

Document of  
**The World Bank**

**FOR OFFICIAL USE ONLY**

*CA. 1533-PAK*

Report No. P-3892-PAK

REPORT AND RECOMMENDATION  
OF THE  
PRESIDENT OF THE  
INTERNATIONAL DEVELOPMENT ASSOCIATION  
TO THE  
EXECUTIVE DIRECTORS  
ON A  
PROPOSED CREDIT  
IN AN AMOUNT OF SDR 8.2 MILLION  
TO THE  
ISLAMIC REPUBLIC OF PAKISTAN  
FOR A  
BALUCHISTAN AGRICULTURAL EXTENSION AND ADAPTIVE RESEARCH PROJECT

November 20, 1984

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

### CURRENCY EQUIVALENTS

Currency Unit = Pakistan Rupee (Rs)  
US\$1 = Rs 14.0  
Rs 1 = US\$ 0.071

### FISCAL YEAR

July 1 - June 30

### ACRONYMS AND ABBREVIATIONS

ADA - Assistant Director of Agriculture  
AO - Agricultural Officer  
ATI - Agricultural Training Institute  
C&W - Communications and Works Department  
DDA - Deputy Director of Agriculture  
DGA - Director General of Agriculture  
ECNEC - Executive Committee of the National Economic Council  
FA - Field Assistant  
GOBAL - Government of Baluchistan  
SMS - Subject Matter Specialist  
SSMS - Senior Subject Matter Specialist  
T&V - Training and Visit (System of Agricultural Extension)

PAKISTAN

BALUCHISTAN AGRICULTURAL EXTENSION  
AND ADAPTIVE RESEARCH PROJECT

Credit and Project Summary

Borrower: Islamic Republic of Pakistan

Beneficiary: Province of Baluchistan

Amount: SDR 8.2 million (US\$8.3 million equivalent)

Terms: Standard

Relending Terms: From the Government of Pakistan to the Government of Baluchistan on standard IDA terms.

Project Description: The objectives of the proposed project are to achieve sustained increases in agricultural production in four districts of high agricultural potential in Baluchistan Province, through the strengthening and reorganization of the extension services along the lines of the Training and Visit (T & V) System and through the widespread adoption by farmers of proven and recommended improved farming practices. To achieve these objectives the project would include: (a) redeploying existing and recruiting new staff; (b) provision of necessary physical components, including offices, staff housing, vehicles and equipment; (c) the establishment of adaptive research farms; and (d) staff training and technical assistance to strengthen the institutions responsible for implementing extension and research activities in the Province. Other than the lack of training among staff and implementation capacity, the project faces no major risks.

Estimated Costs: a/

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	<u>US\$ million</u>		
Agricultural Extension	4.59	0.91	5.50
Adaptive Research	0.87	0.50	1.37
Staff Training	0.36	0.21	0.57
Project Administration	<u>1.28</u>	<u>0.49</u>	<u>1.77</u>
Base Cost	7.10	2.11	9.21
Physical Contingencies	0.55	0.14	0.69
Price Contingencies	<u>1.29</u>	<u>0.33</u>	<u>1.62</u>
Total Project Cost	<u>8.94</u>	<u>2.58</u>	<u>11.52</u>

Financing Plan

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	<u>US\$ million</u>		
Federal and Provincial Governments	3.22	-	3.22
IDA	<u>5.72</u>	<u>2.58</u>	<u>8.30</u>
Total	<u>8.94</u>	<u>2.58</u>	<u>11.52</u>

Estimated Disbursements:

	<u>FY85</u>	<u>FY86</u>	<u>FY87</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>
	<u>US\$ million</u>					
Annual	0.7	1.5	2.0	2.0	1.4	0.7
Cumulative	0.7	2.2	4.2	6.2	7.6	8.3

Appraisal Report: No. 5201-PAK dated October 12, 1984

Map: No. IBRD 18315R1

a/ Taxes and duties amount to about US\$0.6 million.

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  
BALUCHISTAN AGRICULTURAL EXTENSION AND ADAPTIVE RESEARCH PROJECT

1. I submit the following report and recommendation on a proposed credit of SDR 8.2 million (US\$8.3 million equivalent) to the Islamic Republic of Pakistan on standard IDA terms to help finance a Baluchistan Agricultural Extension and Adaptive Research Project. The proceeds of the credit would be passed on to the Government of Baluchistan on standard IDA terms.

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 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

---

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.

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 essen-

tially 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; reclaiming land by controlling salinity and waterlogging; and providing essential facilities including tubewells, livestock development and dairy processing. 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 (IDBF), 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\$174.21 million, of which US\$163.24 million was by way of loans and US\$10.97 million by equity participations (these are shown in Annex II). About US\$51.0 million of these investments remained outstanding. The enterprises assisted by IFC include two each in the field of paper products, textiles, cement, food and food processing, and petrochemicals, and one each in steel, fertilizers, 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

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 AGRICULTURAL SECTOR

#### Agriculture

29. Agriculture is the single largest sector in Pakistan's economy accounting for about one-third of GDP, employing about half of the total labor force and providing, directly or indirectly, about two-thirds of export earnings. In the late 1960s, agricultural production grew at a rate of about 6% annually, but this growth slowed to a little over 2% annually during much of the 1970s. Political turmoil during 1971 and 1972, adverse weather conditions (disastrous floods in 1973 and 1976 and severe drought in 1975), inadequate price incentives, deterioration in agricultural supporting services, short supplies of agriculture inputs, inefficient water management, and continuing problems associated with water logging and salinity were the major factors contributing to this disappointing performance. Agricultural growth, however, increased from 2.5% in FY78 to 4.5% during the 1980s. Although much of this recovery can be attributed to favorable weather conditions, improvement in the Government's price support policies and increased supply of fertilizers are believed to have made significant contributions.

30. With a total geographical area of 347,000 sq.km., Baluchistan is Pakistan's largest but least developed province. Agriculture contributes about 56% to the province's GDP, and provides livelihood to some 65% of the total labor force. The population of 4.3 million represents only 5% of the national total and is predominantly nomadic and tribal, with 80% living in rural areas. According to the 1981 census, there are some 202,000 farms, of which 63% are smaller than 5 ha and make up over 20% of the cultivated area. The predominant tenure pattern is owner-operated (78%), with owner-tenant operated farms and landless tenants accounting for 7% and 15%, respectively.

#### Agricultural Extension

31. Agricultural extension services are entirely within the provincial domain and vary considerably between provinces in size, scope and methodologies used. Except for the few districts covered by projects aimed at improving the extension organization in each province, the services are largely ineffective, generally employing outdated extension methods, and these efforts are diluted by heavy burdens of unrelated non-extension duties. Staff numbers are for the most part inadequate, and

facilities with respect to staff accommodation and mobility are such as to make wide and effective farmer contact difficult. Extension workers rarely receive in-service training to keep them abreast of technological advances. The extension/research dialogue is often limited to a discussion of annual/seasonal work programs; two-way exchange of technical information lacks both institutional and policy support.

