

1. Project Data:		Date Posted : 02/20/2008	
PROJ ID :	P071092	Appraisal	Actual
Project Name :	NWFP On-farm Water Management Project	Project Costs (US\$M):	32.05
Country:	Pakistan	Loan/Credit (US\$M):	21.35
Sector Board :	RDV	Cofinancing (US\$M):	
Sector(s):	Irrigation and drainage (67%) Flood protection (21%) Other social services (11%) Central government administration (1%)		
Theme(s):	Participation and civic engagement (25% - P) Water resource management (25% - P) Rural policies and institutions (25% - P) Rural services and infrastructure (25% - P)		
L/C Number:	C3516		
		Board Approval Date :	06/12/2001
Partners involved :		Closing Date :	06/30/2006
			03/31/2007
Evaluator:	Panel Reviewer :	Group Manager :	Group:
Kristin S. Little	Ronald S. Parker	Alain A. Barbu	IEGSG

2. Project Objectives and Components:

a. Objectives:

The overall objective of the Project was to increase agricultural growth and productivity and expand farm incomes . This objective was to be achieved by: (a) improving the reliability, efficiency and equity of distribution of the available irrigation water; (b) increasing on-farm water use efficiency; and (c) enhancing long-term financial sustainability of the irrigation system by supporting the government's effort to foster self-sustaining farmer organizations (FOs).

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components (or Key Conditions in the case of DPLs, as appropriate):

(i) Community Development and Support Program; (*Appraisal: US\$2.32 million; Actual: US\$1.55 million--66.9 percent of appraisal estimate*)

(ii) Distributary-level Improvement Program; (*Appraisal: US\$4.24 million; Actual: US\$0.51 million--12.0 percent of appraisal estimate*)

(iii) Watercourse and On-farm Improvements Program; (*Appraisal: US\$9.26 million; Actual: US\$8.34 million--90.06 percent of appraisal estimate*)
(iv) Improvements in Branch/Distributary Canals; (*Appraisal: US\$1.82 million; Actual: US\$0.0 million--0 percent of appraisal estimate*)
(v) Local/Minor Irrigation Schemes Development Program outside the Indus Basin Irrigation System (IBIS); (*Appraisal: US\$11.06 million; Actual: US\$3.91 million--35.3 percent of appraisal estimate*) and
(vi) Project Management Support Component. (*Appraisal: US\$3.35 million; Actual: US\$2.6 million--77.6 percent of appraisal estimate*)

Component (iv), Improvements in Branch Canals, was cancelled at the GoP's request because the distributary canals selected for rehabilitation had branch canals that had already been remodeled through an ADB -assisted project. The cancellation did not affect the overall achievement of the PDO .

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

Actual project cost was 52.5 percent of appraisal mainly because of (i) reduced need for rehabilitation of distributaries; (ii) smaller sizes of distributaries rehabilitated during project implementation; and (iii) overestimation of Localized Minor Irrigation Schemes (LMIS) costs at appraisal. A savings of US\$3.47 million was cancelled on August 2, 2004. At the request to the borrower, an amount of US\$ 7.5 million was diverted to the Emergency Rehabilitation Project (Cr. 3516-10 PAK, Part Z), following the October 2006 earthquake. Farmers' contributions in rehabilitation of distributaries/minors were reduced to reflect their affordability. The credit closing date was extended by nine months (until March 31, 2007) reflecting accumulated delays in project implementation .

3. Relevance of Objectives & Design:

Relevance of Objectives: The Project Development Objective (PDO) remains relevant at project close . Beneficiary participation in irrigation management at farm- and as well as at secondary levels of the irrigation systems is an important development priority of current Government agenda . The project's watercourse improvement and institutional strengthening of water user associations (WUAs) components are consistent with Government's ongoing National Program for Watercourse Improvement .

