PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC25442

Project Name	PK-Balochistan Integrated Water Resources Management & Development Project (P154255)
Region	SOUTH ASIA
Country	Pakistan
Sector(s)	Irrigation and drainage (60%), Forestry (10%), Public administration-Water, sanitation and flood protection (10%), Water supply (10 %), Flood protection (10%)
Theme(s)	Natural disaster management (10%), Rural services and infrastructure (40%), Other rural development (10%), Climate change (10%), Wat er resource management (30%)
Lending Instrument	Investment Project Financing
Project ID	P154255
Borrower(s)	Economic Affairs Division, Government of Pakistan
Implementing Agency	Balochistan Irrigation Department, Government of Balochistan
Environmental Category	A-Full Assessment
Date PID Prepared/ Updated	14-Jan-2016
Date PID Approved/ Disclosed	15-Jan-2016
Estimated Date of Appraisal Completion	05-Feb-2016
Estimated Date of Board Approval	24-Mar-2016
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Pakistan is the world's 6th most populous country with 185 million people. GDP is USD 247 billion. The economy has faced severe challenges with low growth from 2008-11, high inflation (particularly for food) and widespread power shortages. Weak governance, political instability and insecurity impose costs on the Pakistan economy estimated at USD 4.7 billion annually. Unsustainable macroeconomic policies and the volatile security situation have depressed foreign investment and stifled regional trade.

Balochistan is Pakistan's largest (43 percent by area) but most sparsely populated province (~10

million inhabitants). It borders Afghanistan and Iran and has ~1,000 km of coastline extending much of the way to the strategically important Straits of Hormuz; it is thus well-situated for trade with Afghanistan, Central Asia, Iran and Persian Gulf countries. The province has huge deposits of coal, natural gas, oil, iron, gold and precious stones. Its strategic location and extensive natural resources make it a focus for conflict and power politics. In spite of its size, location and resources, Balochistan is Pakistan's least developed province. An estimated 47 percent of people live below the official poverty line (cf 33 percent nationally), annual per capita GDP is less than 60 percent of the national average, the literacy rate is 50 percent (cf 58 percent nationally) and less than 15 percent of people have access to clean water. Security difficulties cause a substantial "brain drain", and together with the sparse population and lack of infrastructure, mean the cost of delivering goods and services is very high. These factors coupled with limited investment and an absence of coordinated economic policy have led to economic stagnation in recent decades.

Sectoral and Institutional Context

Water is critical to the Pakistan economy, including for agriculture (22 percent of GDP and 45 percent of jobs) where irrigation represents 93 percent of total water use. In global terms however, Pakistan has low water availability per capita (~1,250 m3/year), high variability in water availability (within and between years) and very low water storage capacity (~12 percent of mean annual flow). The Indus River and associated alluvial groundwater systems are Pakistan's main sources of water, and most of the population and the majority of irrigated agriculture is found on the Indus Plain. The Indus Basin Irrigation System is the largest irrigation system in the world, and IBIS and hydropower development in the upper basin are the focus of most of water management and water policy debate in the country.

The Federal Ministry of Water and Power is responsible for water resources management and development at a national level. While there are relatively stable arrangements in place for the management of the Indus River (both internationally and nationally), there is no national water policy framework and no coordinated approach to guide the development and increasing critical reforms in the sector required to underpin national economic growth. A National Water Policy was drafted several years ago, but it is only very recently that the government is again considering how to progress in this sector. As in many federated systems, the Pakistan Constitution assigns policy and planning responsibilities for water to the provinces and irrigation and drainage are managed at this level; the Provincial Irrigation and Drainage Authority Act provides a framework for the establishment of provincial authorities, water boards and farmer organizations.

Balochistan Water Sector

Balochistan however, is different from the rest of Pakistan. Less than 40 percent of its available water is from the Indus River, and this fraction is only available to around 5 percent of the area of the province given the challenges of topography. Inadequate water distribution infrastructure means that less than half of the water available to Balochistan from the Indus is utilized. The largest usable water resource for the province is internal floodwater generated from intense but highly episodic rainfall that given the lack of significant water storage is harnessed for irregular "spate irrigation". Spate irrigation in the province is however, generally poorly managed and reliant on inadequate infrastructure meaning it is both relatively inefficient and unproductive. The nature of the climate also means that both extended droughts and destructive flash floods are relatively common, and are expected to worsen with future climate change. Groundwater is a small fraction of the overall resource but its comparative reliability means it is in high demand. In the absence of regulation or coherent management, groundwater that has fueled horticultural development (the most

economically important component of agriculture in Balochistan) and that supports most urban areas has been over-abstracted leading to major declines in groundwater levels.

In spite of its considerable mineral and energy resources and lack of reliable water, weak governance and a lack of investment mean the province is still highly dependent on agriculture (60 percent of provincial GDP and 67 percent of labor). Recent economic growth has been largely driven expansion of tube-well irrigation for high-value agriculture, especially horticulture (key agricultural products include wheat, apples, grapes, vegetables, barley, milk and meat). The majority of the rural poor in the Balochistan however, depend on unreliable surface water irrigation (either spate irrigation or rainfall harvesting), or livestock-based production across the extensive but relatively unproductive rangelands of the province.

While per capita water availability in Balochistan is well above the national average, this simply reflects the low population. Variability in water availability is far higher than the national average and per capita water storage is only 20 percent of the (grossly inadequate) national value. As a consequence, Balochistan is the least water-secure province in Pakistan, the most at risk from climate change, and the least able to cope with water-related development challenges. In the current context improving rural livelihoods and stimulating economic growth require vastly improved management of the scarce water resources of the province.

