits would be obtained from the impact evaluation study (see para. 50). While no recovery of capital costs for drainage facilities is proposed, as under existing projects, farmers benefiting from watercourse improvements would contribute all unskilled labor and repay 25% of the cost of materials (draft Province Project Agreement, Section 3.05).

66. The initial combined irrigation and drainage charges (Rs 245 per cropped ha) collected from the project beneficiaries, none of whom now pay drainage charges, would be some three times greater than current charges (Rs 60 per cropped ha) for irrigation. The total recovery of irrigation and drainage O&M costs proposed at full development (year 2005) would represent about 10-25% of the net incremental farm income, depending on the farm size, watertable, and cropping intensity. If an existing Islamic levy on agricultural production is included, the share of project-related incremental farm income recovered increases to 15-30%.

Benefits and Risk

67. Benefits. The project would increase agricultural production over about 516,000 ha by lowering watertable and salinity levels, saving or recovering water lost from the irrigation system, and providing supplementary water. The effect of reversing the abandonment of land, combined with increased cropping intensities and yields, is expected to result in annual incremental production of about 315,000 mt of seed cotton, 215,000 mt of wheat, and moderate increases in other crop and livestock products. The total annual foreign exchange benefits of this production would be the equivalent of about US$180 million. Additional benefits are expected from reduced damage to infrastructure currently caused by stormwater and high watertables. The estimated economic rate of return for the LBOD Stage I project is about 14%. While the previous investments in the spinal drain are justified "sunk costs", if they were included the project would still be economically viable with a rate of return of about 12%.

68. About 140,00 farm families, or 910,000 people, would benefit directly from the project, and another 120,000 would benefit indirectly. Increases in income levels would range from 22% to 118% and would be expected to accrue primarily to families with annual incomes currently below US$100 per capita. While it is difficult to predict precisely the effect the project would have on the income of the tenant farmers who comprise nearly 75% of the project area's population, based on existing practice, they would be expected to receive 50% of the additional farm income and to share the water and drainage charges and other levies on a similar basis. On this assumption, the annual income of a typical tenant farm of about five ha is expected to be about US$270 per capita with the project as compared to US$175 per capita without the project and to US$90 today (all in mid-1984 prices). Tenants would be protected from eviction by a number of statutory and acquired rights, and the substantial project-generated farm employment requirements would further protect their right to the land and ensure that they received an equitable return. Since the population of the project area is expected to double during the project development period (1985-2010), without the project underemployment would become a major socio-economic problem and migration to Karachi and other cities would increase substantially. By contrast, after allowing for some mechanization, the project would generate additional farm labor requirements equivalent to about 42,000 man-years or a 47% higher demand than without the project. On balance the income distributional effects of the project are likely to be neutral. However, in view of the importance of this subject, it would be given special attention in the impact evaluation study (para. 50).

69. Environmental Impact. The basic purpose of the project would be to improve the environment of valuable agricultural land which is increasingly threatened by waterlogging, salinity, and associated flooding and water pollution. Initial concerns about the possibility of environmental damage from saline drainage either in Pakistan or across the border in India were given intensive consideration during project preparation. The final design, incorporating a bifurcation weir across the Dhoro Link, would permit regulation of the quantity and quality of drainage flow from DPOD so that mainly fresh stormwater, which is necessary to support wildlife and fisheries, would reach the Shakoor Dhand. The weir would divert the saline flows through KPOD, entirely within Pakistan territory, to the sea. Construction of bunds would prevent any overflow into the Rann of Kutch or transboundary flow into India on the way to the sea. To ensure proper monitoring of the environmental impact of the project, staff of the Department of Forestry and Wildlife would be trained, and offices and quarters for field staff monitoring the environmental impact would be constructed.

70. Risks. Given the magnitude and integrated nature of the project, delay in completing any one part would jeopardize the success of the total project. In particular, delay in completing the irrigation works would reduce the expected increases in agricultural production and jeopardize

the economic viability of the project. To minimize this risk, project expenditures have been carefully phased and internationally recruited consultants would reinforce project management. The strong commitment of both the federal and Sind governments to the project should ensure that necessary funds are made available. In addition, WAPDA's proven capability to execute large complex projects should reduce the possibility of construction delays. A further risk that inadequate O&M of the project's drainage system would cause a shortfall in expected incremental agricultural production would be minimized through initial funding of O&M incremental costs, technical assistance, and training during project execution and a series of agreed measures to maintain adequate O&M levels, as well as additional provincial revenues from cost recovery, throughout the life of the project.

## PART V - LEGAL INSTRUMENTS AND AUTHORITY

71. The draft Development Credit Agreement between the Islamic Republic of Pakistan and the Association, the draft Project Agreements between the Association and WAPDA, and between the Association and Province of Sind, and the Recommendation of the Committee provided for in Article V, Section 1(d) of the Articles of Agreement are being distributed to the Executive Directors separately. Additional conditions of effectiveness would be approval by ECNEC of the final PC-1 document for the entire project; meeting of all conditions precedent to the effectiveness of the agreements of the other external agencies; opening of a Special Account in the State Bank of Pakistan; and establishment of the PSC & IMO (draft Development Credit Agreement, Section 6.01).