The CAS on which the project was based (1995) notes the GOP's interest in "revamp[ing] the irrigation and drainage system, by expanding farmers' responsibilities in operations and maintenance and by identifying and adequately funding priority drainage investments ." And the latest CAS (2006) continues to make this a priority, envisioning an expansion in lending in infrastructure (primarily energy, water, and transport) and human development and stating that there remains a need for significant new investment in irrigation and other uses of water as well . *Rating: substantial.*

Relevance of Design: Project design included elements that address GOP's priorities and critical issues mentioned in the CAS (e.g., the involvement of beneficiaries in managing the distributaries and minor canals through formation and support of FOs). However, the project management setup lacked structure, staff, and a clearly delineated role, given the complexity of the project. This flaw resulted in a lack of commitment which often led to delayed preparation of feasibility studies of individual subprojects, and insufficient attention to procurement and the supervision of civil works for irrigation improvement. Making the completion of the social mobilization process (which involved: (i) formation of farmer organizations, (ii) carrying out of the detailed baseline surveys for the subprojects, (iii) preparation and use of the Framework for Identifying and Screening Sub-projects (FISSP); (iv) carrying out Distributary Environmental and Social Assessments (DESAs), and (v) signing of Irrigation and Irrigation and Drainage Management Agreements for transfer of distributaries/minor channels to FOs), an essential prerequisite for implementation, proved problematic as the time needed for this was underestimated; delaying the physical rehabilitation until the fourth year of the project and creating pressure to complete the components within a short time period . *Rating: modest.*

4. Achievement of Objectives (Efficacy):

(i) *Increase agricultural growth and productivity.* The project delivered on its key outputs, even exceeding some expectations, with the establishment and operation of 53 farmer organizations (FOs) and federations of water user associations (FWUAs), and the rehabilitation of 21 distributary canals, 31 local minor irrigations systems, 1,115 watercourses and the construction of 496 new water tanks. The rehabilitation of 20 branch canals as originally planned was cancelled because the GoP completed these tasks through an ADB -financed project. This, therefore, did not affect the overall project outcome . The irrigated area in the project districts has been increased as a result of improved irrigation infrastructure. This resulted in increased agricultural growth and productivity, according to the findings of a project impact assessment study . The study found that cropping intensity was increased by 20-30 percent and per ha yields of major crops also increased in the surveyed project areas . *Rating: substantial.*

(ii) *Expand farm incomes.* Another impact evaluation looked at water use efficiency, crop yield, and farm incomes . This revealed a 21 percent increase over the baseline indicators determined during the early stages of project implementation. Today, the farmers in the project area are much more aware of their roles in managing water resources at distributaries, minors, and watercourse levels through FOs /FWUAs/WUAs. These results are expected to lead to significant increases in farm incomes, and contribute to poverty reduction in the project area covering 2.2

million population in the North West Frontier Province (NWFP). *Rating: substantial*.

5. Efficiency (not applicable to DPLs):

This otherwise thorough analysis did not take into account that salinization is occurring partly as a result of expanded irrigation. The financial rate return (FRR) at project appraisal was estimated at 24.3 percent, and the estimate at project completion was slightly higher, at 26.7 percent.

a. If available, enter the Economic Rate of Return (ERR)/Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation :

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	Yes	26.6%	100%
ICR estimate	Yes	30.2%	100%

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome:

The project did substantially achieve its objectives (see section 4). The Improvements in Branch/Distributary Canals component was dropped, but this did not affect the achievement of the project's development objectives as the task was completed instead with funding from ADB. However, overall project outcomes are assessed as *moderately satisfactory* because of moderate shortcomings--in this case a significant uncertainty about the sustainability of the farmer organizations.

a. Outcome Rating : Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating:

There is a critical lack of long-term commitment and support of FOs/FWUAs by the provincial government that threatens development gains made. Likewise, a weak O&M framework for sustainable management of the distributaries and minors, which have been transferred to FOs indicates a further risk to development. The FOs are young (most are less than 3 years old) and their capacities are weak. To decrease this risk, the provincial government would need to institutionalize capacity building support to the FOs /FWUAs/WUAs and provide them with necessary financial resources. This would require the provision of external technical support to the provincial government.

a. Risk to Development Outcome Rating : Significant

8. Assessment of Bank Performance:

Quality at Entry: An important design feature was the involvement of beneficiaries in managing the distributaries and minor canals through formation and support of FOs. However, several design flaws, including inadequate project management setup; insufficient coordination, particularly the lack of involvement of the Irrigation Department (PID) in the Project; and underestimation of efforts and time needed for social mobilization and support activities, proved detrimental to project success. Additionally, project design lacked adequate procurement planning. The limited work windows due to canal openings, and climatic constraints were not taken fully into consideration during planning, making the contract completion periods unrealistic.

Supervision: Substantial Bank involvement during implementation, including efforts to make up for quality at entry weaknesses, proved helpful. The Bank identified major issues and worked to solve them, together with the provincial government; advised on procurement, disbursement, and financial management; and approved the extension in a timely manner.

