



**1 GOVERNMENT OF THE PUNJAB  
PLANNING & DEVELOPMENT BOARD  
(PHE SECTOR)**

**WORKING PAPER FOR PDWP**

**Part-A - PROJECT PROFILE:**

**11.02.2025**

<b>1.</b>	<b>Project Title</b>	Water Supply Scheme for Kalot and Adjoining Abadies & Development for Water Source through Construction of Dam	
<b>2.</b>	<b>Location</b>	Kahuta (District Rawalpindi)	
<b>3.</b>	<b>Sponsoring Agency</b>	LG & CDD	
<b>4.</b>	<b>Executing Agency</b>	HUD&PHED	
<b>5.</b>	<b>Name Of Relevant Department(S) / Stakeholder(S) Invited In Pre-PDWP</b>	<ul style="list-style-type: none"> <li>• Irrigation Department</li> <li>• Technical Advisor Finance Department</li> <li>• Chief Consultancy</li> </ul>	
<b>6.</b>	<b>Name Of Sector's Specialist / Consultant / Advisor Expert Invited In Pre-PDWP</b>	<ul style="list-style-type: none"> <li>• Irrigation Department</li> <li>• Technical Advisor Finance Department</li> <li>• Chief Consultancy</li> </ul>	
<b>7.</b>	<b>Project Cost</b>	Before Pre-PDWP Rs.36.932 Million	After Pre-PDWP Rs.30.147 Million
<b>8.</b>	<b>Source of Financing</b>	Supplementary scheme	
<b>9.</b>	<b>Implementation Period</b>	06 Months	

**10. Project Description:**

Potohar Plateau is called Punjab's Barani Zone and is characterized by deteriorating land resources, negligible infrastructural development, small fragmented land holdings with limited agricultural options and poor employment possibilities. The hydrograph of Soan, Haro, Resh, Kanshi, Kahan and Bunha rivers show a seasonal pattern. Peak discharges coincide with rainfall period and generally occur during the months of July and August. During the remaining months of the year, rivers carry limited discharge and many tributaries of major rivers remain even dry. The proposed project involves the construction of a dam near Kalot for development of water supply source and supply of water to the population of Mohra Rajgan, Thoa Khalsa and Channi Bandwal villages in the Potohar region of Punjab, Pakistan. These villages, like many other rural areas in the region, face significant challenges related to water scarcity and inadequate access to safe drinking water.

**11. Scope of Work of PC-II:**

- Geological Investigation
  - Surface Geological Mapping
  - Sub Surface Investigation
    - Core Drilling at Structure Area
    - Test Pits
    - Sampling
    - Field Testing
    - Laboratory Testing
    - Topographic Survey

- Hydrological Study
- Design of Dam, Spillway and Appurtenant structures
- Design of Water Supply Scheme as per water demand of Kalot Village and Adjoining areas
- Environmental Impact Assessment Report
- Preparation of Engineering Drawings, Bill of quantities and cost estimate
- Detailed Financial and Economic Analysis
- Feasibility Study Report and PC – I

The dam site is located about 2.8 km south west of Kalot Village of Tehsil Kahuta, District Rawalpindi. The site is located on a local Nullah that is a tributary of Kanshi river. Under this component, the comprehensive feasibility study / detailed design will be carried out for the dam site based on the Hydrological, Geological, Environmental, technical and financial / economic consideration. Environmental Impact Assessment Report of the Project and resettlement plan will also be carried out. Based on the feasibility report recommendations, detailed design of each component will be carried out by the Consultants.

#### **12. Project Objectives:**

- To create the sufficient water storage for uninterrupted water supply to inhabitants of the area for drinking and domestic use.
- Harnessing the flow of stream will control the flood waters of river and will save the loss of life and property in the area.
- Seepage from the dam will recharge the ground water reservoir and increase the ground resources.
- Increase in fisheries, development of recreation and employment facilities to the residents of the area.

#### **13. Objectives of Study:**

The objective of proposed study will be

- Carrying out feasibility study and detailed design along with Resettlement Action Plan (RAP), Environmental Studies, Cost/benefits & Economic feasibility.
- Preparation of PC-I and detailed cost estimates.
- Preparation of BOQ, tender documents, criteria of prequalification of contractors and construction drawings.

#### **14.(A) Sector Strategy**

- Provide clean and safe drinking water to all urban and rural communities
- Prepare Master Plans for safe drinking water and sanitation of major cities
- Protect surface and groundwater sources of drinking water from all sorts of contamination
- Build, maintain water supply and sewerage infrastructure on financially sustainable basis
- Provide surface water for drinking purposes to reduce pressure on groundwater pumping for major urban centers

- Regulate and monitor private sector for over exploitation of groundwater, compliance with water quality standards and proper disposal of water containers
- Adopt all measures to achieve Sustainable Development Goals (SDGs)

**(B ) Relationship of the project with sectoral policy / growth strategy, 2023**

- Aligned with Punjab Growth Strategy 2023 and Sustainable Development Goals (SDGs)

**(C). Other Major on Going and Potential Projects in the Sector**

Nil

**15. Project Cost**

(Rs. In Millions)

Sr.		Description	Cost Before Pre-PDWP	Cost After Pre-PDWP
<b>Hiring of Staff, Design Cost, Preparation of Reports / Documents, Operational Cost</b>				
<b>A</b>	<b>a</b>	Remunerations (Salary Cost of Key Personnel)	16.700	16.700
	<b>b</b>	<b>i.</b> Support Staff (Technical Support Staff, Computer Operator, Quantity Surveyors, Field Surveyors, AutoCAD Operator, Revenue / Patwaris etc	2.280	2.280
		<b>ii.</b> Project Office (Operational Cost)	5.714	3.510
	<b>c</b>	Estimated Income Tax on Remunerations & Support Staff @ 16%	3.036	3.037
<b>Data Collection</b>				
<b>B</b>	<b>1</b>	Sub-Surface Geological Investigations	6.000	4.000
	<b>2</b>	Topographic Survey	0.400	0.400
	<b>3</b>	Material Testing	1.200	0.000
	<b>4</b>	Land Acquisition Related Expenditure	1.000	0.000
	<b>5</b>	5% PST	0.430	0.220
	<b>6</b>	2% Contingency	0.172	0.000
<b>Total (A+B)</b>			<b>36.932</b>	<b>30.147</b>