72. Special conditions of the project are listed in Section III of Annex III.

73. I am satisfied that the proposed credit would comply with the Articles of Agreement of the Association.

## PART VI - RECOMMENDATION

74. I recommend that the Executive Directors approve the proposed credit.

A. W. Clausen
President

Attachments
November 13, 1984

TABLE 3A

PAKISTAN — SOCIAL INDICATORS DATA SHEET

| | PAKISTAN 1960/b | 1970/b | MOST RECENT ESTIMATE/b | REFERENCE GROUPS (WEIGHTED AVERAGES) /a (MOST RECENT ESTIMATE) /b LOW INCOME ASIA & PACIFIC | MIDDLE INCOME ASIA & PACIFIC |
|---|---|---|---|---|---|
| **AREA (THOUSAND SQ. KM)** | | | | | |
| TOTAL | 803.9 | 803.9 | 803.9 | - | - |
| AGRICULTURAL | 227.5 | 243.3 | 253.3 | - | - |
| **GNP PER CAPITA (US$)** | 70.0 | 130.0 | 380.0 | 278.6 | 1091.2 |
| **ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF OIL EQUIVALENT)** | 98.0 | 138.0 | 179.0 | 272.0 | 567.3 |
| **POPULATION AND VITAL STATISTICS** | | | | | |
| POPULATION, MID-YEAR (THOUSANDS) | 45851.0 | 60449.0 | 87125.0 | - | - |
| URBAN POPULATION (% OF TOTAL) | 22.1 | 24.9 | 29.1 | 21.7 | 34.7 |
| POPULATION PROJECTIONS | | | | | |
| POPULATION IN YEAR 2000 (MILL) | | | 139.6 | - | - |
| STATIONARY POPULATION (MILL) | | | 377.3 | - | - |
| POPULATION MOMENTUM | | | 1.9 | - | - |
| POPULATION DENSITY | | | | | |
| PER SQ. KM. | 57.0 | 75.2 | 105.1 | 166.6 | 261.9 |
| PER SQ. KM. AGRI. LAND | 201.5 | 248.4 | 333.6 | 345.5 | 1735.1 |
| POPULATION AGE STRUCTURE (%) | | | | | |
| 0-14 YRS | 43.8 | 46.3 | 46.1 | 35.8 | 39.0 |
| 15-64 YRS | 51.8 | 50.5 | 50.9 | 59.8 | 57.6 |
| 65 AND ABOVE | 4.4 | 3.2 | 2.7 | 4.3 | 3.3 |
| POPULATION GROWTH RATE (%) | | | | | |
| TOTAL | 2.3 | 2.8 | 3.0 | 1.9 | 2.3 |
| URBAN | 4.6 | 4.0 | 4.3 | 4.1 | 4.3 |
| CRUDE BIRTH RATE (PER THOUS) | 48.6 | 46.6 | 42.0 | 27.7 | 30.1 |
| CRUDE DEATH RATE (PER THOUS) | 23.4 | 19.3 | 15.4 | 10.1 | 9.5 |
| GROSS REPRODUCTION RATE | 3.4 | 3.4 | 3.0 | 1.8 | 2.0 |
| FAMILY PLANNING | | | | | |
| ACCEPTORS, ANNUAL (THOUS) | -- | 1908.1 | 1264.0 /c | - | - |
| USERS (% OF MARRIED WOMEN) | -- | 6.0 /d | -- | -- | 52.7 |
| **FOOD AND NUTRITION** | | | | | |
| INDEX OF FOOD PROD. PER CAPITA (1969-71=100) | 89.0 | 102.0 | 105.0 | 112.8 | 123.0 |
| PER CAPITA SUPPLY OF | | | | | |
| CALORIES (% OF REQUIREMENTS) | 88.0 | 106.0 | 106.0 | 97.7 | 114.4 |
| PROTEINS (GRAMS PER DAY) | 58.0 | 65.0 | 65.0 | 56.8 | 57.0 |
| OF WHICH ANIMAL AND PULSE | 23.0 | 22.0 | 20.0 /e | 14.9 | 14.1 |
| CHILD (AGES 1-4) DEATH RATE | 25.4 | 21.0 | 16.8 | 9.8 | 7.2 |
| **HEALTH** | | | | | |
| LIFE EXPECT. AT BIRTH (YEARS) | 43.1 | 46.0 | 49.8 | 60.0 | 60.4 |
| INFANT MORT. RATE (PER THOUS) | 161.5 | 143.0 | 120.9 | 83.8 | 66.3 |
| ACCESS TO SAFE WATER (%POP) | | | | | |
| TOTAL | -- | 21.0 | 29.0 /f | 32.9 | 37.0 |
| URBAN | -- | 77.0 | 60.0 /f | 70.9 | 54.8 |
| RURAL | -- | 4.0 | 17.0 /f | 22.1 | 26.4 |
| ACCESS TO EXCRETA DISPOSAL (% OF POPULATION) | | | | | |
| TOTAL | -- | 3.0 | 6.0 /g | 18.1 | 41.3 |
| URBAN | -- | 12.0 | 21.0 /g | 72.8 | 47.4 |
| RURAL | -- | -- | -- | 4.6 | 33.3 |
| POPULATION PER PHYSICIAN | 5400.0 | 4300.0/h | 3480.0 | 3484.2 | 7769.4 |
| POP. PER NURSING PERSON | 16960.0 | 10580.0/h | 5820.0 | 4793.1 | 2460.4 |
| POP. PER HOSPITAL BED | | | | | |
| TOTAL | 1790.0 | 1860.0 | 1560.0 /c | 1066.5 | 1044.2 |
| URBAN | 510.0 | 650.0 | 710.0 /e | 298.0 | 651.2 |
| RURAL | 22850.0 | 12480.0 | 11860.0 /e | 5993.4 | 2594.6 |
| ADMISSIONS PER HOSPITAL BED | -- | -- | -- | -- | 27.0 |
| **HOUSING** | | | | | |
| AVERAGE SIZE OF HOUSEHOLD | | | | | |
| TOTAL | 5.4 | 5.3 | 6.1 /c | -- | -- |
| URBAN | 5.6 | 5.5 | 6.4 /c | -- | -- |
| RURAL | 5.4 | 5.2 | 6.0 /c | -- | -- |
| AVERAGE NO. OF PERSONS/ROOM | | | | | |
| TOTAL | 3.1 | 2.8 /i | -- | -- | -- |
| URBAN | 3.1 | 2.7 /i | -- | -- | -- |
| RURAL | 3.1 | 2.8 /i | -- | -- | -- |
| ACCESS TO ELECT. (% OF DWELLINGS) | | | | | |
| TOTAL | -- | 17.9 /i | -- | -- | -- |
| URBAN | -- | 54.4 /i | -- | -- | -- |
| RURAL | -- | 4.9 /i | -- | -- | -- |

