



# Validation Report

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Reference Number: PCV: PAK 2008-07  
Project Number: 28165  
Loan Number: 1578  
July 2008

## Pakistan: Second Flood Protection Sector Project

Operations Evaluation Department

**Asian Development Bank**

## ABBREVIATIONS

ADB	–	Asian Development Bank
BME	–	benefit monitoring and evaluation
EA	–	executing agency
EIRR	–	economic internal rate of return
IA	–	implementing agency
M&E	–	monitoring and evaluation
NGO	–	nongovernment organization
O&M	–	operation and maintenance
OED	–	Operations Evaluation Department
PCR	–	project completion report
RRP	–	report and recommendation of the President

### Key Words

adb, asian development bank, pakistan punjab flood protection, pcr validation, project completion report

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## OED PCR VALIDATION REPORT

A. Basic Project Data		PCR Validation Date:	April 2008	
<b>Project Number:</b>	28165; Loan 1578-PAK(SF)		<b>Appraisal</b>	<b>Actual</b>
<b>Project Name:</b>	Second Flood Protection Sector Project	<b>Total Project Costs (\$ million):</b>	200.00	61.16
<b>Country:</b>	Pakistan	<b>Loan/Credit (\$ million):</b>	100.00	48.16
<b>Sector:</b>	ANR	<b>Cofinancing (\$ million):</b>	50.00	–
<b>Financing (\$ million):</b>	<b>ADF:</b> 100.0	<b>Borrower Contribution (\$ million):</b>	44.00	13.00
	<b>OCR:</b> –	<b>Beneficiaries (\$ million):</b>	6.00	1
<b>Cofinanciers:</b>	Overseas Economic Cooperation Fund	<b>Cofinancier Contribution:</b>	–	
<b>Board Approval Date:</b>	13 November 1997	<b>Effectiveness Date:</b>	11 May 1999	1 Oct 1999
<b>Signing Date</b>		<b>Closing Date:</b>	30 Jun 2005	31 Dec 2006
<b>Project Officers:</b>	<b>Name:</b>	<b>Location:</b>	<b>From</b>	<b>To</b>
	K. H. Ryu	HQ	1998	1999
	K. Yokoyama	PRM	1999	2000
	K. Matsunami	PRM	2000	2001
	S. Khan	PRM	2001	2002
	S. Tamang	PRM	2002	2003
R. Farrukh	PRM	2003	2006	
<b>Evaluator:</b>	M.A. Quassem Consultant	<b>Director:</b>	R. K. Leonard, OED1	
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ADF = Asian Development Fund, ANR = agriculture and natural resources, HQ = headquarters, OCR = ordinary capital resources, OED = Operations Evaluation Department, PRM = Pakistan Resident Mission.

### B. Project Description (as stated in the report and recommendation of the President [RRP])<sup>2</sup>

- (i) **Rationale.** “Flood hazards and erosion, which adversely affect human settlements, infrastructure, and farming areas have to be reduced if Pakistan’s flood-prone communities can sustain increases in agricultural production, income, and employment. The Project, formulated in line with the National Flood Protection Plan, will help reduce the level of damage faced by agricultural producers; and provide reliable flood forecasts to communities exposed to flood risks. The majority of the beneficiaries will be the low income families that predominate in the country’s rural areas. More than 30% of the population in the project area falls below the poverty line of \$150 per person per year. The capacity building component of the project will lead to better design and planning of flood protection works on a sustained basis. The participatory approach will help in mobilizing the local communities in the planning, implementation, and maintenance of the project facilities.”

<sup>1</sup> ADB. 2007. *Project Completion Report on Second Flood Protection Sector Project in Pakistan*. Manila. Beneficiaries’ contributions came in the form of land. Footnote 6 states that “The value of the land provided by the beneficiaries could not be worked out and was not included in the cost of the subprojects.”

