

# INTEGRATED SAFEGUARDS DATA SHEET CONCEPT STAGE

Report No.: ISDSC13250

**Date ISDS Prepared/Updated:** 05-Mar-2016

**Date ISDS Approved/Disclosed:** 08-Mar-2016

## I. BASIC INFORMATION

### A. Basic Project Data

<b>Country:</b>	Pakistan	<b>Project ID:</b>	P154255
<b>Project Name:</b>	PK-Balochistan Integrated Water Resources Management & Development Project (P154255)		
<b>Task Team Leader(s):</b>	Mahwash Wasiq, Muhammad Riaz		
<b>Estimated Appraisal Date:</b>	22-Feb-2016	<b>Estimated Board Date:</b>	02-Jun-2016
<b>Managing Unit:</b>	GWA06	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	Irrigation and drainage (60%), Forestry (10%), Public administration- Water, sanitation and flood protection (10%), Water supply (10%), Flood protection (10%)		
<b>Theme(s):</b>	Natural disaster management (10%), Rural services and infrastructure (40%), Other rural development (10%), Climate change (10%), Water resource management (30%)		
<b>Financing (In USD Million)</b>			
Total Project Cost:	253.74	Total Bank Financing:	205.56
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			10.11
International Development Association (IDA)			205.56
International Fund for Agriculture Development			38.07
Total			253.74
<b>Environmental Category:</b>	A - Full Assessment		
<b>Is this a Repeater project?</b>	No		

### B. Project Objectives

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.

### **C. Project Description**

The Project will begin the transformation of water management in Balochistan from a narrow irrigation project focus, to an integrated multi-sectoral river basin planning and development approach. It will achieve this through institutional restructuring and strengthening, investments in hydro-meteorological data and water information systems, and priority infrastructure investments in irrigation, potable water supply, flood protection, watershed and rangeland management.

For the Nari Basin (69,224 km<sup>2</sup>) and the Porali Basin (11,616 km<sup>2</sup>) all Project sub-components will be implemented. For the Pishin Lora Basin (16,671 km<sup>2</sup>) only sub-components A3 (Installation and Operation of Hydro-meteorological System) and sub-component B4 (Watershed & Rangeland Management and Environmental Protection) will be implemented. In addition, the project activities following an integrated water resources management approach, promoting: (i) water savings technologies in irrigated agriculture such as utilization of high efficiency irrigation system, promotion of land leveling which is the largest user of water, thereby improving soil and water availability; (ii) improved agriculture practices and promotion of drought tolerant cropping varieties and other productivity enhancement techniques related to pest management will improve soil and water conservation; (iii) better decision making by the farmers in better crop selection choices, based on analysis of soil, improved water availability, and weather advisories; (iv) improved watershed and rangeland management technologies to improve soil moisture retention, reducing erosion and improving groundwater recharge; and promoting conservation of two important ecosystems in Balochistan, namely the Juniper forest in the catchment areas of Nari river basin and the Mangroves forest in the delta of Porali river basins. These activities not only have a positive impact on the environmental sustainability but also builds resilience to climate change and associated impacts of floods and drought.

### **III. PROJECT DESCRIPTION**

#### **Component A: IWRM Institutions, Capacity and Information**

Total Base Cost US\$27.54M, IDA US\$27.54M

This component will lay the foundation for a gradual transition to IWRM in Balochistan. It supports institutional restructuring, professional development, installation and operation of hydro-meteorological systems, and establishment of river basin information systems and decision support systems. The project will establish a hydro-meteorological observation network in the three project river basins including telecommunication equipment, software for data transmission and analyses, storage conversion of the data into the needed information and training in network operation and maintenance (O&M). A flood early warning system will be installed and operated based on real-time data collection and transmission. Appropriate institutional arrangements for IWRM will be determined and progressively implemented during the Project. Significant investment will be made in professional development to enable a transition to IWRM including new and more effective institutions capable of robust water resources planning and management. A Water Resources Center of Excellence will be established, most likely hosted by a local university or existing technical institution.

#### **Component B: IWRM Sub-projects**

Total Cost US\$213.20M, IDA US\$203.09M, Beneficiaries US\$10.11M).

This component will support implementation of IWRM sectoral investments in Nari and Porali

basins within a framework of community mobilization and participation. Investments will include: construction and/or rehabilitation of irrigation and potable water supply facilities; flood protection infrastructure; watershed and rangeland management and environmental protection works; and on-farm water management and agricultural productivity activities.

Sub-component B1 Community mobilization will promote “grass roots” organizations and facilitate participatory skills development. Farmer organizations, water user associations, agricultural development groups and forest user groups will be established. Beneficiary farmers will contribute in-kind with labor for cost sharing of the development work.