TABLE 3A

PAKISTAN - SOCIAL INDICATORS DATA SHEET

| | PAKISTAN 1960/b | PAKISTAN 1970/b | PAKISTAN MOST RECENT ESTIMATE/b | REFERENCE GROUPS (WEIGHTED AVERAGES) /a (MOST RECENT ESTIMATE) /b LOW INCOME ASIA & PACIFIC | MIDDLE INCOME ASIA & PACIFIC |
|---|---|---|---|---|---|
| **EDUCATION** | | | | | |
| ADJUSTED ENROLLMENT RATIOS | | | | | |
| PRIMARY: TOTAL | 30.0 | 40.0 | 56.0 | 97.4 | 102.0 |
| MALE | 46.0 | 57.0 | 78.0 | 110.5 | 105.9 |
| FEMALE | 13.0 | 22.0 | 31.0 | 83.7 | 98.2 |
| SECONDARY: TOTAL | 11.0 | 13.0 | 17.0 | 35.9 | 46.0 |
| MALE | 18.0 | 20.0 | 27.0 | 44.6 | 48.7 |
| FEMALE | 3.0 | 5.0 | 7.0 | 26.8 | 43.1 |
| VOCATIONAL (% OF SECONDARY) | 1.0 | 1.5 | 1.0 /c | 2.2 | 17.5 |
| PUPIL-TEACHER RATIO | | | | | |
| PRIMARY | 39.0 | 41.0 | 48.0 | 38.5 | 31.8 |
| SECONDARY | 24.0 | 20.0 | 23.0 /c | 18.7 | 23.5 |
| ADULT LITERACY RATE (%) | 15.4 | 20.7 /i | 24.0 /c | 53.4 | 72.9 |
| **CONSUMPTION** | | | | | |
| PASSENGER CARS/THOUSAND POP | 1.5 | 2.6 | 3.4 | 0.9 | 10.1 |
| RADIO RECEIVERS/THOUSAND POP | 6.0 | 17.1 | 67.0 | 112.1 | 113.6 |
| TV RECEIVERS/THOUSAND POP | .. | 1.6 | 9.7 | 15.7 | 50.1 |
| NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION | 13.2 | .. | 13.7 /c | 16.2 | 53.9 |
| CINEMA ANNUAL ATTENDANCE/CAPITA | 1.7 | 3.0 /i | 2.2 /c | 3.6 | 3.4 |
| **LABOR FORCE** | | | | | |
| TOTAL LABOR FORCE (THOUS) | 14448.0 | 17364.0 | 25240.0 | . | . |
| FEMALE (PERCENT) | 8.6 | 9.3 | 10.5 | 33.3 | 33.5 |
| AGRICULTURE (PERCENT) | 61.0 | 59.0 | 57.0 | 69.6 | 52.2 |
| INDUSTRY (PERCENT) | 18.0 | 19.0 | 20.0 | 15.8 | 17.9 |
| PARTICIPATION RATE (PERCENT) | | | | | |
| TOTAL | 31.5 | 28.7 | 29.0 | 42.6 | 38.7 |
| MALE | 55.2 | 50.4 | 49.3 | 54.7 | 50.9 |
| FEMALE | 5.7 | 5.5 | 6.0 | 29.8 | 26.6 |
| ECONOMIC DEPENDENCY RATIO | 1.5 | 1.7 | 1.8 | 1.0 | 1.1 |
| **INCOME DISTRIBUTION** | | | | | |
| PERCENT OF PRIVATE INCOME RECEIVED BY | | | | | |
| HIGHEST 5% OF HOUSEHOLDS | 20.3 /k | 17.8 | .. | .. | 22.2 |
| HIGHEST 20% OF HOUSEHOLDS | 45.3 /k | 41.8 | .. | .. | 48.0 |
| LOWEST 20% OF HOUSEHOLDS | 6.4 /k | 8.0 | .. | .. | 6.4 |
| LOWEST 40% OF HOUSEHOLDS | 17.5 /k | 20.2 | .. | .. | 15.5 |
| **POVERTY TARGET GROUPS** | | | | | |
| ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US$ PER CAPITA) | | | | | |
| URBAN | .. | 68.0 /j | 176.0 /c | 133.9 | 188.6 |
| RURAL | .. | 47.0 /j | 122.0 /c | 111.6 | 152.0 |
| ESTIMATED RELATIVE POVERTY INCOME LEVEL (US$ PER CAPITA) | | | | | |
| URBAN | .. | 34.0 /j | 88.0 /c | .. | 177.9 |
| RURAL | .. | 22.0 /j | 58.0 /c | .. | 164.6 |
| ESTIMATED POP. BELOW ABSOLUTE POVERTY INCOME LEVEL (%) | | | | | |
| URBAN | .. | 42.0 /j | 32.0 /c | 43.8 | 23.4 |
| RURAL | .. | 43.0 /j | 29.0 /c | 51.7 | 37.7 |

.. NOT AVAILABLE
. NOT APPLICABLE

NOTES

/a The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, "Data for 1960" refer to any year between 1959 and 1961; "Data for 1970" between 1969 and 1971; and data for "Most Recent Estimate" between 1980 and 1982.

/c 1979; /d 1968; /e 1977; /f 1976; /g 1975; /h Registered, not all practicing in the country; /i 1973; /j 1972; /k 1964.

## DEFINITIONS OF SOCIAL INDICATORS

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject country (except for "High Income Oil Exporters" group where "Middle Income North African and Middle East" is chosen because of stronger socio-cultural affiliation). In the reference group data the averages are population weighted arithmetic means for each indicator and shown only when majority of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time against the country and

**AREA (thousand sq.km.)**

Total - Total surface area comprising land area and inland waters; 1960, 1970 and 1981 data.

Agricultural - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1960, 1970 and 1981 data.

**GNP PER CAPITA (US$)** - GNP per capita estimates at current market prices, calculated by World Bank conversion method on World Bank Atlas (1980-82 basis); 1960, 1970, and 1982 data.

**ENERGY CONSUMPTION PER CAPITA** - Annual apparent consumption of commercial primary energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of oil equivalent per capita; 1960, 1970, and 1981 data.

**POPULATION AND VITAL STATISTICS**

Total Population, Mid-Year (thousands) - As of July 1; 1960, 1970, and 1982 data.

Urban Population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970, and 1982 data.

Population Projections

Population in year 2000 - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three levels assuming life expectancy at birth increasing with country's per capita income level, and female life expectancy stabilizing at 77.5 years. The parameters for fertility rate also have three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine combinations of mortality and fertility trends for projection purposes.

Stationary population - In one in which age- and sex-specific mortality rates have not changed over a long period, while age-specific fertility rates have simultaneously remained at replacement level (net reproduction rate=1). In such a population, the birth rate is constant and equal to the death rate, the age structure is also constant, and the growth rate is zero. The stationary population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.

Population Momentum - In the tendency for population growth to continue beyond the time that replacement-level fertility has been achieved; that is, even after the net reproduction rate has reached unity. The momentum of a population in the year t is measured as a ratio of the ultimate stationary population to the population in the year t, given the assumption that fertility remains at replacement level from year t onward, 1980 data.

Population Density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area; 1960, 1970, and 1981 data.

Per sq. km. agricultural land - Computed as above for agricultural land only; 1960, 1970 and 1981 data.