**16. Proposed Consultant Staff**

Sr.	Key Personnel	No.
1	Team Leader / Project Manager / Chief Design Engineer	01
2	Principal Hydraulic / Dam Design Engineer	01
3	Principal Hydrologist	01
4	Sr. Structural Engineer	01
5	Principal Geotechnical Engineer	01
6	Principal Public Health Engineer	01
7	Economist / Financial Specialist	01
8	Environmentalist / Sociologist / EIA Specialist	01
9	GIS Specialist	01
10	Procurement & Contract Specialist	01

11	Siesmologist	01
12	Junior Engineer	01

### 17. Year wise Estimated Cost

Activities	Cost (Rs. Million)	
	2024-25	Total
Survey, Investigation & data collection etc.	4.620	4.620
Consultancy Cost etc.	25.527	25.527
<b>Total</b>	<b>30.147</b>	<b>30.147</b>

### 18. Unit Cost

N/A

### 19. Period of Implementation

24 Months

### 20. Annual Recurring Expenditure

N/A

### 21. Annual Income after Completion

N/A

### 22. Requirement of vehicle/ staff / consultancy

Detail is attached with PC-II

### 23. Existing Facility

N/A

### Part-B

### 24. Deliberations of Pre-PDWP

The instant PC-II was discussed in Pre-PDWP meeting held on 04.02.2025 under the chairmanship of Member (LG/UD), P&D Board, Lahore with the following recommendations:

- The matter regarding the Sponsoring Agency shall be resolved and written concurrence of the requisite Department shall be obtained before placing the case to PDWP for consideration / approval.
- The PC-II shall be reviewed / amended in the light of comments furnished by P&D Board.
- Consultancy Wing P&D Board shall also provide its remarks about the PC-II before placing the same before the PDWP.

### Technical Appraisal

### 25. Observations of P&D Board

Sr.	Observations raised by PHE Sector, P&D Board	Reply by the department	Remarks
1.	It appears that the project titled "feasibility study, detailed design of new small dam" is part of ADP under Irrigation Department for construction of new small dams. However, the instant PC-II for water supply along with proposed dam has been initiated for approval. Sponsors may clarify that the proposed scope of work is covered under the said umbrella	The scheme may be included in Umbrella Project reflected in Provincial ADP at G.Sr No.2311 of the Irrigation Department. Another option is to get the study conducted through ADP Feasibility Study provision as discussed during the Pre-PDWP held on 04.02.2025.	The project has not been approved under umbrella of the Irrigation Dept. hence, it shall be referred to the Cabinet for inclusion as supplementary scheme.
2.	All the small dams are constructed for provision of water supply, then why the	Dam component of the scheme will be looked after by the Small Dams Organization of Irrigation	Concurrence of Irrigation Department shall

Sr.	Observations raised by PHE Sector, P&D Board	Reply by the department	Remarks
	project is not falling under the domain of Irrigation Department	Department whereas, water supply components will be taken up by PHED as executing agency.	be solicited in this regard.
3	Gestation period of the project has been indicated as 02 years which is not commensurate with project objectives. The gestation should be reviewed / rationalized according to the outputs of PC-II	Gestation period has been taken as 04 Months instead of 02 years.	Gestation of the project should be six month.
4.	Hydrologist in addition to principal hydraulic engineer should be justified	Hydrologist will give input regarding general hydrology of the area i.e., catchment area study, precipitation and the probable water courses etc., whereas, the hydraulic engineer will look into the technical matters related to Dam construction, filtration plant and other allied items of dam and water works.	Noted
5.	PHED may not have exclusive expertise of design evaluation of the dam. Hence, the implementation mechanism of the study should be redesigned. The component of dam may be seen by irrigation Department	As explained against Sr.2	Component of the Dam should be supervised by the Irrigation Deptt.
6.	O&M of the water supply shall be conducted by Local Govt. Concerned. Hence, the LG concerned should be taken on Board	Water supply scheme is proposed to be energized through solar energy so as to make the scheme financially sustainable. LG&CDD will be taken on board during study and execution. A committee will be constituted for facilitating the coordination at divisional level.	LG &CDD shall be sponsoring agency of the scheme.
7.	Similarly, it has been decided by the Cabinet that PHED shall be executing Agency. Therefore, LG & CDD should be taken on Board	Agreed.	Noted
8.	Procurement and contract specialist is not justified in the scope as the consultant shall not work as PMC. The position should be deleted	The consultant will conduct the complete designing including preparation of contract documents, tender documents/ DNITs etc. Hence, inclusion of procurement and contract specialist is justified.	Noted
9.	Role of Irrigation Deptt and PHED should be explicitly defined as both the Deptts have their components in the PC-II	Dam components of the scheme will be looked after by the Small Dams Organization of Irrigation Department whereas, water supply components will be taken up by PHED as executing agency.	Noted

## 26. Recommendations

The PC-II is placed before PDWP for consideration/approval with following recommendations:

1. LG & CDD should be sponsoring agency of the scheme. The case for supplementary scheme for cabinet shall be initiated by the LG & CDD.

2. Project steering committee consisting of all relevant stakeholders should be notified by LG & CDD to oversee the project implementation.