

PROJECT INFORMATION.

Background.

1. Irrigated agriculture is the backbone of Pakistan's economy. Around 80% of arable lands and 90% of agricultural output (25% of GDP) are entirely dependent on irrigation. The Government has made enormous investments into its irrigated agriculture. Today, the Indus Basin Irrigation System (IBIS) is the largest integrated irrigation network in the world, consisting of Indus river and its tributaries, three major storage reservoirs, 19 barrages, 12 inter-river link canals, 43 irrigation canal commands, and over 110,000 watercourses, delivering water to farms. There are about 42, 000 watercourses (tertiary channels) in Sindh. Over the past fifty years the irrigated agriculture has contributed enormously to the economic growth and poverty reduction in the country, where more than 30% of population lives below poverty line.
2. At present, the irrigation system of Pakistan (and Sindh province) suffers from: (i) low water delivery efficiency (only about 35-40% from the canal head to crop root zone); (ii) water distribution inequities; (iii) wasteful on-farm water use; (iv) water logging and salinity; and (v) poor O&M and low cost recovery.

To address these issues, the GoSindh has developed a strategy with three inter-related elements:

- (i) Fostering an institutional, policy and operational framework conducive to efficient and self-sustaining operation and management of the irrigation system;
 - (ii) Supporting Watercourse Associations (WCAs) in implementing high payoff infrastructure improvements at an accelerated pace; and
 - (iii) Enhancing agricultural productivity by introducing improved technology, agronomic practices, and information/knowledge systems. The Bank's ongoing projects and programs in water sector of Sindh province including the SOFWMP have been serving as an important medium to implement this strategy.
3. The original objective of the SOFWMP was to enable farmers to better manage irrigation water and increase agricultural productivity by:
 - (a) Improving the efficiency, reliability, and equity of irrigation water distribution;
 - (b) Supporting agricultural productivity enhancement measures to complement and enhance the benefits of improved water management; and
 - (c) Enhancing long-term financial sustainability of the irrigation system by fostering the growth of self-sustaining watercourse associations (WCAs) and farmer organizations (FO). These were to be achieved through implementation of three main components: (i) **Improvement of Irrigation Facilities**; (ii) **Social Mobilization and Capacity Building**; and (iii) **Productivity Enhancement**.

4. The proposed additional credit would help finance the costs associated with scaling-up of watercourse improvement and agricultural productivity enhancing activities to increase the impact of the Sindh On-Farm Water Management Project (Credit 3905-PAK).
5. The major outcomes expected of the proposed Additional **Financing are the improved efficiency, reliability, and equity of irrigation water distribution** at watercourse levels **and enhanced agricultural productivity in the project area**. Also, the longer term outcome of the project is the enhanced financial and operational sustainability of the irrigation system at watercourse levels through establishing and strengthening of Watercourse Associations (WCAs).

Scope of the Additional Financing

6. The key scope for the Additional Financing are as follows:
 - a) **Positive Development Impacts:** Preliminary impact assessment and observations from field visits suggest that the watercourse improvement works and the associated productivity enhancement activities under SOFWMP have made significant impact in terms of increased and more equitable water supply, enhanced crop yield, cropping intensity, and farm income. Hence, scaling up of watercourse improvement and productivity enhancement activities would further augment the positive development impacts of the Project.
 - b) **Large Demand for Watercourse Improvement Activities:** In Sindh Province, there are about 42,000 watercourses, of which about 17,000 watercourses have so far been improved under various on-farm water management programs, including SOFWMP. In the canal command areas of three AWBs alone, where SOFWMP is being implemented, more than 6,000 watercourses remain unimproved.
7. **Project Implementation Period:- 03 years**
8. **Project Area:** The project activities will be carried out in 03 notified Area Water Boards (AWB) i.e., Ghotki Feeder Canal, Nara Canal and Left Bank Canal.

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The proposed project includes 3 complementary components.

- i. **Improvement 3,000 watercourses & Training of WCAs.**
- ii. **Productivity Enhancement comprising of**
 - (a) *Precision Land Leveling 30,000 ha.*
 - (b) *Procurement and distribution of 150 Laser Equipment to individual small farmers, Farmers Organization (FOs), Watercourse Associations (WCAs) and Community / Rural Support Organizations.*
 - (c) *Establishment of Tunnel cultivation on 30 plots in the project area*
 - (d) *Integrated Pest Management.*
 - (e) *Information Kiosk.*
- iii. **Project Management Support.**

9. **Project Implementation:** The Project would be implemented by the Department of Agriculture Government of Sindh through Director General Agricultural Engineering & Water Management (DGAE&WM), Watercourse Associations and Project Supervisory & Monitoring Consultants.
10. **Scope of Services:** The assignment includes consultancy services for the period of 03 years. The consultants would be required to field a multi-disciplinary team of senior, mid-and junior-level professional and support staff.
11. **Services:** Project Supervisory & Monitoring Consultants includes
 - (a) *Engineering services*
 - (b) *Designing & implementing a Productivity Enhancement.*
 - (c) *Project Management Support*
 - (d) *Training.*
 - (e) *Monitoring & Impact Evaluation.*
12. **Proposed Indicative Staffing:** The following is the client's indicative estimation of the composition of the expertise required in the core team but the consultants can propose their own breakdown of staffing and level of effort / staff work.

Proposed Core Team @ Hyderabad - Indicative Staffing

Sr.#	Position
1.	Team Leader / Water Management Specialist.
2.	Design Engineer.
3.	Productivity Enhancement Specialist
4.	Environmental Monitoring Specialist
5.	Monitoring & Evaluation Specialist
6.	Other supporting technical and non technical staff

Proposed Field Teams.

There will be 3 Consultants Field Teams, each working with One or more Area Team of Project Staff for supervision & monitoring of Project activities. Each Field Team will comprise staff required for different disciplines, including watercourse improvement, productivity enhancement and other support staff. Following is the client's indicative estimation of the composition of the expertise required in the field but the consultants should elaborate the number and staff months of different categories, depending upon the assessment of workload.

Proposed Field Teams – Indicative Staffing

Sr.#	Position
1.	Field Team Incharge / Water Management Specialist.
2.	Junior Engineer.
3.	Other supporting technical and non technical staff.