Population Age Structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentage of mid-year population; 1960, 1970, and 1982 data.

Population Growth Rate (percent) - Annual growth rates of total mid-year population for 1950-60, 1960-70, and 1970-82.

Population Growth Rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-82.

Crude Birth Rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970, and 1982 data.

Crude Death Rate (per thousand) - Annual deaths per thousand of mid-year population; 1960, 1970, and 1982 data.

Gross Reproduction Rate - Average number of daughters a woman of 1 year in her annual reproduction period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1982.

Family Planning - acceptors, annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family Planning - Users (percent of married women) - Percentage of married women of child-bearing age who are practicing or whose husbands are practicing any form of contraception to all married women. Women of child-bearing age are generally women aged 15-49, although for some countries contraceptive usage is measured for other age groups.

**FOOD AND NUTRITION**

Index of Food Production per Capita (1969-71=100) - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of sugar) which are edible and contain nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights; 1961-65, 1970, and 1982 data.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970 and 1980 data.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by WHO provide for minimum allowances of 60 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein on an average for the world, proposed by FAO in the Third World Food Survey; 1961-65, 1970 and 1980 data.

Per Capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

Child (ages 1-4) Death Rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group; for most developing countries data derived from life tables; 1960, 1970 and 1981 data.

**HEALTH**

Life Expectancy at Birth (years) - Average number of years of life remaining at birth; 1960, 1970 and 1982 data.

Infant Mortality Rate (per thousand) - Annual deaths of infants under one year of age per thousand live births; 1960, 1970 and 1981 data.

Access of Safe Water (percent of population) - Total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the household or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to Excreta Disposal (percent of population) - Total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentage of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per Physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per Nursing Person - Population divided by number of practicing male and female graduate nurses, assistant nurses, practical nurses and nursing auxiliaries.

Population per Hospital bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer inpatient accommodation and provide a limited range of medical facilities.

Admissions per Hospital Bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

**HOUSING**

Average Size of Household (persons per household) - Total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.

Average number of persons per room - Total, urban, and rural average number of persons per room in all urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to Electricity (percent of dwellings) - Total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

**EDUCATION**

Adjusted Enrollment Ratio

Primary school - total, male and female - Gross total, male and female enrollment of all ages at the primary level as percentages of respective primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, male and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

**COMMUNICATION**

Passenger Cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses, and military vehicles.

Radio Receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV Receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper Circulation (per thousand population) - Shows the average circulation of "daily general interest newspapers," defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema Annual Attendance per Capita per Year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas on mobile units.

**LABOR FORCE**

Total Labor Force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc., covering population of all ages. Definitions in various countries are not comparable; 1960, 1970 and 1982 data.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force; 1960, 1970 and 1981 data

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1981 data.

Participation Rate (percent) - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970, and 1981 data. These are based on ILO's participation rates reflecting age-sex structure of the population, and long time trend. E for estimates are from national sources.

Economic Dependency Ratio - Ratio of population under 15 and 65 and over to the working age population (those aged 15-64).

**INCOME DISTRIBUTION**

Percentage of Private Income (both in cash and kind) - Received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

**POVERTY TARGET GROUPS**

The following estimates are very approximate measures of poverty levels, and should be interpreted with considerable caution.

Estimated Absolute Poverty Income Level (US$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated Relative Poverty Income level (US$ per capita) - urban and rural - Local relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.

Estimated Population Below Absolute Poverty Income Level (percent) - urban and rural - Percent of population (urban and rural) who are "absolute poor."

Comparative Analysis and Data Division
Economic Analysis and Projections Department
June 1984

## ECONOMIC DEVELOPMENT DATA

**GROSS NATIONAL PRODUCT IN 1982/83 /a** — **ANNUAL RATE OF GROWTH (%, constant prices)**

| | US$ billion | % | 1969/70-1974/75 | 1975/76-1980/81 | 1981/82 | 1982/83 | 1983/84 |
|---|---|---|---|---|---|---|---|
| GNP at market prices | 33.07 | 100.0 | 3.5 | 6.8 | 3.8 | 7.3 | 5.6 |
| Gross domestic investment | 5.13 | 15.4 | -5.5 | 4.0 | 9.4 | 9.0 | 3.4 |
| Gross national saving | 4.12 | 14.1 | -2.1 | 6.9 | 5.0 | 20.3 | |
| Current account balance | -1.00 | -1.7 | | | | | |
| Resource gap | -3.18 | -10.1 | | | | | |

**OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1983/84**

| | Value Added | | Labor Force /b | | V. A. Per Worker | |
|---|---|---|---|---|---|---|
| | $ Million | % | Million | % | US$ | % |
| Agriculture | 6,679 | 24 | 14.1 | 53 | 474 | 46 |
| Industry /c | 7,832 | 29 | 5.2 | 19 | 1,506 | 147 |
| Services | 12,812 | 47 | 7.4 | 28 | 1,731 | 169 |
| Total/Average | 27,323 | 100 | 26.7 | 100 | 1,023 | 100 |

**GOVERNMENT FINANCE**

| | General Government /d | | | Federal Government | | |
|---|---|---|---|---|---|---|
| | (Rs billion) | % of GDP | | (Rs billion) | % of GDP | |
| | 1983/84 /e | 1983/84 | 1979/80-1983/84 | 1983/84 /e | 1983/84 | 1979/80-1983/84 |
| Current receipts | 73.2 | 17.4 | 16.6 | 58.2 | 13.9 | 12.8 |
| Current expenditures | 71.9 | 17.1 | 14.9 | 55.9 | 13.3 | 11.4 |
| Current surplus | 1.3 | 0.3 | 1.7 | 2.3 | 0.6 | 1.4 |
| Capital expenditures /f | 29.1 | 6.9 | 8.3 | 22.1 | 5.2 | 6.5 |
| External assistance (net) | 6.0 | 1.4 | 2.8 | 6.0 | 1.4 | 1.3 |