#### Government Policy and Bank Group Strategy

32. For agriculture, Pakistan's Sixth Five-Year Plan (1983-88) places great emphasis on the need to increase yields with a view to moving from self-sufficiency towards exports, especially of high-valued crops. While the Government's agricultural reform program has begun to address some of the issues constraining rapid agricultural growth much remains to be done, particularly with regard to investment priorities and improvements in physical and institutional infrastructure. Through its lending program and sector work, the Bank will continue to support the Government's efforts in the areas of water management, irrigation system rehabilitation, improved inputs, provision of credit and agricultural services (including extension), and institution-building at the federal and provincial levels.

33. To ensure that the increased provision of public services and infrastructure leads to an efficient utilization of resources, input and output pricing policies and producer incentives are being reviewed with the support of the Bank Group. Moreover, improvements are possible in the formulation of a program of public investments in agriculture. Such a program would include striking an appropriate balance between rehabilitation and maintenance of existing facilities and new investments in irrigation, and between investments in irrigation/drainage and supporting services; implementing measures to increase the role of the private sector in fresh groundwater developments; the phasing out of subsidies; the strengthening of agricultural support services; and improving current capital cost recoveries.

#### Role of the Bank in Agricultural Extension

34. With regard to agricultural extension, the Bank is currently supporting two projects in Pakistan, the "Punjab Extension and Agricultural Development Project" (Credit 813-PAK of June 8, 1978) and the "Sind Agricultural Extension and Adaptive Research Project" (Credit 922-PAK of June 12, 1979). Both projects aim at reorganizing and strengthening the extension service through the introduction of the

Training and Visit (T&V) system<sup>1/</sup> which has proven successful in other countries. The Punjab project covers five of the province's 22 districts, and that in the Sind five of the 13 provincial districts. Both projects had late starts due to, among other problems, a poor understanding of the T&V system; delays in relieving extension staff from non-extension duties and in appointment of technical assistance personnel; low pay preventing recruitment of staff; inadequate travel allowances reducing staff mobility; weak research and extension linkages; inadequate funding in the Annual Development Program (ADP); and poor monitoring and evaluation. However, positive steps have been taken by concerned authorities, and the main outstanding problems are now of a lesser administrative nature, including still unfilled staff positions at the Field Assistant (FA) level; however, it is expected that the recent revision in government pay scales will help solve this problem.

35. In the project areas of the Punjab and Sind, a sound base for an improved extension service is now in place, with visits to farmers being conducted on a regular basis and fortnightly training firmly established and producing appropriate and timely messages to cultivators. In the Punjab, the adaptive research work is of high quality with location specific trials being carried out on adaptive research farms and in farmers' fields. The appropriate linkages with research have been established and timely and pertinent messages based on adaptive research findings now reach the farmers. In the Sind, adaptive research is now underway and has been carried out on micronutrient deficiencies, which has led to the inclusion of recommendations for the application of zinc to rice and has already brought substantial increase in paddy yields. Monitoring is operative in both projects, and several management-oriented reports have been prepared which cover the regularity and effectiveness of FA visits. These signs are encouraging and indicative of the potential of the improved extension system once the teething problems have been resolved. Nevertheless, in the presence of an entrenched bureaucracy, institutional change takes time. The new system of extension calls for attitudinal changes on the part of extension staff, farmers, agricultural research workers and Government officials, both within and outside of the Department of Agriculture. Given these circumstances, firm commitment at Government level and strong departmental management are also central to successful implementation. Both these preconditions to success are now firmly established in the two provinces. The Punjab project is scheduled for completion in December 1985. Based on the preliminary findings of an independent assessment of the project, the provincial government has decided to proceed with the expansion of the area covered by improved

---

<sup>1/</sup> The principles of this system have been described in Benor and Harrison, "Agricultural Extension - The Training and Visit System", World Bank, May 1977, and more recently in Benor and Baxter, "Training and Visit Extension", World Bank, March 1984.

agricultural extension, and a second phase project is currently under preparation. Also, in the Sind preparations have started for a follow-on project to expand the area covered by the T&V System.

36. The proposed project has been designed so as to build on experiences gained in the ongoing Punjab and Sind projects as well as the emerging extension strategy in Pakistan. The implementation problems faced in the Punjab and Sind (see paragraph 34 above) have been taken into account in the design of the proposed project, and the administrative and organizational structures, as well as staffing patterns, introduced in the two ongoing projects have been modified as necessary to suit local conditions.

#### PART IV - THE PROJECT

37. The project would be the third IDA-assisted operation designed to reorganize and strengthen agricultural extension in Pakistan following the Training and Visit system (T&V). Encouraged by the good results from these projects and elsewhere where the T&V system has been operating, the Government of Baluchistan in 1983 requested the Association's assistance in introducing reorganized extension into Baluchistan, starting with four districts. An FAO/World Bank Cooperative Program mission assisted the Government of Baluchistan in preparing a project proposal in September 1983.

38. The project was appraised in April 1984. Negotiations were held in Washington, D.C. from September 18-20, 1984; the Pakistan delegation was led by Mr. S.R. Poonegar, Additional Chief Secretary, Government of Baluchistan. A Staff Appraisal Report entitled "Pakistan - Baluchistan Agricultural Extension and Adaptive Research Project" (Report No. 5201-PAK, dated October 12, 1984) is being circulated separately to the Executive Directors. A supplementary project data sheet is attached as Annex III.

#### Project Objectives and Rationale for Bank Involvement

39. The objective of the project would be to achieve sustained increases in agricultural production in four districts of high agricultural potential in Baluchistan through the strengthening and reorganization of the extension service on the lines of the T&V system and the widespread adoption by farmers of proven and recommended improved farming practices.

40. In addition to supporting the Sixth Plan's strategy for the agricultural sector (paragraph 32), the project would assist the Government in strengthening and upgrading the quality of agricultural extension and research services. The experience and know-how gained by the Bank in developing the extension services (notably the T&V system) and adaptive research, which have been used with success in many countries, would be passed on to Baluchistan through the project. The Provincial

Government's proposed plan to reorganize the Department of Agriculture, aimed at rendering it more effective, together with the establishment of research-extension linkages (paragraph 65), would also have a beneficial effect on non-project districts and would provide a basis for future expansion of extension and research activities to the rest of the Province.

#### Project Area Characteristics

41. The project area, comprising the administrative districts of Loralai, Kachhi, Nasirabad and Lasbela have been selected for their agricultural potential. The districts chosen account for some 62% of the province's irrigated farmland (372,000 ha out of a provincial total of 598,000 ha) and only about 6% of the cropped land is under rainfed conditions. They also contain the main fruit growing areas and the farms responsible for producing the majority of oilseeds and pulses. In addition, all districts are well served with roads and have easy access to seed and fertilizer outlets of neighboring Sind and Punjab provinces. These project districts are further subdivided into 18 tehsils and 10 sub-tehsils with 1,865 villages.

