



## Pakistan: Khyber Pakhtunkhwa Water Resources Sector Project

Project Name	Khyber Pakhtunkhwa Water Resources Sector Project								
Project Number	47024-001								
Country	Pakistan								
Project Status	Closed								
Project Type / Modality of Assistance	Technical Assistance								
Source of Funding / Amount	<table border="1"><tr><td colspan="2"><b>TA 8488-PAK: Preparing MFF Khyber Pakhtunkhwa Water Resources Sector</b></td></tr><tr><td>Technical Assistance Special Fund</td><td>US\$ 1.00 million</td></tr><tr><td colspan="2"><b>TA 8488-PAK: Khyber Pakhtunkhwa Water Resources Sector (Supplementary)</b></td></tr><tr><td>Multi-Donor Trust Fund under the Water Financing Partnership Facility</td><td>US\$ 200,000.00</td></tr></table>	<b>TA 8488-PAK: Preparing MFF Khyber Pakhtunkhwa Water Resources Sector</b>		Technical Assistance Special Fund	US\$ 1.00 million	<b>TA 8488-PAK: Khyber Pakhtunkhwa Water Resources Sector (Supplementary)</b>		Multi-Donor Trust Fund under the Water Financing Partnership Facility	US\$ 200,000.00
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth								
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships								
Sector / Subsector	<b>Agriculture, natural resources and rural development</b> - Irrigation								
Gender Equity and Mainstreaming	Some gender elements								
Description	The PPTA shall design an investment project for increased farm incomes and incomes of non-farm households engaged to agriculture in arid areas in the KPP through the following outputs : (i) Increased water supply capacities in arid areas; (ii) Increased water-use and farm-management capacities in arid areas; and (iii) Efficient and effective project management system. The impact of the proposed project is increased farm incomes and incomes of non-farm households engaged to agriculture in arid areas in KPP. The outcome is increased agriculture productivity in arid areas.								

Pakistan's population during the last three decades has increased from 65 million to 180 million and is expected to further increase to 234 million by 2025. About 68% of the rural population depends on agriculture, which employs over 46% of the labor force and accounts for more than 60% of Pakistan's foreign exchange earnings. Khyber Pakhtunkhwa Province (KPP) has a population of more than 25.3 million in 2011 and is expected to further increase to 34.5 million by 2025, considering the current population growth rate of 2.8% per annum. About 80% of the population is dwelling in rural areas and over 75% of the population is at least partly dependent on agriculture for their livelihood in KPP. About 25% of the country's land, which is suitable for intensive agriculture, is subject to flooding, water logging, salinity and reduction in soil fertility, and in particular the non-availability or limited availability of irrigation water. From about 79.61 million hectares (ha) of the total land of Pakistan, almost 68 million ha of land (85.4%) receive less than 300 millimeters rainfall annually, and thus about 80% of the arable lands in Pakistan are entirely dependent on irrigation. In KPP, although it has 10.17 million ha of land, only about 16.6% of land is cultivable, of which over 50% is already irrigated and about 15% is used for rain-fed crops and about 30% is fallow.

Pakistan faces a number of serious issues in the irrigated agriculture and water resource (IAWR) sector, such as (i) deteriorating and inefficient irrigation infrastructure; (ii) poor capacity of irrigation service delivery; (iii) low water-use efficiency and water productivity; (iv) over-exploitation and deteriorating quality of groundwater; and (v) declining storage capacity. KPP is no exception. The Comprehensive Development Strategy (CDS) 2010-2017 in KPP highlighted key issues in the IAWR sector. From the water-supply side, these are (i) water scarcity and a lack of effort in water conservation; (ii) inequitable water supply distribution and low cost recovery, which has resulted in deferred maintenance; (iii) limited institutional capacity to manage irrigation systems; and (iv) limited funding availability. From the water-use side, these are rain-fed agriculture and poor irrigated agricultural management practices.

Improving the IAWR sector is a key priority for the Governments of Pakistan and KPP. \_Pakistan in the 21st Century: Vision 2030\_ recognizes the issues in the IAWR sector and suggests the strategic approach to promote the concept of \_More Crop per Drop\_, the increase of water storage capacity, and the integrated water resources management to ensure optimal use of water resources. These suggestions will be realized in association with more specific measures such as (i) protection of water resources; (ii) securing benefits of water related infrastructure; (iii) optimization of water use efficiency; (iv) enforcement of improved irrigated agriculture methods and practices; (v) enabling irrigation stakeholders to participate effectively in the decision-making processes; and (vi) management of groundwater sustainably.

The CDS in KPP targets new cultivable land of 70,000 ha by 2015 to meet the food demand of the KPP's growing population and suggests various measures in both water-supply and water-use sides to address the issues in the IAWR sector. For the water-supply side, the following are suggested in the CDS: (i) provision of sufficient irrigation water supply, and promotion of water conservation; (ii) the increase of overall irrigation efficiency from 40% to 45% to achieve equity in water distribution and to increase the irrigated area; (iii) harnessing unused flood water and run this off from hill torrents to conserve rainwater, and to improve watershed management and flood mitigation; and (iv) increase of institutional capacity of the water supply institutions: the Khyber Pakhtunkhwa Irrigation Department (KPID) including the Office of Directorate General for Small Dams (DGSD).