**MONEY, CREDIT AND PRICES**

| | 1976/77 | 1977/78 | 1978/79 | 1979/80 | 1980/81 | 1981/82 | 1982/83 | 1983/84 /a |
|---|---|---|---|---|---|---|---|---|
| | (Rs billion) | | | | | | | |
| Money and quasi money | 51.7 | 63.7 | 76.5 | 90.7 | 103.5 | 113.6 | 146.0 | 162.5 |
| Bank credit to public sector | 29.5 | 34.3 | 43.1 | 48.1 | 54.1 | 60.1 | 71.4 | 77.8 |
| Bank credit to private sector | 30.1 | 35.7 | 42.7 | 50.6 | 58.7 | 70.9 | 86.9 | 105.6 |
| | (percentages or index numbers) | | | | | | | |
| Money and quasi money as % of GDP | 34.6 | 36.7 | 39.0 | 38.3 | 37.0 | 35.1 | 40.1 | 38.7 |
| Consumer price index (1975/76=100) | 111.8 | 120.5 | 128.5 | 142.2 | 159.8 | 175.3 | 183.7 | 199.0 |
| Annual percentage changes in: | | | | | | | | |
| Consumer price index | 11.8 | 7.8 | 6.6 | 10.7 | 12.4 | 9.7 | 4.8 | 8.3 |
| Bank credit to public sector | 28.8 | 16.6 | 25.6 | 11.6 | 12.5 | 11.1 | 18.8 | 9.0 |
| Bank credit to private sector | 30.3 | 18.6 | 19.6 | 18.5 | 16.0 | 20.7 | 22.6 | 21.5 |

/a Provisional.
/b Does not include unemployed labor force.
/c Includes manufacturing, mining, construction and electricity and gas.
/d Consolidated revenues and expenditures of Federal and Provincial Governments (excluding Federal-Provincial Government transfers).
/e Revised budget data.
/f Excluding principal repayments of loans. Capital expenditures as defined in government budget include certain current expenditures.

**BALANCE OF PAYMENTS**

| | 1978/79 | 1979/80 | 1980/81 | 1981/82 | 1982/83 | 1983/84 |
|---|---|---|---|---|---|---|
| | (US$ million) | | | | | |
| Exports of goods, NFS | 2,107 | 2,955 | 3,461 | 3,052 | 3,416 | 3,440 |
| Imports of goods, NFS | 4,485 | 5,709 | 6,466 | 6,679 | 6,588 | 7,059 |
| Resource gap (deficit = -) | -2,378 | -2,754 | -3,005 | -3,627 | -3,172 | -3,619 |
| Interest payments | -261 | -285 | -357 | -453 | -421 | -477 |
| Workers' remittances | 1,395 | 1,748 | 2,097 | 2,225 | 2,886 | 2,737 |
| Other factor payments (net) | 134 | 151 | 274 | 325 | 162 | 331 |
| Net transfers | .. | .. | .. | .. | .. | .. |
| Balance on current account | -1,110 | -1,140 | -991 | -1,530 | -554 | -1,028 |
| Direct foreign investment | .. | .. | .. | .. | .. | .. |
| Net MLT borrowing | | | | | | |
| Disbursements | 813 | 1,134 | 956 | 1,102 | 1,301 | 1,234 |
| Amortization | -235 | -310 | -516 | -492 | -386 | -569 |
| Sub-total | 578 | 824 | 440 | 610 | 915 | 665 |
| Transactions with IMF/a | -14 | 78 | 315 | 358 | 413 | -15 |
| Other items n.e.i. /b | 238 | 600 | 546 | 364 | 337 | 296 |
| Increase in reserves (-) | 308 | -362 | -291 | 198 | -1,111 | 82 |
| Gross reserves (end year)/c | 386 | 748 | 1,039 | 861 | 1,952 | 1,870 |
| Official Gold (year end; million ounces) | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 |
| **Fuel and Related Materials** | | | | | | |
| Petroleum imports /d | 530 | 1,079 | 1,535 | 1,710 | 1,610 | 1,419 |
| Petroleum exports /d | 61 | 178 | 126 | 194 | 77 | 72 |

**MERCHANDISE EXPORTS (AVERAGING 1978/79-1982/83)**

| | US$ million | % |
|---|---|---|
| Raw cotton | 302.3 | 12.4 |
| Cotton yarn | 210.7 | 8.6 |
| Cotton cloth | 252.3 | 10.3 |
| Rice | 401.9 | 16.4 |
| All other commodities | 1,277.4 | 52.3 |
| Total | 2,444.6 | 100.0 |

**EXTERNAL DEBT, JUNE 1983**

| | US$ million |
|---|---|
| Public debt, including guaranteed | 9,141.1 |
| Non-guaranteed private debt /e | .. |
| Total outstanding and disbursed | 9,141.1 |

**DEBT SERVICE RATIO FOR 1982/83 /f**

| | % |
|---|---|
| Public debt, including guaranteed | 11.2 |
| Non-guaranteed private debt | .. |
| Total | 11.2 |

**RATE OF EXCHANGE**

| Through May 11, 1972 | From May 12, 1972-Feb. 15, 1973 |
|---|---|
| US$1 = Rs 4.7619 | US$1 = Rs 11.00 |
| Rs 1 = US$0.21 | Rs 1 = US$0.09 |

| From Feb. 16, 1973-Jan. 7, 1982 | From July 1981-June 1982 /g | From July 1982-June 1983 /g | From July 1983-June 1984 /g |
|---|---|---|---|
| US$ 1 = Rs 9.90 | US$1 = Rs 10.55 | US$1 = Rs 12.75 | US$1 = Rs 13.75 |
| Rs 1 = US$0.10 | Rs 1 = US$0.095 | Rs 1 = US$0.078 | Rs 1 = US$0.073 |

**IBRD/IDA LENDING (June 1983)(US$ million)**

| | IBRD | IDA |
|---|---|---|
| Outstanding and disbursed | 353.5 | 1,105.7 |
| Undisbursed | 114.7 | 670.3 |
| Outstanding including undisbursed | 468.2 | 1,776.0 |

/a Including Trust Fund.
/b Including net short-term borrowing and errors and omissions.
/c Excluding gold reserves of about 1.8 million troy ounces.
/d Crude and derivatives.
/e Non-guaranteed private debt service is negligible.
/f Ratio of actual debt service to exports of goods, non-factor services and workers' remittances; debt service does not include short-term or IMF charges.
/g Effective January 8, 1982, the rupee is being managed with reference to a weighted basket of currencies. The average exchange rate shown is vis-a-vis US$ for the period shown.
.. Not available.