42. Loralai District is located in the northeast of the province, bordering on the Punjab and the NWFP, with a mean annual rainfall of some 330 mm. Kachhi and Nasirabad Districts are contiguous and bordering Sind province in the east. Both districts are partly irrigated by the Pat Feeder and Kirthar Canals. Annual rainfall is about 60-100 mm. Lasbela District lies on the coast in the south near Karachi with a sub-humid climate and mean annual rainfall of about 200 mm. The project area, which accounts for some 16% of Baluchistan's geographical area, 52% of its cultivated area and almost 60% of its annually cropped land, supports 30% of the total population and about 34% of the farming households in the province.

43. Wheat, rice and sorghum are the three major crops in the project area, covering almost three-quarters of the cropped land. Ninety-seven percent of the rice is grown in Nasirabad District and the remainder in Kachhi District, where sorghum is the main foodgrain. Other important crops in the project area include pulses, oilseeds, fodder and fruit. Castor represents about one-third of oilseed production, all of which is grown in Lasbela District where it ranks after sorghum only in importance. Virtually all fruit is grown in Loralai District.

#### Project Components

44. Extension Methodology. Under the project, agricultural services would be reorganized and intensified in the four project districts following the T&V system, which has been suitably adapted to meet local conditions. Project staffing improvements would be phased over a three-year period. The project would provide farmers, on a regular and sys-

tematic basis, with up-to-date advice on farming practices best suited to their specific conditions with the emphasis on proven practices which have an immediate impact on income. This would be brought about by organizing extension field staff so that they visit farmers regularly and receive systematic training and technical support from the Department of Agriculture and from research institutions.

45. Each Field Assistant (FA) would be assigned to work with a number of farm families. The number would vary depending on local conditions, population density, cropping intensity and accessibility. Based on available statistics, one FA would cover, on average, about 400 operating farm families in all project districts except for Loralai where, without adding any new staff, this ratio already stands at one FA per 260 farm families. Because of the large number of widely scattered pockets of high potential land (particularly horticulture), the FA to farmer ratio would be more intense in Loralai than in the remainder of the project area

46. To reach farmers systematically, each FA would divide the farmers in his jurisdiction into groups out of which he would select contact farmers as the principal channel for conveying extension messages to other farmers. Contact farmers would be from all levels of village society and would be selected for their potential influence and willingness to collaborate with the extension service in following recommendations. Changes in contact farmers would be made, especially between seasons, in order to reach more farmers over time, or if such contact-farmers prove to be ineffective or wish to discontinue this service. FAs, during their field visits, would make special efforts to reach all contact farmers' fields; the latter, in turn, would share the responsibility of organizing and attending meetings or other village group activities. FAs would also invite neighboring farmers while meeting contact farmers in their fields, and visit other farmers' fields while moving from one contact farmer to another. Work schedules for FAs visits, which would be made known to all farmers in their respective operating areas, would be worked out in a manner to allow the FA to visit each of the groups for a full day once every fortnight on the same day of the week. FAs would visit fields during morning hours, and in the afternoon either hold meetings in the village at a predetermined time or hold discussions with farmers. During each visit, FAs would concentrate their efforts on a few strategically selected recommendations relevant to that particular phase of the crop cycle. The extension message to be communicated to farmers at the initial stage would be simple, concentrating on the few important crops in the locality and on the most important aspects of crop production practices at that time. Initially, the emphasis would be on low-cost improvements which the majority of farmers can afford within their resource capabilities.

47. This visit schedule would engage the FAs for four days a week. One of the two remaining work days each week would be devoted to in-service training, which is crucial to the program, and the other to super-

vising field trials, arranging special activities, and completing office work. In-service training would be conducted either by the team of Subject Matter Specialists (SMSs) at the training center located at the Assistant Director's headquarters or by the supervising Agricultural Officer (AO). Through these training sessions, FAs would learn what to recommend to farmers in the next period of visits and also bring farmers' problems to the attention of the trainers. While this close ongoing relationship between FAs and AOs would relieve the former of the need for formal reporting, both would, nonetheless, maintain a diary of activities. The project would provide consultancy services of an agriculturalist experienced in the operation of the T&V system to help draw up work schedules, select contact farmers, and assist project management in introducing the operation of the T&V system.

48. Each AO would supervise about three FAs and provide them with necessary technical support. In addition to their supervisory and training duties, due to the prevailing land tenure and cropping patterns in the project area which manifest in relatively highly developed farms and numbers of well-educated landlords, AOs would be required to provide advice to these larger farmers. It would also be the responsibility of the AO to monitor the timely supply of inputs and credit and to report any shortages to the supply organizations concerned. Like the FA, the AO would spend eight days each fortnight in the field on farm visits. In addition, two days would be spent at the fortnightly training session and in meeting with FAs to review field experiences, deal with administrative matters and provide additional training if required. The remaining two workdays in each fortnight would be devoted to extra visits, demonstrations and other field activities. The project would provide the services of a consultant to define the scope of work and method of operation of AOs and FAs taking account of land tenure arrangements and farming needs.

49. To provide for regular training, continuous technical guidance (particularly to large farmers) and to ensure proper operation of field work, two or three administrative sub-divisions would be established in each project district, each headed by an Assistant Director of Agriculture (ADA). The ADA would spend at least three days a week on field visits to review both technical and organizational aspects of the work of extension staff in his sub-division. During his visits, he would ascertain whether visits are being made as planned, inquire from farmers about visit days in their villages, messages learned, etc., and make adjustments as necessary. Experience in districts in the ongoing projects has shown that once farmers become aware of visit schedules, they themselves become effective monitors by speaking out if visits are not made regularly and in a satisfactory manner. The ADA is also the organizer, convenor and leader of the fortnightly training sessions, which would occupy part of his remaining time; the balance would be devoted to administration.

50. A Deputy Director of Agriculture (DDA) would be responsible for the extension service at the district level. The districts of Kachhi and

Nasirabad, which are adjacent, have similar cropping patterns and until recently were one district, would be jointly managed under the DDA located in Nasirabad. The project would provide one team of two to four SMSs for each district; SMS subjects would include agronomy, agricultural engineering, plant protection or horticulture, depending upon the specific needs of each district. The SMS would devote about one-third of his time to field visits providing technical support and guidance to FAs and AOs, one-third in building a stock of knowledge through regular dialogue with research workers and by carrying out farm trials, and one-third on training extension staff, principally at fortnightly training sessions. One SMS in each district would be designated Training Coordinator and would be responsible for the planning and organization (including substance and material) of fortnightly training sessions. At the provincial level, a team of four Senior Subject Matter Specialists (SSMS) would provide greater depth of support and training to district level SMSs and handle specializations not covered by them.