Balochistan Water Institutions

Water management in Balochistan is the responsibility of the Irrigation Department. The Balochistan Irrigation and Drainage Authority Act (1997) transformed the Irrigation Wing of the department into an autonomous authority for development and management of irrigation, drainage and flood control infrastructure. This Authority is responsible for making the irrigation and drainage network sustainable and for ensuring equitable distribution of irrigation water. It works to improve the efficiency of water utilization and to minimize drainage surplus, and has powers under the Canal and Drainage Act and under the Balochistan Groundwater Rights Administration Ordinance (1978, amended in 2000) to formulate and implement water policy.

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The Balochistan Water Users' Association Ordinance (1981) provides for the formation, operation and promotion of WUAs in the province; it makes it obligatory for farmers to organize themselves into WUAs for collective action including watercourse rehabilitation and ongoing maintenance. The Ordinance however, is only applicable to canal irrigation systems and not to the more widespread small-scale irrigation schemes operated by farmer organizations. Some limited efforts have been made to establish functioning WUAs outside canal irrigation areas, but much further effort is required to move towards provision of labor, cost-sharing, O&M cost-recovery and transferal of operation of local schemes to community groups. Women have very limited involvement in WUAs given the strict separation of men and women in most of rural Balochistan, the low social and economic status of most rural women, and their restricted mobility and lack of decision-making authority. In the long-term, finding appropriate entry points for changing the perceptions in rural Balochistan on the roles and abilities of women in general, and the opportunities for their contributions to improved community water management, will be critical.

Balochistan Water Policy

In 2006 the Government of Balochistan adopted an IWRM Policy developed with ADB-supported technical assistance. The policy describes the provincial situation of severe water scarcity, inefficient and profligate usage, prolonged droughts and the dire consequences for rural livelihoods

and economic growth. It is organized into 16 “thrust areas” for improving and sustaining the management of surface and groundwater resources. The policy identifies numerous studies required to fill important knowledge gaps, critical capacity gaps, regulatory reforms and institutional reforms. While useful progress has been made in the last decade with outside assistance in undertaking many of the identified studies, the fundamental required changes identified in the policy have not been tackled. The primary reasons for the lack of substantive progress are (i) the lack of any national framework or national political push for water sector reform, (ii) the highly political nature of water in the province and the lack of real political will and (iii) the lack of technical and policy capacity within government to change from within. Recent relative improvements in the security situation and political stability, together with the relative success of the recently completed Balochistan Small Scale Irrigation Project (BSSIP) that trialed irrigation aspects of the IWRM Policy in the Pishin Lora River Basin, have significantly increased the government appetite for tackling water reform. As noted earlier, there is also now a changing mood and perspective at the national level that can provide encouragement and stronger direction to the provincial process. The key issues identified in the IWRM Policy that will be targeted through this project include: (i) establishing adequate and reliable water data, (ii) improving coordination between the water and agricultural sectors, (iii) adopting an integrated approach to project formulation and to project M&E, (iv) improving irrigation water use efficiency, (v) improving groundwater recharge through watershed management and water conservation, and (vi) ensuring effective participation of water users and other stakeholders in water management. These will provide a solid foundation for the longer-term reforms required, a road-map for which will be developed during the project.

Relationship to CAS

The Project will contribute to result areas 2 and 3 in the Pakistan CPS including Outcome 2.2: Increased Productivity in Farms in Selected Irrigation Scheme (which includes prioritizing water resource management and community water supply) and Outcome 3.3: Increased Resilience to Disasters in Targeted Regions (which includes improved management and increased protection). In addition, the CPS stresses the importance of climate change resilience to Pakistan under the cross-cutting area of Climate Change Adaptation and Mitigation in Public and Private Sectors, focusing on energy, water and agriculture investments.

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II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

To improve water resources monitoring and management by the Balochistan Irrigation Department, and to increase adoption of water-efficient practices and technologies by water users in targeted communities, in focused areas of the Nari and Porali basins of Balochistan.

Key Results (From PCN)

Progress towards achieving the PDO will be measured by the following key performance indicators: (i) direct project beneficiaries (~705,000), of which female (50%); (ii) River basin information systems developed and actively maintained by relevant agencies; (iii) water users adopting new/ improved irrigation and drainage services (~38,000); (iv) farm households adopting improved agricultural technologies (~16,000) and (v) people better protected from floods (~82,000).

III. Preliminary Description

Concept Description

The Project will improve water resource management through promotion of integrated river basin management to equitably distribute water for economic development, environmental sustainability and improved livelihoods. Integrated river basin management informed by stakeholder participation and scenario assessments for alternative climate change futures will guide equitable water distribution for sustainable growth. The Project will focus on improved water use efficiency in agriculture (the highest and most inefficient use sector). In a water-scarce province water savings will become increasingly important given expected reductions in availability under future climate change.

The Project will begin developing the professional and institutional capacity for IWRM and will support the collection, management and use of hydromet data. The core of the Project however, will be quick-impact sub-projects implemented with active participation of beneficiaries, to address current deficiencies in irrigation (both infrastructure and on-farm water management) and water supply and current problems of flood damage and watershed degradation.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	×		
Natural Habitats OP/BP 4.04	×		
Forests OP/BP 4.36	×		
Pest Management OP 4.09	×		
Physical Cultural Resources OP/BP 4.11	×		
Indigenous Peoples OP/BP 4.10		×	
Involuntary Resettlement OP/BP 4.12	×		
Safety of Dams OP/BP 4.37		×	
Projects on International Waterways OP/BP 7.50	×		
Projects in Disputed Areas OP/BP 7.60		×	

V. Financing (in USD Million)

Total Project Cost:	253.74	Total Bank Financing:	205.56
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	10.11
International Development Association (IDA)	205.56
International Fund for Agriculture Development	38.07
Total	253.74

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