October 1984

## STATUS OF BANK GROUP OPERATIONS IN PAKISTAN

### A. STATEMENT OF BANK LOANS AND IDA CREDITS (as of September 30, 1984) /a

(US$ million)
(Amount net of cancellations)

| Loan/ Credit Number | Fiscal Year | Purpose | Bank | IFC | IDA | Undis-bursed |
|---|---|---|---|---|---|---|
| Ninety-five loans and credits fully disbursed /b | | | 781.4 | 32.0 | 960.8/f | |
| 630 | 1976 | Second Lahore Water Supply | — | | 26.6 | 0.2 |
| 648 | 1976 | Irrigation & Drainage (Khairpur) | — | | 14.0 | 4.4 |
| 1366T | 1977 | Punjab Livestock Development | — | 10.0 | — | 3.8 |
| 678 | 1977 | Third Education | — | | 15.0 | 3.5 |
| 751 | 1977 | Hill Farming Tech. Development | — | | 3.0 | 0.1 |
| 754 | 1978 | Salinity Control & Reclamation | — | | 70.0 | 67.0 |
| 813 | 1978 | Punjab Ext. & Agric. Dev. | — | | 12.5 | 5.7 |
| 877 | 1979 | Salinity Control & Recl. (Mardan) | — | | 60.0 | 54.4 |
| 892 | 1979 | Primary Education | — | | 10.0 | 4.5 |
| 922 | 1979 | Sind Agricultural Extension | — | | 9.0 | 6.2 |
| 968 | 1980 | Third WAPDA Power | — | | 45.0 | 8.9 |
| 974 | 1980 | Third Highway | — | | 50.0 | 24.4 |
| 1019 | 1980 | PICIC Industrial Development | — | | 40.0 | 4.8 |
| 1109/e | 1981 | Vocational Training | — | | 25.0 | 9.8 |
| 1113/e | 1981 | Small Industries | — | | 30.0 | 3 7 |
| 1157/e | 1981 | Grain Storage | — | | 32.0 | 20.9 |
| 1158/e | 1981 | Agricultural Research | — | | 24.0 | 17.0 |
| 1163/e | 1981 | On-Farm Water Management | — | | 41.0 | 15.8 |
| 1186/e | 1982 | Industrial Development (IDBP II) | — | | 30.0 | 11.0 |
| 2122 | 1982 | Fourth Telecommunication | 40.0 | | — | 20.4 |
| 2172 | 1982 | Fertilizer Industry Rehabilitation | 38.5 | | — | 30.8 |
| 2247 | 1983 | Reservoir Maintenance Facilities | 10.2 | | — | 10.0 |
| 2305 | 1983 | Agricultural Dev. (ADBP V) | 10.0 | | — | 7.4 |
| 2324 | 1983 | Fifth Sui Northern Gas Pipelines | 43.0 | | — | 42.2 |
| 1239/e | 1982 | Irrigation Systems Rehabilitation | — | | 40.0 | 28.2 |
| 1243/e | 1982 | Baluchistan Minor Irrig. & Agr. | — | | 14.0 | 10.8 |
| 1256/e | 1982 | Technical Assistance | — | | 7.0 | 5.1 |
| 1278/e | 1982 | Eleventh Railway Project | — | | 50.0 | 41.6 |
| 1348/e | 1983 | Lahore Urban Development | — | | 16.0 | 14.8 |
| 1350/e | 1983 | Population | — | | 18.0 | 14.9 |
| 1355/e | 1983 | Coal Engineering | — | | 7.0 | 6.5 |
| 1374/e | 1983 | Karachi Water Supply | — | | 25.0 | 22.9 |
| 1375/e | 1983 | Fourth Drainage | — | | 65.0 | 59.3 |
| 1380/e | 1983 | Agricultural Development (ADBP V) | — | | 47.8 | 21.3 |
| 2218 | 1983 | Refinery Engineering Project | 12.0 | | — | 9.5 |
| 2351 | 1984 | Petroleum Exploration | 51.5 | | — | 51.3 |
| 2374 | 1984 | Second Toot Oil and Gas Development | 30.0 | | — | 25.6 |
| 2380 | 1984 | Industrial Investment Credit | 50.0 | | — | 49.9 |
| 1439/e | 1984 | Industrial Investment Credit | — | | 50.0 | 47.2 |
| 1461/e | 1984 | Integrated Hill Farming Development | — | | 21.0 | 21.0 |
| 1480/e | 1984 | Second Technical Assistance | — | | 7.0 | 6.6 |
| 1487/c | 1984 | Command Water Management | — | | 46.5 | 46.5 |
| 1499/c | 1984 | Second Small Industries | — | | 50.0 | 50.0 |
| Total | | | 1,066.6 | 42.0 | 1,962.2 | 909.9 |
| of which has been repaid | | | 503.9 | 0.7 | 35.4 | |
| Total now outstanding | | | 562.7 | 41.3 | 1,926.8 | |
| Amount sold | | 23.9 | | | | |
| of which has been repaid | | 23.9 | — | — | — | — |
| Total now held by Bank and IDA/d | | | 562.7 | 41.3 | 1,926.8 | |
| Total undisbursed | | | 247.1 | 3.8 | 659.0 | 909.9 |

/a The status of the projects listed in Part A is described in a separate report on all Bank/IDA financial projects in execution, which is updated twice yearly and circulated to the Executive Directors on April 30 and October 31.

/b Excludes the disbursed portion of loans and credits wholly or partly for projects in the former East Pakistan which have now been taken over by Bangladesh.

/c Not yet effective.

/d Prior to exchange adjustment.

/e IDA Credits under the 6th Replenishment denominated in SDRs. The principal is shown in US$ equivalent at the time of negotiation. Disbursed amounts are computed at the market rate on dates of disbursements.

/f By using the market rate on dates of disbursements, the current principal for Credit 1066-PAK and Credit 1255-PAK (both fully disbursed) is $42.5 and $77.5, respectively.