<sup>2</sup> ADB. 1997. *Report and Recommendation by the President to the Board of Directors on a Proposed Loan to the Islamic Republic of Pakistan for the Second Flood Protection Sector Project*. Manila.

- (ii) **Objectives or expected outcomes.** “The primary objective of the Project is to reduce damage because of flooding in areas lying along Pakistan’s rivers for shielding communities, particularly the poor areas, who make up the most vulnerable segment of the population. The secondary objective is to reduce the level of poverty in these areas. The expected outcomes are (a) improvement of sector policy; (b) improvement of the capacity of various agencies and beneficiaries involved in the planning and implementation of flood protection works and flood forecasting, warning, and preparedness; and (c) reduction in flood hazards, and the level of poverty.”
- (iii) **Components.** The project sought (a) policy improvement and capacity development for planning, design, and implementation of flood protection works; (b) improvement in flood forecasting, warning, and preparedness; and (c) implementation of subprojects for physical flood protection works.
- (iv) **Outputs.** Project outputs included (a) sector policy recommendations; (b) flood early warning system and radar, telemetry system, and high frequency radio communication system for flood forecasting, warning, and preparedness; (c) trained staff and beneficiaries to increase institutional capacity; and (d) construction of flood protection, and erosion control infrastructures in subprojects.

### C. Evaluation of Design and Implementation (evaluation assessment of actual vs. envisioned)

- (i) **Relevance of design and formulation.** The Asian Development Bank’s (ADB) Project Completion Report (PCR) noted that the Project was built on the achievements of the first project by augmenting the facilities made available earlier and by further enhancing the institutional capabilities of the Federal Flood Commission, the National Flood Forecasting Bureau, the Flood Forecasting Division of the Pakistan Meteorological Department, the Irrigation Research Institute, the provincial irrigation departments and provincial irrigation and drainage authorities, and flood-prone communities. The PCR also noted that (a) the scope of flood protection subprojects and flood forecasting components was adequate, but costs were overestimated; the inputs of consultants in packages A and B were very high, which was reasonably corrected during reformulation of the Project; (b) the quality of the project preparatory technical assistance could have been improved by more precisely defining the scope of each component, limiting the role of consultants to the activities where their input was required, and making reasonable cost estimates; and (c) the Project’s objectives envisioned at implementation appraisal would be fully achieved if the Project could be implemented according to the reformulated design. Although the PCR stated that the stakeholders were adequately consulted and that flood-prone communities and nongovernment organizations (NGOs) working with riverine communities were consulted, the Government PCR stated that active participation in project design and implementation was “unfortunately not done as desired”. The Operations Evaluation Department (OED) agrees with the PCR that the formulation process was broadly adequate.
- (ii) **Outputs and costs as envisioned during appraisal as compared with actual costs and achievement of outputs; reasons for any deviation.** OED concludes that the Project has achieved the main physical targets envisioned at appraisal. Sixty-one flood protection subprojects were completed against a target of 44. The PCR noted that the scope was changed during the reformulation of the Project’s design—inputs from consultants for studies were reduced. Three studies (morphological, environmental, and flood plain zoning) were dropped, as was the package A consultancy. The scope of the package B consultancy and NGO input was reduced. The studies were not considered essential to achieve the project objectives, and development of an effective flood forecasting system did not depend on the studies. The assessment of the PCR

regarding the achievements in outputs of different components of the Project was generally precise. The table showing targets and target achievements (for components and subcomponents) could have been more informative; this also applied to the project framework in Appendix 1 of the RRP (footnote 2) and the PCR mission's item-by-item comments (assumptions, indicators, objectives, etc.). OED notes that the bad security situation and conflict among local tribes in Balochistan that restricted the achievements of outputs in that Province was not anticipated at the time of project formulation, appraisal, or even during reformulation. A summary of the project costs, by funding source, is in the following Table.