Sub-component B2 Eight irrigation and sixteen potable water supply sub-projects will be implemented: four each in the Nari and Porali basins, spanning ~128,000 ha and benefiting ~48,100 households. Development work will include remodeling of the headwork and secondary canals, command area development in perennial irrigation, spate irrigation (Sailaba) and rainwater harvesting (Khushkaba) irrigation areas, and construction of access farm tracks. The Project will support construction and rehabilitation of sixteen village water supply schemes providing potable water supply to ~4,200 households.

Sub-component B3 High-intensity rain in the steep upper catchments generates high-energy flash flooding. There has been very limited investment to-date in flood protection; there is a dire need for flood protection works in five districts in the Nari basin and in two districts in the Porali basin. These works will protect ~14,600 ha of farmland and ~4,100 low-income family homes benefitting ~10,200 households, as well as protecting 31 km of village roads (with 18 bridges and culverts) and various irrigation infrastructure.

Sub-component B4 will support a participatory approach to (i) watershed management (at the river basin and irrigation scheme levels), (ii) rangeland management focusing on highland pasture and biomass production and (iii) environmental protection including enlargement and conservation of protected juniper and mangrove forests. Watershed management activities will be undertaken in all three Project river basins, including soil and water conservation measures, rainwater harvesting and plantations. At the irrigation scheme level, watershed management will include drainage improvement, soil and water conservation measures and rehabilitation/protection of irrigable land degraded/endangered by erosion gullies. Rangeland management will introduce rotational grazing and stocking rate limits. Environmental protection will be guided by land use surveys in all three target basins to identify potential areas for protection. Mechanisms will be developed to enable sustainable local use of juniper forests and in the lower Nari and Porali basins mangrove protection will be a key priority. Total sub-component beneficiaries are ~280,000.

Sub-component B5 will improve on-farm and field irrigation water efficiency and farm productivity. Matching grants will be given to service providers and farmers for high-efficiency irrigation systems, land leveling, farm machinery and diverse training. Training will encompass improved water management technologies, improved crop management including Integrated Pest Management and crop diversification, exposure visits, training for women in agriculture and livestock, and on the job and off-site training for project/department staff. Total beneficiaries for this component are ~20,000 (within irrigation beneficiaries).

Component C: Project Management & Technical Assistance

Total Costs US\$25.11M, IDA US\$25.11M

This component will support project management, monitoring and evaluation and studies. The

component will finance expenditures associated with overall project implementation costs including incremental costs associated with PMU and the PIUs, Project Supervision and Implementation Assistance (PSIA) consultants, Monitoring and Evaluation (M&E) consultants, and implementation of Management Plans and Strategic Studies including Environmental Management Plan, Social Management Plan, Gender Action Plan, and strategic studies. Study tours will also be included with piloting of new technologies and others that may be identified during project implementation, as well as feasibility studies for other potential river basins.

#### **D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The proposed project is to be implemented in three river basins of Pishin-Lora, Nari and Porali in the water stressed and highly arid region of Balochistan. All the selected basins are overdrawn, with high levels of groundwater extraction combined with old-styled irrigation practices. The selected basins are home to unique and fragile ecosystems. Ziarat district, located at the confluence of Pishin-Lora and Nari river basins, is host to the second largest Juniper Forests in the world. Porali river basin drains into Arabian Sea, supporting the mangrove forests located at the coast of Lasbela district. All the three basins have large tracts of rangelands and pastures that support the local livestock population as well as wild ungulate populations. There are four wildlife sanctuaries and two game reserves in Pishin-Lora Basin, two wildlife sanctuaries and one game reserve in Nari, and one wildlife sanctuary in Porali Basin. Since the project aims to increase cultivated area, possible water storage and diversion, and building new irrigation schemes, there is a high possibility of forest and/or pasture land conversion, decreased freshwater input to mangrove forests, and possible introduction of newer crop varieties, for all of which, detailed analysis of impacts is required. Also, with drought mitigation and flood protection measures in plan, there will be positive impacts to the environment as a whole, which need to be amplified and ensured.

#### **E. Borrowers Institutional Capacity for Safeguard Policies**

Balochistan Irrigation Department of the Government of Balochistan will be the lead implementing agency and has already implemented Balochistan Small Scale Irrigation Bank funded project in the recent past. Overall the department has a limited capacity to plan and implement Safeguard requirements. It will therefore need considerable support for capacity development to implement the project safeguards requirements.