B. STATEMENT OF IFC INVESTMENTS (as of September 30, 1984)

| Fiscal Year | Obligor | Type of Business | Amount In US$ Million Loan | Equity | Total |
|---|---|---|---|---|---|
| 1958 | Steel Corp of Pakistan Ltd. | Rolled Steel Products | 0.63 | — | 0.63 |
| 1959 | Adamjee Industries Ltd. | Textiles | 0.75 | — | 0.75 |
| 1962-1965 | Gharibwal Cement Industries Ltd. | Cement | 5.25 | 0.42 | 5.67 |
| 1963-1969-1975 | PICIC | Development Financing | — | 0.52 | 0.52 |
| 1965 | Crescent Jute Products | Textiles | 1.84 | 0.11 | 1.95 |
| 1965-1980-1982 | Packages Ltd. | Paper Products | 19.26 | 0.84 | 20.10 |
| 1967-1976 | Pakistan Paper Corp Ltd. | Paper | 5.38 | 2.02 | 7.40 |
| 1969 | Dawood Hercules Chemicals Ltd. | Fertilizers | 1.00 | 2.92 | 3.92 |
| 1979 | Milkpak Ltd. | Food and Food Processing | 2.40 | 0.37 | 2.77 |
| 1979 | Pakistan Oilfields Ltd. and Attock Refinery Ltd. | Chemicals and Petrochemicals | 29.00 | 2.04 | 31.04 |
| 1980 | Fauji Foundation | Woven Polypropylene bags | 1.78 | — | 1.78 |
| 1980 | Premier Board Mills Ltd. | Particle Board | 2.70 | — | 2.70 |
| 1981 | Habib Arkady | Food and Food Processing | 3.15 | 0.17 | 3.32 |
| 1982 | Asbestos | Cement | 4.05 | — | 4.05 |
| 1983 | Pakistan Petroleum Ltd. | Chemical and Petrochemicals | 86.05 | 1.56 | 87.61 |
| | Total Gross Commitments | | 163.24 | 10.97 | 174.21 |
| | Less: Cancellations, Terminations, Repayments and Sales | | 122.83 | 0.39 | 123.22 |
| | Total Commitments Now Held by IFC | | 40.41 | 10.58 | 50.99 |
| | Undisbursed (including participants) | | 67.12 | 0.33 | 67.45 |

# PAKISTAN

## LEFT BANK OUTFALL DRAIN PROJECT

## SUPPLEMENTARY PROJECT DATA SHEET

**Section I:** Timetable of Key Events

(a) Time taken by the Borrower to prepare the project:

Two years

(b) Agency which prepared the project:

WAPDA and GOSind assisted by consultants

(c) Date of first presentation to the Bank and date of the first mission to consider the project:

March 1981; March 1982

(d) Date of departure of appraisal mission:

January 1984

(e) Date of completion of negotiations:

October 1984

(f) Planned date of effectiveness:

March 30, 1985

**Section II:** Special IDA Implementation Action

In view of size and complexity, considerable staff involvement will be required over implementation period of eight years, and some staff will be required to administer impact evaluation study to be completed about four years after credit closing.

**Section III:** Special Conditions of Effectiveness

(a) Approval by ECNEC of the final umbrella PC-1 document (para. 57);

(b) Meeting of all conditions precedent to the effectiveness of other external financing agencies (para. 57);

(c) Establishment of PSC and IMO, and opening of Special Account (paras. 47 and 57);

Other Special Conditions

(a) Spinal drain to be completed by July 31, 1986 and Rohri canal remodelling benefits to be available to project area by January 1, 1990 (para. 46);

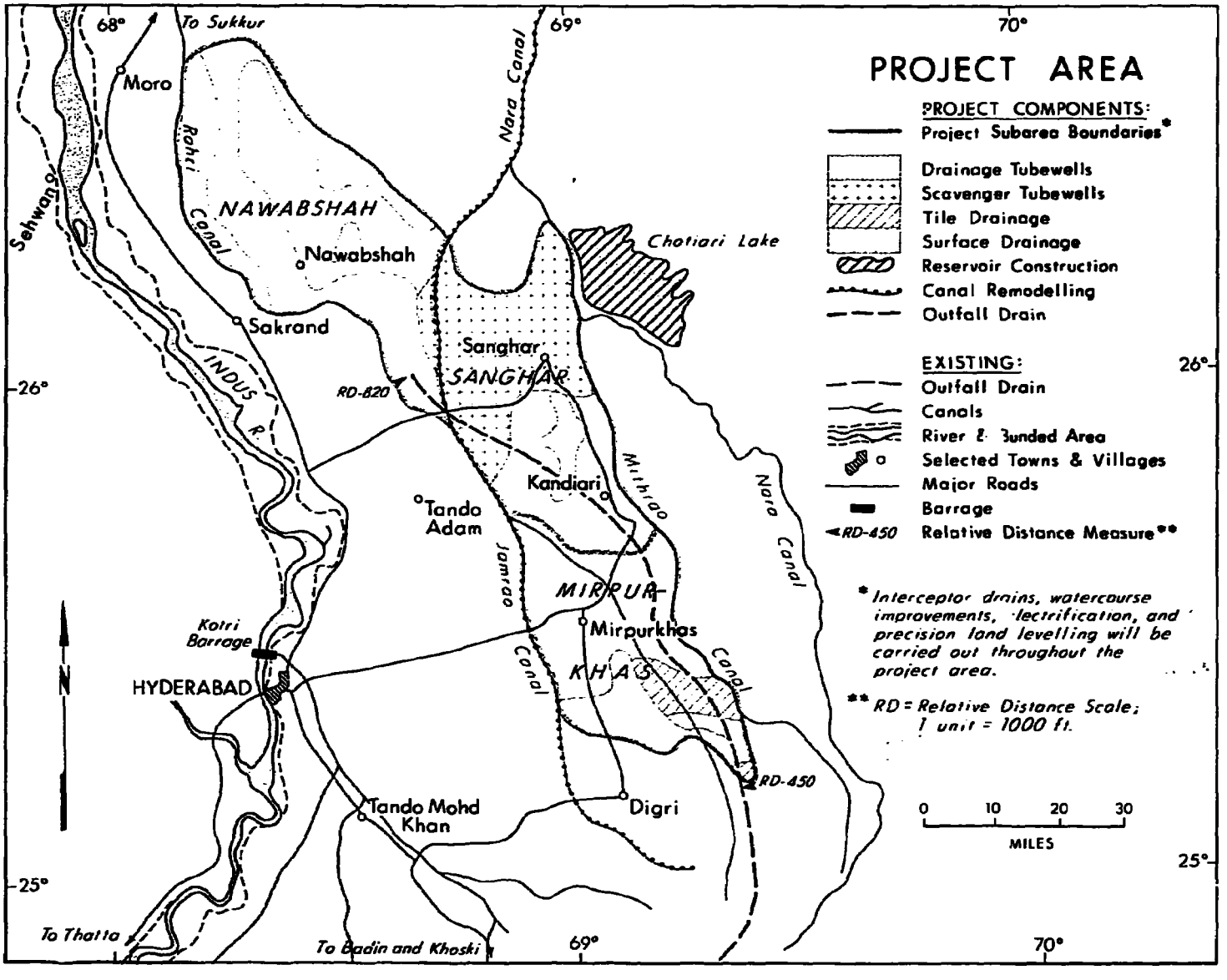
(b) GOSind to amend WUA Ordinance, or take other measures as necessary, by July 1, 1986 to cover drainage (para. 49);