51. At the provincial headquarters in Quetta, the Director of Extension, in charge of both agricultural research and extension, would be exclusively responsible for the day-to-day operations of the entire provincial extension service. He would be assisted by a Project Coordinator (a new post to be created under the project) and would assume responsibility for carrying the administrative burden resulting from the intensive development envisaged under the project.

52. At present, in addition to their extension duties agricultural extension staff are responsible for several unrelated tasks, including crop spraying, fertilizer distribution and data collection. It is the policy of the Government of Baluchistan to divest itself of the responsibility for the distribution of agricultural inputs and to allow the private sector to provide these services. This policy, however, will take time to fully implement and the Department of Agriculture is still engaged in the distribution of some fertilizer (about 30%), and wholly responsible for the distribution of seeds, pesticides and crop sprayers. The remaining fertilizer requirements are met by local agents of private fertilizer companies and the National Fertilizer Corporation (NFC). As this policy is gradually implemented, extension staff would be relieved of all non-extension duties. The Government of Baluchistan (GOBAL) would prepare a plan and timetable acceptable to the Association for relieving extension staff of these duties (Section 2.11 of the draft Project Agreement).

53. Staffing. Staff requirements to operate the reorganized and strengthened extension system would be met by redeploying existing and recruiting new staff. The additional 46 FAs required under the project would be recruited and, together with existing staff not having had formal extension training (see paragraph 59), would be trained at the Agricultural Training Institute (ATI) at Quetta, starting in late 1984. GOBAL would be required to ensure that project staff be given priority for training at the ATI (Section 2.12 of the draft Project Agreement). Since

Baluchistan has no agricultural university, the seven additional AOs required would be recruited from about 25 Baluchistani students graduating each year from Tandojam, Faisalabad and Peshawar Agricultural Universities. There should be no problems in recruiting for these posts over the project period since employment opportunities for agricultural graduates are limited.

54. Under the project, a new position, Director General of Agriculture (DGA), would be established; the DGA would coordinate the Directorates of Agricultural Extension and Agricultural Research, a function presently performed by the Secretary for Agriculture. Other posts to be filled include a Director of Agriculture, three Deputy Directors of Agriculture (DDA) at the district level, and five Assistant Directors of Agriculture (ADA) at the sub-divisional level. These officers, as well as SMSs and SSMSs, would be recruited through advertising by the Public Service Commission or through direct promotions from within the Department of Agriculture on a seniority-cum-merit basis. The appointment of the DGA would be a condition of credit effectiveness (Section 2.07(a) of the draft Project Agreement and Section 5.01(d) of the draft Development Credit Agreement); all other key incremental project staff would be appointed in accordance with a schedule satisfactory to the Association (Section 2.09 of the draft Project Agreement).

55. Staff Housing and Other Buildings. It is generally difficult to find housing in the more remote rural areas of Baluchistan. However, because of the high cost, experience of non-utilization of housing provided under the ongoing projects, and the need to streamline those investment packages not absolutely essential to extension effectiveness, the construction of staff houses has been kept at the bare minimum and, where possible, extension staff would continue to use existing facilities. The project would provide housing for about 30% of the FAs where alternative accommodation is not presently available; an extra room added to the house would serve as office-cum-store. Additional housing would also be provided for senior extension staff and for professional staff at the three adaptive research farms (paragraph 57). Office accommodation is at a premium in Baluchistan and the project would provide office facilities for the DGA and his staff at Quetta, for Deputy Directors at district headquarters, for ADAs and AOs in the districts, and for staff at the adaptive research farms. Offices for the ADAs would include training facilities in which to hold, inter alia, the fortnightly training sessions.

56. Staff Transport. Under the project, the mobility of extension staff would be improved through the provision of vehicles (including operating costs) and travel allowances. A total of two cars, seven pick-up trucks and 17 four-wheel drive vehicles would be provided for use by headquarter staff, SMSs, DDAs and ADAs. Motorcycles (233 in total) would be sold to FAs and AOs on credit, repayable through salary deductions in 48 equal monthly installments. Since staff would be paying for these

motorcycles they would be given the opportunity to select brands of their choice, but size would be limited to up to 100cc for FAs and 125cc for ADs. In order to ensure future staff mobility, the replacement of motorcycles would be financed through a vehicle revolving fund established from loan repayments. The real value of the fund would be maintained by including necessary financing in the extension service operating budget. So that staff are able to travel according to their work schedules, vehicle O&M and staff travel allowances need to be maintained at adequate levels. Accordingly, GCBAL would be required to: (i) establish and maintain the vehicle revolving fund on terms and conditions satisfactory to the Association; (ii) set and maintain the travel allowance and vehicle O&M allowance for project staff at levels satisfactory to the Association; (iii) review such allowances from time to time with the Association; and (iv) ensure that sufficient funds for such allowances are made available in the budget (Sections 2.13 and 2.14 of the draft Project Agreement).

57. Adaptive Research. Most adaptive research would take place in farmers' fields, and the project would provide inputs to support these field trials. To ensure that agricultural research findings are adapted to the agro-climate and socio-economic conditions prevailing in project districts, the project would establish, equip and staff three adaptive research farms. These 20 ha farms would also provide a demonstration to field staff of improved farming practices, and each would be located in agro-climate conditions typical of the districts. The sites of the farms have all been identified and are on existing Government land. Acquisition of all land for the project would be done in accordance with a schedule satisfactory to the Association (Section 3.05 of the draft Development Credit Agreement).

58. Each farm would be provided with tractors, implements, tools and research equipment; farm buildings and staff housing would be constructed on the sites. Staff would comprise SMSs, Assistant Research Officers (AROs), and FAs. It will take some time for the adaptive research organization to be established under the project to produce results suitable for incorporation in extension messages. Since farming practices of better farmers constitute the best proven technology available for any given situation, these would largely form the basis for developing the first generation of extension messages (supplemented by any existing results from research) to be disseminated to farmers. The project would provide consultancy services to assist in developing procedures for collection of data and preparation of first generation extension messages together with the information needed for planning and implementation of the adaptive research program. This consultancy would also help in the identification and planning of relevant applied research, working together with the Arid Zone Research Institute and the Agricultural Research Institute of Quetta.

Training and Technical Assistance

59. Regular training is considered a fundamental and important part of the T&V extension service, and a variety of formal and in-service training programs for extension staff would be provided under the project. At present, some 75% of in-post FAs in the project districts have not undergone formal ATI training. Pre-service training at ATIs throughout Pakistan follows a national curriculum, and FAs are not considered qualified extension workers until they have undergone this training. With priority given to project staff (see paragraph 53), and with the start of operations at the ATI in Quetta scheduled for the autumn semester of 1984, it would take until the end of the spring semester of 1988 before all project FAs would be fully trained. In the interim, and until such times as FAs are able to gain entry to the ATI, short courses of three months' duration would be given to all untrained FAs at the ATI. Training would cover basic agronomy of crops grown in project districts, paying particular attention to information to be passed on to farmers in the form of extension messages and their presentation. The underutilized accommodation and teacher capacity at the ATI during the 1984/85 school year would permit the holding of all FA short courses there. To help meet these training requirements, the project would provide the ATI with additional equipment and materials.