#### **F. Environmental and Social Safeguards Specialists on the Team**

Abdelaziz Lagnaoui (GEN06)

Chaohua Zhang (GSU06)

Maqsood Ahmed (GSU06)

## **II. SAFEGUARD POLICIES THAT MIGHT APPLY**

<b>Safeguard Policies</b>	<b>Triggered?</b>	<b>Explanation (Optional)</b>
Environmental Assessment OP/BP 4.01	Yes	The project Investments will include construction and/or rehabilitation of irrigation and potable water supply facilities; flood protection infrastructure; watershed and rangeland management and environmental protection works; and on-farm water management and agricultural productivity activities in a water-stressed area. Implementation of sub-projects will also have

		construction-related environmental impacts such as air quality deterioration, water and soil contamination, land use and land form changes, and impacts on biological resources. This policy is therefore triggered to carry out detailed environmental assessment and prepare environmental monitoring and mitigation plan.
Natural Habitats OP/BP 4.04	Yes	This policy is triggered because of the potential environmental impacts of project activities on the natural habitats and protected areas in the selected river basins. The EIA will identify and delineate any areas of critical habitat and ensure application of the mitigation hierarchy in accordance with this policy for all project works
Forests OP/BP 4.36	Yes	<p>The proposed project will be developed in proximity of natural forest areas and rangelands. Yet it is too early to know at this stage whether interventions could affect the rights and welfare of people dependent on forests and if this would bring changes in the management, protection, and utilization of natural forests. OP/BP 4.36 is triggered as a precautionary measure, and also to improve forest conservation.</p> <p>Juniper forests in Ziarat and Mangrove forests at the coast of Lasbela may be affected due to project interventions. Rangelands are also classified as forest area by the Balochistan Forest Department.</p>
Pest Management OP 4.09	Yes	Sub-component B5 will improve on-farm and field irrigation water efficiency and farm productivity. This may lead to crop diversification and hence a potential change in crop management practices. The project is not contemplating procurement of any kind of pesticides but will focus on delivering targeted training that will encompass improved water management technologies and improved crop management practices, including Integrated Pest Management. Pest Management Training modules will be part of the project's subcomponent.
Physical Cultural Resources OP/BP 4.11	Yes	The policy on Physical Cultural Resources (OP 4.11) applies given the uncertainty at this stage regarding the exact locations of activities to be carried out under the project. Some forests or landscapes concerned by the project might be considered to have historical or cultural significance such as spirit forests, sacred valleys or other features of the natural

		landscape. The EIA will include specific provisions to assess the potential impacts on forests, sacred valleys or landscapes considered to have historical or cultural significance. The EIA will also include provisions for the treatment of physical cultural resources that may be discovered during project implementation (chance finds).
Indigenous Peoples OP/BP 4.10	No	Basin-wide social assessments and scheme-wise social impact assessments in the first year program have been conducted. They indicate that there are no indigenous people as defined in OP 4.10 reside in the project basins and therefore the policy is considered not triggered.
Involuntary Resettlement OP/ BP 4.12	Yes	The overall project design and implementation has adopted a programmatic approach. Accordingly, a Resettlement Policy Framework has been developed to guide resettlement planning for the various schemes to be identified, designed and implemented under the project. At the same time, a few schemes have been designed in detail for implementation in the first year of the project. For these schemes, social impact assessments have been carried out and a Social Impact Assessment and Mitigation Plan is being developed. This plan documents the SIA findings, socioeconomic baseline, impact assessments, mitigation measures, stakeholder participation, grievances and implementation arrangements.
Safety of Dams OP/BP 4.37	No	This policy is not triggered as the project will not support the construction or rehabilitation of dams nor will it support other investments which rely on the services of existing dams.
Projects on International Waterways OP/BP 7.50	Yes	Because the project activities are implemented in the Pishin Lora (TBC) and Nari basin, which are international waterways, the International Waterways Policy (OP 7.50) may be triggered. Works will be limited to installation of hydro-meteorological stations and watershed range land management, neither of which will adversely affect the quality or quantity of water flows to downstream riparians' or be adversely affected by other riparians' water use. Exception to riparian notification as per paragraph 7 (a) of OP7.50 will be sought from SARVP
Projects in Disputed Areas OP/ BP 7.60	No	The project is not located in Disputed Areas as defined in the Bank policy.

### III. SAFEGUARD PREPARATION PLAN

<sup>1</sup> Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

**A. Tentative target date for preparing the PAD Stage ISDS:** 18-Jan-2017

**B. Time frame for launching and completing the safeguard-related studies that may be needed.**  
**The specific studies and their timing<sup>1</sup> should be specified in the PAD-stage ISDS:**

January 2016

#### **IV. APPROVALS**

Task Team Leader(s):	Name: Mahwash Wasiq, Muhammad Riaz	
<b><i>Approved By:</i></b>		
Safeguards Advisor:	Name: Zia Al Jalaly (SA)	Date: 08-Mar-2016
Practice Manager/ Manager:	Name: Ousmane Dione (PMGR)	Date: 08-Mar-2016