**Comparison of Project Costs at Appraisal, as Reformulated, and Actual**  
(\$ million)

Funding	Appraised Cost	Reformulated Cost	Actual Cost	Actual Cost in %	
				Appraised Cost	Reformulated Cost
Total	200.0	82.0	61.2	30.6	74.6
ADB's contribution	100.0	63.9	48.2	48.2	75.4
OECF of Japan's contribution	50.0	0.0	0.0	0.0	0.0
Government of Pakistan's contribution	44.0	15.7	13.0	29.5	82.9
Beneficiaries' contribution	6.0	2.4	Land	–	–

– = not available, ADB = Asian Development Bank, OECF = Overseas Economic Cooperation Fund.

Source: Project Completion Report (footnote 1).

The PCR did not indicate why the beneficiaries' contribution was reduced from \$6.0 million to \$2.4 million; or why the contribution was not reflected in terms of land, rather than cash. Further communication with the project officer revealed that the social mobilization process had established that communities regarded land the most feasible contribution. He indicated that it was difficult to work out the value of land, and that presenting this could have been misleading. The reformulation of the project led to reduced allocations for civil works, and to a reduced contribution on the part of the beneficiaries. The PCR has not fully explained why 25% of the estimated cost at reformulation remained unspent, when 61 subprojects were completed against a target of 44. The project officer has reported that the major savings were made in civil works, vehicles, equipment, and supplies. The savings in civil works were because of a high estimate as a result of the use of historical cost trends, and fixed escalation factors. In reality, the structures were designed after carrying out model studies, which resulted in more economical and efficient structures than the standard types on which the estimates were based. Vehicles were not purchased by the Project. The allocations for equipment, particularly for radar and the telemetry network, were revised upward to avoid the need for a government re-approval process in case the quoted prices turned out higher than approved. It was reckoned that the Project, which relied on international contracts, could not afford the delays involved.

- (iii) **Project cost, disbursements, borrower contribution, and conformance to schedule (as relevant to project performance).** The total cost of the Project at appraisal, reformulation, and completion was provided in the PCR in paras. 13 and 14; and has been tabulated above. The PCR reflected the disbursement issue correctly in para. 15: disbursement procedures, as such, did not seem to have caused delays; the delay in the Project's implementation was for other reasons, such as late approval of subprojects, revision of contracts of consultants and the NGO, and holding back of payments to the consultants. After a project director was replaced by the Executing

Agency (EA), performance improved.

- (iv) **Implementation arrangements, conditions, covenants, and related technical assistance projects.** The PCR identified two important issues: (a) procedural delays in the implementing agencies (IAs), and (b) delegation of authority to approve subprojects. These issues were translated into lessons in paras. 35, 36, and 37 in the PCR. Out of 28 complied-with covenants, 10 were highly satisfactory, 16 were satisfactory, and 2 were partially fulfilled. OED regards it as unfortunate that the two partially fulfilled covenants happened to be very important ones—one on training of the officials for improving institutional capacity, and the other pertaining to the beneficiaries in the subprojects which was important for the subprojects' sustainable operation and maintenance (O&M). Appendix 4 of the PCR concluded that beneficiaries' participation in some subprojects was not ensured, which may affect the sustainability of O&M of these subprojects. OED also notes that compliance with most of the loan covenants was delayed. OED validates the PCR assessments of the consultants' performance.
- (v) **Performance of the borrower and EA.** ADB's PCR rated the performance of the Federal Flood Commission as partly satisfactory, the Pakistan Meteorological Department as unsatisfactory, Water and Power Development Authority, Water Wing, as highly satisfactory, and provincial irrigation departments as satisfactory. The Government PCR assessed that the Federal Flood Commission "carried out its role of project coordination in a satisfactory manner, although it could have been more proactive in resolving implementation issues." The Government PCR did not comment on the performance of the Pakistan Meteorological Department. From the PCR as well as the Government PCR, OED notes that EA's implementation of the training component for government officials was not satisfactory, neither was the participation of beneficiaries in the subprojects. The PCR did not elaborate on the investigation of the misappropriation case. On further enquiry, OED learned that the investigation was stopped, probably at the final stage, so that no responsibility was fixed. OED laments that ADB was apparently not able to push the investigation forward so that adequate punitive actions could be taken. The Government PCR did not mention the misappropriation case. OED generally agrees with the PCR's assessment of the performance of the Borrower, EA, and IAs.
- (vi) **Performance of ADB.** The PCR rated the performance of ADB as satisfactory. Based on the Government's PCR and other documents, OED notes that ADB played a proactive role in improving coordination among EAs, IAs, and the consultants, in day-to-day follow-up of the activities, in intensive monitoring of implementation, and in regular fielding of review missions. OED considers the suspension of the loan, by ADB in May 2001, for lack of progress in implementation as timely and prudent. The PCR states that submissions from the EA were responded to promptly, and that ADB's disbursements and approvals were efficient. The Government PCR also states that "all approvals and disbursements were time-bound and free from complaints from any quarter." OED concurs that ADB's performance may have been "satisfactory" but that ADB should have taken the issue of possible misappropriation more seriously. ADB could also have done better by organizing a final benefit monitoring and evaluation (BME) report at project completion.