60. Orientation workshops would be held for senior staff on various project-related topics including: operation of the adaptive research program and the T&V extension system; general management principles; media production; farm management; message analysis; and monitoring and evaluation. All these workshops would be given by consultants to be provided under the project. To help remedy the acute shortage of agriculturists with MSc training in Baluchistan, who are needed to fill the SMS and other senior staff positions in the project, 20 scholarships would be provided for two-year MSc courses at universities in Pakistan in subjects relevant to the needs of the project. In order to learn from the experience of others involved in reform of extension services elsewhere, study tours would be arranged under the project to other provinces in Pakistan and to neighboring countries with operational T&V systems. Study tours to international research centers would also be provided for research workers.

61. To assist in carrying out the project, some 77 man-months of consulting services would be provided, covering such areas as extension methodology, development of adaptive research programs, monitoring and evaluation, and training. GOBAL would be required to employ consultants on terms and conditions satisfactory to the Association, and the signing of contracts for consulting services would be a condition of credit effectiveness (Section 2.02 of the draft Project Agreement and Section 5.01(c) of the draft Development Credit Agreement).

### Monitoring and Evaluation

62. Under the project, data would be generated to measure output, effect and impact of project actions, thus providing management guidance to those responsible for implementation. Monitoring, by continuous gathering of information on project inputs and activities (timely provision of staff, vehicles and equipment) would be maintained, and a benchmark study undertaken to establish data on the agricultural conditions of farmers, agricultural practices used, current use of inputs and credit and crop yields. A series of regular and ad hoc studies would be undertaken to evaluate the quality of training programs, development of appropriate recommendations, regularity and quality of farm visits, adoption of recommendations, increased production and consequent increases in farm incomes. Monitoring and evaluation (M&E) in project districts would be the responsibility of the Planning and Development Cell of the Department of Agriculture, which would be strengthened through the recruitment of an economist, two officers and three investigators. Under the project, consultant services to help organize and execute the M&E activities and vehicles and funds to cover costs associated with carrying out of studies and related field work would be provided. GOBAL would be required to complete benchmark studies in project districts by July 31, 1986; monitor project activities and progress on a semi-annual basis; and, starting in FY86, carry out evaluation studies each fiscal year in a form acceptable to the Association and forward the results to the Association once a year (Section 2.15 of the draft Project Agreement).

### Project Implementation and Organization

63. To ensure continuing coordination between extension and research, the project would be implemented under the overall responsibility of the Director General Agriculture (DGA). The DGA would report directly to the Secretary of Agriculture and Cooperatives, and would be assisted by a Director of Agricultural Research and a Director of Extension. The Director of Extension, assisted by a Project Coordinator with responsibility for planning, coordination and day-to-day implementation matters, would be in charge of the entire extension service in the province.

64. The building component would be implemented by the Communications and Works Department (C&W). Since these works are scattered over four districts, a Civil Works Coordinator, located in the C&W Department, would be responsible for the implementation of the building program. He would make necessary payments, collect bills and certificates of payments made from field offices, and prepare and submit withdrawal applications to the Association. The appointment of both the Project Coordinator and the Civil Works Coordinator would be conditions of credit effectiveness (Section 2.07 of the draft Project Agreement and Sections 5.01(e) and (f) of the draft Development Credit Agreement).

65. The reorganization of the extension service in project districts and at headquarters, with well-defined responsibilities and a single line of command, and the establishment of research-extension linkages, would help ensure the successful implementation of the project. To complement these changes, however, it is necessary to look at the overall organization of the Department of Agriculture in order to provide a sound organization for the coordinated agricultural development of the province. Under the project, and with consultant assistance, a study would be undertaken of the present Department of Agriculture's organization, and a plan developed to render the Department more effective. GOBAL would prepare this plan for discussion with the Association by December 31, 1985, and thereafter implement the agreed plan (Section 2.10 of the draft Project Agreement).

#### Project Coordination

66. Many government departments and agencies are directly involved in or affected by agricultural extension activities. As was done in the ongoing Punjab and Sind extension projects, and in order to involve these various department and agencies and provide overall guidance to the project, a Project Steering Committee would be established. The Committee, to be chaired by the Additional Chief Secretary of the Planning and Development (P&D) Department, would be comprised of the Secretaries of Agriculture, Finance, Local Government, Communications and Works, P&D, Services and General Administration, Irrigation, and Livestock. The DGA would also serve as a member. The Committee would, on an ad hoc basis, meet from time to time to review progress under the project and to give broad implementation direction. More specific guidance at the working level would be the responsibility of a Project Review Committee, chaired by the Secretary of Agriculture with membership drawn from the Departments of Extension and Research, Training and Publicity, Agriculture, Irrigation, and Communication and Works. The Project and the Civil Works Coordinators would also serve on the Committee, as would representatives of the Cooperative Societies, the Directorate of Agricultural Engineering, the Agricultural Development Bank of Pakistan, various commercial banks, and input service organization. The Committee would meet on a regular basis before each of the main cropping seasons to review achievements in the previous season and set guidelines for future operations. At the field level, District Advisory Committees would be established in each of the project districts to review operations, bring problems to the attention of the relevant DDA, and obtain advice on actions needed to improve the effectiveness of the extension service. The Committee would be chaired by the Deputy District Commissioner, and membership would be composed of senior District officials of the same organizations represented in the Project Review Committee as well as selected farmers.

### Linkages between Extension and Research

67. Since neither research nor extension can function efficiently without close cooperation, it would be necessary to formalize the responsibilities of both agencies. The research institutes would assume full responsibility for the development of suitable new technology, while the extension service would have the responsibility for the transfer of technology to farmers, including the widespread testing of research recommendations on farmers' fields. Strengthening of the arrangements for close coordination between research and extension would be promoted in two ways. Firstly, the appointment of the Director General Agriculture would ensure close cooperation and coordination at the Departmental level and be further strengthened by the steering, review and advisory committees; secondly, various Technical Committees would be established to deal, inter alia, with matters pertaining to research programs and priorities. At the Provincial level, the Technical Committee would be chaired by the Director General Agriculture and would include among its members the Directors of Extension and Research, SSMSs, and senior staff of various relevant research institutions. The Committee would meet twice annually and would provide a formal mechanism for the review of research and field trials and of future research programs and recommendations brought to it by the District Technical Committees. The District committees, each chaired by the concerned DDA and comprised of district field staff, research workers, SMSs, farmers' representatives and irrigation/water management field staff, would meet at least twice a year to review agricultural practices, including identification of research priorities and adaptive trial needs, and make recommendations to the Provincial Technical Committee. GOBAL would establish and maintain, in accordance with a schedule and with membership and responsibilities satisfactory to the Association, the Project Steering, Project Review, District Advisory, and Technical Committees (Section 2.08 of the draft Project Agreement).