Overall Bank Performance: Though there were flaws in the project design, the project responded to a pressing need, in line with country priorities, and project supervision compensated for some of the shortcomings of the design. Overall, the Bank's performance is rated moderately satisfactory.

a. Ensuring Quality -at-Entry: Moderately Unsatisfactory

b. Quality of Supervision : Satisfactory

c. Overall Bank Performance : Moderately Satisfactory

9. Assessment of Borrower Performance:

Government: Both the GoP and the provincial government provided proper guidance throughout the project, facilitating implementation. The GoP also effectively monitored the use of credit proceeds .

Implementing Agency: The implementing agency's involvement was effective and proactive, with some exceptions, namely with coordination between key stakeholders, and the appointment of a full -time project director. Despite a sub-optimal project management setup, the implementing agency was able to deliver key project outputs. The agency offered adequate project oversight, and compliance with legal covenants and social and environmental safeguards.

Government performance was satisfactory, but given the weak performance of the IA, especially in the first years of project implementation, borrower performance is rated moderately satisfactory .

a. Government Performance :Satisfactory

b. Implementing Agency Performance :Moderately Satisfactory

c. Overall Borrower Performance :Moderately Satisfactory

10. M&E Design, Implementation, & Utilization:

Design: M&E design was well thought out at appraisal . According to the PAD, the project impact evaluation studies were to focus on: (a) agricultural growth and crop diversification; (b) impact on income and employment, and secondary effects on regional economy; (c) impact on groundwater aquifers and water quality; (d) impact on water use and equity in distribution; and (e) performance of FOs/FWUAs. Baseline surveys were to be completed within one year of the start of the project . During project implementation, baseline data was to be compared to on -going data collected in terms of the development indicators . The progress made toward achieving the project objective was intended to be constantly monitored and periodically evaluated

Implementation : For the most part, this plan was followed . Data was regularly collected, collated, tabulated and analyzed for the preparation of monitoring reports for various management forums and committees . Good quality quarterly reports were generated on a regular basis during the implementation period . Baseline data collection and impact evaluation were carried out by specialized consulting firms .

Utilization : The data collected were utilized for impact evaluation on project close .

a. M&E Quality Rating : Substantial

11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):

During project implementation, no significant negative social impacts were observed. The project was classified as environmental category “B ” as it involved mainly environmentally beneficial works and construction works for minor irrigation schemes with little and easily manageable environmental impacts . An ex-post assessment report indicated that no major environmental impacts occurred except for several cases of tree cutting in watercourse areas where civil works were carried out, but later on farmers replanted the trees . The implementation of DESA and gender related safeguards were satisfactory . Procurement problems prevailed due to lack of adequate procurement planning and weak capacity of implementation agencies and consultants . Financial management and auditing arrangements were made based on a detailed review of the financial management aspect of the project . The project faced some difficulties in the preparation of quarterly financial management reports, but this was resolved through guidance and training from Bank staff.

12. Ratings :	ICR	IEG Review	Reason for Disagreement /Comments
Outcome:	Moderately Satisfactory	Moderately Satisfactory	
Risk to Development Outcome:	Significant	Significant	ICR rates this as "substantial" though this is not one of the ratings options .
Bank Performance :	Moderately Satisfactory	Moderately Satisfactory	
Borrower Performance :	Moderately Satisfactory	Moderately Satisfactory	
Quality of ICR :		Satisfactory	

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NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.

- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate .

13. Lessons:

- Without an up-front investment in social mobilization activities prior to project approval, projects needing such activities can be delayed considerably .
- Lack of a clear definition of institutional roles can slow progress . For example, if the role of the Irrigation Department was never clearly defined in terms of resource allocation and management, implementation, and delivery of key outputs, resulting in a lack of commitment and many delays .
- Involving the farmers and farmer organizations formally, fully, and from the start resulted in more effective beneficiary participation in the process . Where this did not happen, participation was less effective .

14. Assessment Recommended? Yes No

Why? This may have lessons for other water management initiatives globally, particularly the lessons learned concerning the sustainability of institutional development gains made with FOs /FWUAs/WUAs. It would be instructive to find out how the FOs/FWUAs/WUAs hold up over time and what lessons can be learned from the lengthy and somewhat difficult experience this project has had .

15. Comments on Quality of ICR:

The ICR is candid and generally well prepared . However, it is surprising that the report did not do more to explain further the project experience with social mobilization .

a. Quality of ICR Rating : Satisfactory