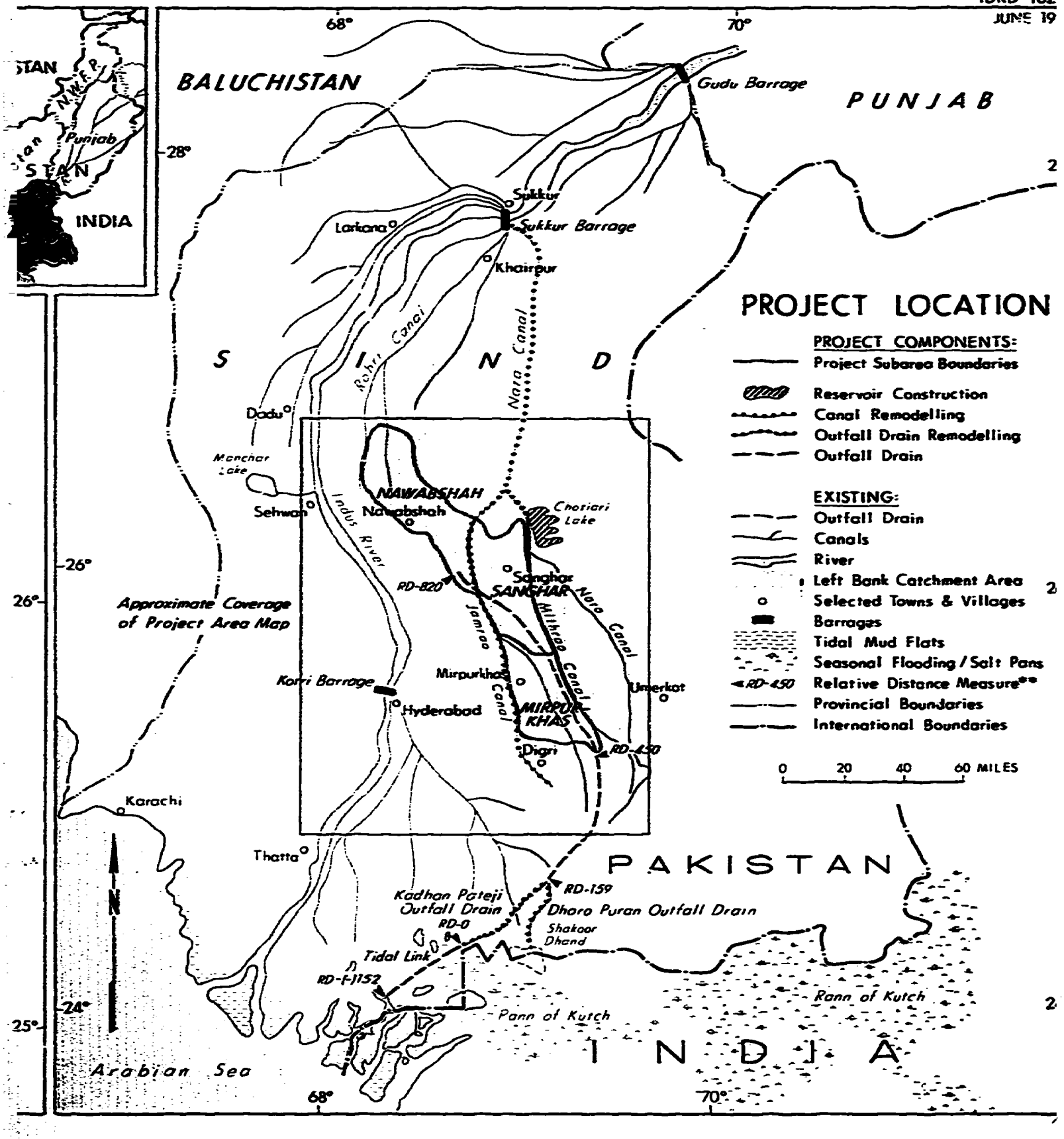
(c) GOSind to make available each year adequate funds to meet O&M requirements as determined by periodic independent review (para. 55); and

(d) GOSind to (i) collect drainage charge to cover 25% of O&M costs one year after completion of drainage system in given subarea, (ii) increase charge at least every two years so as to recover at least 50% of drainage O&M costs by July 1, 1995 and full drainage O&M costs by July 1, 2005, and (iii) review with IDA three months before initial levy and each increase actual benefits against projected benefits and proposed charges (para. 65).

# PAKISTAN
# LEFT BANK OUTFALL DRAIN STAGE I PROJECT

*This map has been prepared by The World Bank's staff exclusively for the convenience of the readers and is exclusively for the internal use of The World Bank and the International Finance Corporation. The denominations used and the boundaries shown on this map do not imply, on the part of The World Bank and the International Finance Corporation, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.*


PROJECT LOCATION
PROJECT COMPONENTS:
Project Subarea Boundaries
Reservoir Construction
Canal Remodelling
Outfall Drain Remodelling
Outfall Drain
EXISTING:
Outfall Drain
Canals
River
Left Bank Catchment Area
Selected Towns & Villages
Barrages
Tidal Mud Flats
Seasonal Flooding / Salt Pans
RD-450 Relative Distance Measure**
Provincial Boundaries
International Boundaries
0 20 40 60 MILES
BALUCHISTAN
PUNJAB
S I N D
PAKISTAN
I N D I A
Arabian Sea
Gudu Barrage
Sukkur
Sukkur Barrage
Larkana
Khairpur
Rohri Canal
Nara Canal
Dadu
Manchar Lake
Sehwan
NAWABSHAH
Nawabshah
Indus River
Chotiari Lake
Sanghar
SANGHAR
RD-820
Jamrao Canal
Nara Canal
Mithrao Canal
Mirpurkhas
MIRPUR KHAS
Umerkot
Kotri Barrage
Hyderabad
Digri
RD-450
Approximate Coverage of Project Area Map
Karachi
Thatta
N
Kadhan Pateji Outfall Drain
RD-0
Tidal Link
RD-159
Dharo Puran Outfall Drain
Shakoor Dhand
RD-1152
Rann of Kutch
Rann of Kutch
68°
70°
28°
26°
24°
25°