### Project Costs and Financing

68. Total project costs over the five-year period are estimated at Rs 161 million (US\$11.5 million equivalent), with a foreign exchange component of US\$2.6 million. Duties and taxes amount to about US\$0.6 million. Physical contingencies (7% of base costs) have been applied to equipment, training materials and furniture (7%), civil works (10%) and other cost items (5%). Costs have been calculated in mid-1984 prices, with price contingencies on foreign costs of 5.75% for 1984, increasing to 8.25% in 1988/89, and 8% on local costs for 1984, decreasing gradually to 6% in 1988/89.

69. The proposed IDA credit of US\$8.3 million equivalent would finance the full foreign exchange costs of US\$2.6 million, and US\$5.7 million equivalent of local costs. The remaining costs (including taxes and duties) would be financed by the Government of Pakistan through the Special Baluchistan Development Program. Retroactive financing of up to

US\$500,000 would be provided to cover expenditures incurred after June 30, 1984, including training and procurement of training equipment, consultant's services and incremental staff salaries.

#### Special Account

70. Since the Government of Pakistan has experienced difficulties in providing adequate and timely financing for its development projects, and in order to speed up IDA resource transfers to Pakistan and reduce the time lag between commitments and disbursements, a Special Account would be established at the federal government level with the State Bank of Pakistan with two sub-accounts (one for each implementing agency) in Baluchistan. Withdrawals from these sub-accounts would be made by the Communications and Works Department for civil works, and the Department of Agriculture for other eligible project expenditures. The procedures for operation of these accounts would be similar to those followed under other IDA-assisted projects in Pakistan (Cr. 1163, 1375, and 1487-PAK). The operation of this system of accounts would be made in accordance with procedures satisfactory to the Association, and the establishment of the Special Account and the sub-accounts would be conditions of credit effectiveness (Sections 2.02(b) and (c), and 5.01(b) and Schedule 3 of the draft Development Credit Agreement).

#### Procurement 1/

71. Because civil works (estimated total costs: US\$5.6 million) associated with the project would be small, remote and dispersed both geographically and over time, ICB would not be practical. Accordingly, contracts would be let following local competitive bidding (LCB) procedures satisfactory to the Association. The local construction industry is well developed and adequate competition would be offered. Where no responsive bids, or any bids at all, are received for individual contracts, they would be carried out through force account. Equipment, tools, books, agricultural inputs, materials and furniture (estimated total cost: US\$290,000) would be procured following local procedures satisfactory to the Association. Motorcycles (estimated total cost: US\$250,000), to be sold to staff on credit, would be procured, consistent with the choice of and size allowed to the staff concerned, in accordance with procedures satisfactory to the Association including, inter alia, price quotations from local and international sources. Prior review by the Association would only be required for the first local civil works and supply contracts and all subsequent contracts of US\$100,000 or more. The appointment of consultants (estimated total cost: US\$867,000) would be done in accordance with the Bank's guidelines. Training, incremental staff salaries and operation and maintenance costs (estimated total cost:

---

1/ All figures include contingencies.

US\$4.07 million) would be handled in accordance with normal Government practices.

72. Recently the Government has become more reluctant to allow the import of vehicles (and certain other goods) in favor of those locally produced or assembled, and has prepared a list of goods which may not be imported without a special "No Objection Certificate" (NOC) from the Ministry of Production. Given previous difficulties experienced in obtaining NOCs for the import of goods awarded to foreign suppliers under ICB, vehicles (excluding motorcycles) required for the project would be treated as reserve procurement and would not be reimbursable out of the proceeds of the credit. GOBAL would provide, in accordance with a schedule satisfactory to the Association, all vehicles needed for the project (Section 2.09 of the draft Project Agreement). Procurement procedures are summarized below:

Procurement Method 1/  
(US\$ million)

<u>Component</u>	<u>LCB</u>	<u>Other</u>	<u>N.A.</u>	<u>Total Cost</u>
Civil Works	5.63 (4.50)	-	-	5.63 (4.50)
Vehicles	0.25 (0.25)	0.41 (-)	-	0.66 (0.25)
Equipment, Tools, Materials, Agri- cultural Inputs, Furniture and Books	-	0.29 (0.28)	-	0.29 (0.28)
Technical Assistance	-	0.87 (0.87)	-	0.87 (0.87)
Training, salaries and allowances; operation and maintenance	-	-	4.07 (2.40)	4.07 (2.40)
<b>Total</b>	<u>5.88</u> (4.75)	<u>1.57</u> (1.15)	<u>4.07</u> (2.40)	<u>11.52</u> (8.30)

1/ Figures in parentheses are amounts to be financed out of the credit.

Disbursements

73. Disbursements from the credit would be made against 80% of expenditures for civil works; 100% of foreign expenditures on directly imported, 100% of the ex-factory price of locally manufactured, and 60% of local expenditures (off-the-shelf) for equipment, materials, furniture, tools, agricultural inputs, books and motorcycles; 100% of expenditures

for consultants, training and travel allowances; and 50% of incremental staff salaries and other operating costs.<sup>1/</sup>

74. Disbursements for: (i) civil works contracts not exceeding Rs 300,000 and those through force account; (ii) locally procured equipment, materials, furniture, tools, agricultural inputs, and books costing Rs 150,000 or less; and (iii) training, staff salaries and allowances and other operating costs, would be made against certified statements of expenditure; supporting documents would be retained by the implementing agencies for review by the Association. Disbursements for other items would be fully documented. For civil works, incremental staff salaries and allowances and other operating costs to be funded through the Special Account, reimbursement procedures would follow the usual model form for special accounts/revolving funds. The final disbursement for the project would be expected to be completed by June, 1990, about one year after project completion. The six-year disbursement period is about two years shorter than that for a typical agricultural project in the Region. This time difference is due to the small volume of simple procurement and civil works, against which most disbursements would be made and which would occur early in the project implementation cycle; in addition, designs already exist for all buildings and the Special Account to be established would ensure adequate funding and speed-up disbursements.

#### Accounts and Audits

75. Each implementing agency would maintain separate project accounts which would be audited annually according to current practice. Audit reports would include a statement verifying that credit funds disbursed in advance for the Special Account and those reimbursed against statements of expenditures had been used for the project. These reports would be submitted to the Association by JOBAL no later than six months after the end of the fiscal year (Section 3.01 and 3.02 of the draft Project Agreement).