For the water-use side, (i) the facilitation of water management; (ii) the greater attention to the water-use efficiency and the water productivity; and (iii) the bringing of cultivable wasteland into farming, through provision of irrigation, land development, and water harvesting are suggested as priority measures. While farmers' organization in existing irrigated systems have gained modest capacities for operation and maintenance (O&M) of on-farm irrigation systems, farmers' organizations and water users' committees (WUCs) responsible for O&M of domestic water-use systems in the community levels in arid areas have to be formed and trained.

In the IAWR sector in KPP, for the water-supply side, the CDS calls for PRs85 billion (\$808 million equivalent) for the investment during 2010-2017, and over 50% of the total investment is requested for the increase of new irrigated agriculture through the constructions of small-medium dams and irrigation canals. In addition, the CDS estimated PRs384 million (\$3.6 million equivalent) for required increases of the capacities of the KPID including the DGSD. The CDS also calls for PRs9 billion (\$86 million equivalent) for the investment in land development and leveling and PRs2 billion (\$19 million equivalent) for water harvesting during the same period for water-use side. The proposed project will support KPP's medium-term investment requirements.

A sector loan project is proposed as KPP government has a development plan to meet the priority development needs of the IAWR sector as included in the CDS up to 2017, and several subprojects were preliminarily identified for new irrigated agriculture developments associated with small-medium dam constructions. The proposed project is in line with the Country Partnership Strategy for Pakistan 2009-2013, which prioritizes water and irrigation, and focuses on the expansion of irrigated agriculture as well as the rehabilitation of irrigation systems. It is included in the Country Operations Business Plan, 2013-2014.

ADB's financed loan project in barani area of KPP has been implemented under unusually harsh conditions due to severe security threats. ADB's financed project preparatory technical assistance (PPTA) covering KPP and Punjab Province could not identify economically viable subprojects in the insecure areas of KPP. These suggest that (i) no subprojects should be selected in high security concerned areas; and (ii) careful selection of core subprojects at the initial stage of the PPTA implementation and reflecting project's benefits from as many aspects as possible into economic analysis are the key to success for better project's design.

## Project Outcome

Description of Outcome

Progress Toward Outcome

### Implementation Progress

Description of Project Outputs

Status of Implementation Progress (Outputs, Activities, and Issues)

Geographical Location

Khyber Pakhtunkhwa Province

## Summary of Environmental and Social Aspects

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

### Stakeholder Communication, Participation, and Consultation

During Project Design

During the PPTA, the consultant will identify how the main stakeholders will participate in the project design to improve living standards in the entire community. From point of view of Inclusive Growth, the project focuses on poor and low/middle income households in agriculture sector. To promote redistribution in the community, consultants analyze correlation between income levels and land areas at three steps: pre, in action and post surveys, and investigate how the project impacts on households' income by income/land area levels.

Key initial stakeholders are: (i) farmers and their family members, who spend a lot of time and effort on delivering water and housework, and obtain irrigation water-use skills and irrigated agriculture practices; and (ii) water users' committees responsible for domestic water-use systems in community level, and (iii) farmer's organizations responsible for irrigation water-use in on-farm level under the output 2 of the Project. WUCs and farmers' organizations will participate in preparing detailed engineering designs in irrigation and domestic water distribution systems in arid areas. Farmers and community members will participate in forming WUCs and farmers' organizations. Further, farmers will participate in preparing the design and construction of water courses in each subproject in arid area.

During Project Implementation

Consultant team and individual consultant were recruited in August and have been fielded on the first week of September 2014. The contract was extended up to 30 April 2016. In July 2015, ADB approved an additional \$200,000 grant financing and TA extension up to 30 April 2016 to provide additional resources and time needed to implement the inclusion of additional 2,000 ha and 200 ha in PHLCE Project and Chapra Dam core sub-project. The loan fact-finding mission was fielded in March 2016 targeting ADB's approval of the proposed PHLCE Project in Q3 2016. TA was extended to 31 October 2016.

## Business Opportunities

Consulting Services

QCBS (80:20 ratio) with full technical proposal in anticipated.

## Responsible Staff

Responsible ADB Officer

Takaku, Ryutaro

Responsible ADB Department

Central and West Asia Department

Responsible ADB Division

Environment, Natural Resources & Agriculture Division, CWRD

Executing Agencies

*Khyber Pakhtunkhwa Irrigation Department  
Government of Khyber Pakhtunkhwa  
Peshawar  
Pakistan*

## Timetable

Concept Clearance

-

Fact Finding

-

MRM

-

Approval

24 Oct 2013

Last Review Mission

-

Last PDS Update

29 Sep 2016

**TA 8488-PAK**

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
24 Oct 2013	15 Nov 2013	15 Nov 2013	31 Mar 2015	31 Oct 2016	-

Financing Plan/TA Utilization						Cumulative Disbursements		
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
1,000,000.00	200,000.00	120,000.00	0.00	0.00	0.00	1,320,000.00	24 Oct 2013	1,136,287.21

Project Page <https://www.adb.org/projects/47024-001/main>

Request for Information <http://www.adb.org/forms/request-information-form?subject=47024-001>

Date Generated 06 July 2017

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