#### Project Benefits and Risks

76. Benefits. Attributing a precise level of benefits to this type of project is difficult since it is not possible to determine what proportion of benefits are due to extension and adaptive research efforts and what are due to additional purchase inputs and other factors. In practice, it is the combination of a number of factors, with adaptive research and extension playing the role of a catalyst, that brings the desired benefits. It is also difficult to estimate acceptance rates of recommended practices. However, since the project relies primarily on

---

<sup>1/</sup> Representing an average for declining rates over the five-year project period (starting in 1984/85) of 80%, 65%, 55%, 45% and 35%.

reorganization and strengthening of an existing extension structure, the incremental cost is low. Even very small and slow production increases in the project area would generate a high rate of return. Due to the speculative nature of the results, no effort has been made to calculate a precise economic rate of return. However, in a sensitivity analysis, certain calculations have been made on the benefits required to justify the project investments. These calculations, based on economic values, show that overall yield increases of about 2.0% are required to justify project expenditures. This would amount to increases in wheat yields of about 35 kg/ha, or rice by 65 kg/ha, and of sorghum by 10 kg/ha. Yield increases of 3% would give an economic rate of return of over 20%. One significant feature of the system is that the practices initially stressed by the extension service focus on improving cultural practices (timely operations, good land preparation, proper seed rates, line sowing and weeding) to maintain adequate and healthy plant populations in the fields. As these operations usually involve more work and little cash outlay, they are particularly well suited to the needs of many small farmers.

77. Risks. The two main risks facing the project would be the lack of training among staff in the Baluchistan Department of Agriculture, and its capacity to implement the project. This is a general problem in Baluchistan for all development efforts, and is indicative of the province's backwardness relative to other provinces in Pakistan. In order to reduce this risk, strong emphasis has been placed on a staff training program under the project, including the training of senior staff. In addition, to compensate for the lack of training and management experience, a strong technical assistance component has been included in the project and the selection and availability of consultants provided for early on in project implementation. Experience in Pakistan has shown that project implementation is often delayed because of insufficient funding in the Annual Development Program (ADP). The Special Development Program, under which the project would be financed, is less constrained than the ADP and, in addition, the Special Account, into which credit proceeds are disbursed in advance, would help to minimize this risk.

78. Other risks appear to be minimal. Farmers' responsiveness to recommendations has been generally good wherever visits by extension staff are made systematically and where FAs have gained confidence in their own professional ability to introduce improved knowledge and skills. The ability of the service to develop and disseminate recommendations leading to yield increases well above the level needed for a satisfactory rate of return has been demonstrated adequately. Initially, in most situations, availability of suitable technology for different conditions has not been a constraint as there is a backlog of research findings as yet not widely adopted. This is not the case, however, in Baluchistan where research services have been slow to develop. Nevertheless, the province is well endowed with numbers of educated progressive farmers who consistently obtain yields well above average. Thus major yield increases are possible even in the process of bringing the production level of average farmers to

that of the best farmers. To reduce the risk of technological constraints lowering anticipated project benefits, the project supports programs of field testing of research results and development of strong working relationships between extension and the agricultural research institutes. Furthermore, the Agricultural Research Project (Cr. 1158-PAK) is directed at strengthening the agricultural research capabilities throughout Pakistan to ensure a continuous flow of recommendations adapted to specific regional problems.

#### PART V - LEGAL INSTRUMENTS AND AUTHORITY

79. The draft Development Credit Agreement between the Islamic Republic of Pakistan and the Association, the draft Project Agreement between the Association and the Province of Baluchistan, and the Recommendation of the Committee provided for in Article V, Section 1(d) of the Articles of Association are being distributed to the Executive Directors separately. Additional conditions of effectiveness would be approval by the Executive Committee of the National Economic Council (ECNEC) of the PC-1 document for the project<sup>1/</sup>; the establishment of the Special Account and sub-accounts; the appointment the Director General of Agriculture, the Project Coordinator and the Civil Works Coordinator; and the signing of contracts for consulting services.

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

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

#### PART IV - RECOMMENDATION

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

A.W. Clausen  
President

Attachments

November 20, 1984  
Washington, D.C.

---

<sup>1/</sup> A PC-1 (Planning Commission Proforma No. 1) is an internal government project appraisal document necessary for the Government of Pakistan's approval procedures.

TABLE 3A

PAKISTAN PAKISTAN	- SOCIAL INDICATORS DATA SHEET				
	REFERENCE GROUPS (WEIGHTED AVERAGES) /a				
	MOST RECENT ESTIMATE /b			(MOST RECENT ESTIMATE) /b	
	1960/b	1970/b		LOW INCOME ASIA & PACIFIC	MIDDLE INCOME ASIA & PACIFIC
<b>AREA (THOUSAND SQ. KM)</b>					
TOTAL	803.9	803.9	803.9	.	.
AGRICULTURAL	227.5	243.3	253.3	.	.
<b>GDP PER CAPITA (US\$)</b>					
	70.0	130.0	380.0	278.6	1091.2
<b>ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF OIL EQUIVALENT)</b>					
	98.0	139.0	179.0	272.0	567.3
<b>POPULATION AND VITAL STATISTICS</b>					
POPULATION, MID-YEAR (THOUSANDS)	45851.0	60449.0	87125.0	.	.
URBAN POPULATION (% OF TOTAL)	22.1	24.9	29.1	21.7	34.7
<b>POPULATION PROJECTIONS</b>					
POPULATION IN YEAR 2000 (MILL)			139.6	.	.
STATIONARY POPULATION (MILL)			377.3	.	.
POPULATION MOMENTUM			1.9	.	.
<b>POPULATION DENSITY</b>					
PER SQ. KM.	57.0	75.2	105.1	166.6	261.9
PER SQ. KM. AGRIC. LAND	201.5	248.4	333.6	345.5	1735.1
<b>POPULATION AGE STRUCTURE (%)</b>					
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
<b>POPULATION GROWTH RATE (%)</b>					
TOTAL	2.3	2.8	3.0	1.9	2.3
URBAN	4.6	4.0	4.3	4.1	4.3
<b>CRUDE BIRTH RATE (PER THOUS)</b>					
	48.6	46.6	42.0	27.7	30.1
<b>CRUDE DEATH RATE (PER THOUS)</b>					
	23.4	19.3	15.4	10.1	9.5
<b>GROSS REPRODUCTION RATE</b>					
	3.4	3.4	3.0	1.8	2.0
<b>FAMILY PLANNING</b>					
ACCEPTORS, ANNUAL (THOUS)	..	1908.1	1244.0 /c	.	.
USERS (% OF MARRIED WOMEN)	..	6.0 /d	..	..	52.7
<b>FOOD AND NUTRITION</b>					
INDEX OF FOOD PROD. PER CAPITA (1969-71=100)	89.9	102.0	105.0	112.8	123.0
<b>PER CAPITA SUPPLY OF</b>					
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
<b>CHILD (AGES 1-4) DEATH RATE</b>					
	25.4	21.0	16.8	9.8	7.2
<b>HEALTH</b>					
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
<b>ACCESS TO SAFE WATER (IPOP)</b>					
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
<b>ACCESS TO EXCRETA DISPOSAL (% OF POPULATION)</b>					
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
<b>POPULATION PER PHYSICIAN</b>					
	5400.0	4300.0/h	3480.0	3484.2	7749.4
<b>POP. PER NURSING PERSON</b>					
	16960.0	10580.0/h	5820.0	4793.1	2460.4
<b>POP. PER HOSPITAL BED</b>					
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
<b>ADMISSIONS PER HOSPITAL BED</b>					
	..	..	..	..	27.0
<b>HOUSING</b>					
<b>AVERAGE SIZE OF HOUSEHOLD</b>					
TOTAL	5.4	5.3	6.1 /c	..	..
URBAN	5.6	5.5	6.4 /c	..	..
RURAL	5.4	5.2	6.0 /c	..	..
<b>AVERAGE NO. OF PERSONS/ROOM</b>					
TOTAL	3.1	2.8 /i	..	..	..
URBAN	3.1	2.7 /i	..	..	..
RURAL	3.1	2.8 /i	..	..	..
<b>ACCESS TO ELECT. (% OF DWELLINGS)</b>					
TOTAL	..	17.9 /j	..	..	..
URBAN	..	54.4 /j	..	..	..
RURAL	..	4.9 /j	..	..	..

TABLE 3a

PAKISTAN PAKISTAN	- SOCIAL INDICATORS DATA SHEET				
	REFERENCE GROUPS (WEIGHTED AVERAGES) /a				
			(MOST RECENT ESTIMATE) /b		
	1960/d	1970/b	MOST RECENT ESTIMATE/b	LOW INCOME ASIA & PACIFIC	MIDDLE INCOME ASIA & PACIFIC
<b>EDUCATION</b>					
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 /d	24.0 /c	53.4	72.9
<b>CONSUMPTION</b>					
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 /d	2.2 /e	3.6	3.4
<b>LABOR FORCE</b>					
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	59.6	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
<b>INCOME DISTRIBUTION</b>					
PERCENT OF PRIVATE INCOME RECEIVED BY					
HIGHEST 5% OF HOUSEHOLDS	20.3 /f	17.8	..	..	22.2
HIGHEST 20% OF HOUSEHOLDS	45.3 /g	41.8	..	..	48.0
LOWEST 20% OF HOUSEHOLDS	6.4 /h	8.0	..	..	6.4
LOWEST 40% OF HOUSEHOLDS	17.5 /i	20.2	..	..	15.5
<b>POVERTY TARGET GROUPS</b>					
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.



ECONOMIC DEVELOPMENT DATA

	<u>GROSS NATIONAL PRODUCT IN 1982/83 /a</u>		<u>ANNUAL RATE OF GROWTH (% constant prices)</u>				
	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

	<u>Value Added</u>		<u>Labor Force /b</u>		<u>V. A. Per Worker</u>	
	\$ 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

	<u>General Government /d</u>			<u>Federal Government</u>		
	<u>(Rs billion)</u>	<u>% of GDP</u>		<u>(Rs billion)</u>	<u>% of GDP</u>	
	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 MLI 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	841	1,952	1,870
Official Gold (year end; million ounces)	1.8	1.8	1.8	1.8	1.9	1.9
<u>Fuel and Related Materials</u>						
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	1,277.6	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

US\$1 = Rs 4.7619  
Rs 1 = US\$0.21

From May 12, 1972-Feb. 15, 1973

US\$1 = Rs 11.00  
Rs 1 = US\$0.09

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

From Feb. 16, 1973-Jan. 7, 1982

US\$ 1 = Rs 9.90  
Rs 1 = US\$0.10

From July 1981-June 1982 /g

US\$1 = Rs 10.55  
Rs 1 = US\$0.095

From July 1982-June 1983 /g

US\$1 = Rs 12.75  
Rs 1 = US\$0.078

From July 1983-June 1984 /g

US\$1 = Rs 13.75  
Rs 1 = US\$0.073

/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.

STATUS OF BANK GROUP OPERATIONS IN PAKISTAN

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

Loan/ Credit Number	Fiscal Year	Purpose	(US\$ million)			
			(Amount net of cancellations)			
			Bank	IV	IDA	Undis- bursed
Ninety-five loans and credits fully disbursed /b			781.4	32.0	960.8/£	
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
2267	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
1263/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/e	1984	Command Water Management	—		46.5	46.5
1499/e	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.
- /£ By using the market rate on dates of disbursements, the current principal for Credit 1066-PAR and Credit 1255-PAR (both fully disbursed) is \$42.5 and \$77.5, respectively.

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

<u>Fiscal Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Amount Loan</u>	<u>In US\$ Equity</u>	<u>Million Total</u>
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	<u>86.05</u>	<u>1.56</u>	<u>87.61</u>
Total Gross Commitments			163.24	10.97	174.21
Less: Cancellations, Terminations, Repayments and Sales			<u>122.83</u>	<u>0.39</u>	<u>123.22</u>
Total Commitments Now Held by IFC			<u>40.41</u>	<u>10.58</u>	<u>50.99</u>
Undisbursed (including participants)			<u>67.12</u>	<u>0.33</u>	<u>67.45</u>

PAKISTAN

BALUCHISTAN AGRICULTURAL EXTENSION  
AND ADAPTIVE RESEARCH PROJECT

Supplementary Project Data Sheet

Section I: Timetable of Key Events

- (a) Time taken to prepare the project:  
18 months
- (b) Agency which prepared the project:  
Government of Baluchistan (GOBAL)
- (c) Date of first mission to consider the project  
September 1983
- (d) Date of departure of appraisal mission:  
April 1984
- (e) Date of completion of negotiations:  
September 1984
- (f) Planned date of effectiveness:  
April 1985

Section II: Special IDA Implementation Actions

None

Section III: Special Conditions

- (a) Vehicle revolving fund to be established and maintained (paragraph 56);

- (b) Vehicle O&M and staff travel allowances to be reviewed with the Association, and budget allocations made available (paragraph 56);
- (c) Monitoring and evaluation benchmark studies to be completed by July 31, 1986 (paragraph 62); and
- (d) Plan to streamline Department of Agriculture to be prepared by December 31, 1985 (paragraph 65).

The following would be additional conditions of effectiveness (paragraph 79):

- (i) approval by ECNEC of the PC-1 document for the project;
- (ii) establishment of the Special Account and sub-accounts;
- (iii) appointment of the Director General of Agriculture, the Project Coordinator, and the Civil Works Coordinator; and
- (iv) signing of contracts for consulting services.