#### D. Evaluation of Performance (evaluator assessment)

- (i) **Relevance.** The PCR evaluates that "over-estimation of the costs and the exaggerated scope of consulting services rendered the Project only partly relevant." However, the PCR has assessed the Project as relevant to the Government's strategy for development of the sector; and consistent with the National Flood Protection Plan, and also to ADB's strategy of supporting projects with the potential for economic growth and poverty reduction. Although OED agrees with the PCR regarding the exaggerated scope of consulting services and overestimation of the costs, OED rates the Project as

“relevant” on the basis that ADB took steps to reformulate the Project. Furthermore, the Project was in line with the Government’s national strategy of flood and erosion control, and with ADB’s focus on economic growth and poverty reduction.

- (ii) **Effectiveness in achieving outcome.** The PCR has evaluated the Project as effective in achieving outcomes. The Government PCR has commented that “the structures behaved well and proved efficient for the purpose for which they were constructed.” There was no BME report at project completion. OED sees no specific reason to question the PCR’s assessment of the outcomes of the subprojects, and the early flood forecasting and warning system. OED is of the opinion that compliance with the two now partially fulfilled covenants, on training and beneficiaries participation, would have helped the Project to achieve even better outcomes. Overall, OED concurs with the rating of the PCR.
- (iii) **Efficiency in achieving outcome and outputs.** The PCR assessed that desired economic benefits have been achieved. The estimated economic internal rates of return (EIRRs) were economically viable and robust for all provinces (footnote 1, para. 31). Loosely using an EIRR of 18% as the benchmark value for highly successful projects, OED notes that the EIRR of core subprojects in Punjab (21.6%) and North West Frontier Province (31.0%) are very high. A loss of 6 years in project implementation does not seem to have affected the high economic rate of return. The efficiency of the implementation process was mixed, as is clear from the delays incurred. The Project made up for some of the delays later, however, after the change of project director. OED agrees with PCR’s rating of the Project as “efficient.”
- (iv) **Preliminary assessment of sustainability.** The PCR assessed the Project’s sustainability as likely because of (a) effective infrastructures, sound flood forecasting, and an early warning system; (b) presence of appropriate policies and procedures, and government’s apparent willingness to ensure continued funding for O&M; and (c) the availability of technically equipped human resources for O&M. OED agrees with the PCR, and considers fulfilling these three conditions as foundation for the success of such projects. The beneficiaries’ associations should be strengthened further. Their role in O&M vis-à-vis that of government staff should be clearly spelled out. Beneficiaries should be trained further.
- (v) **Impact (both intended and unintended).** The PCR assessed the overall impact of the Project as positive. The flood protection works are protecting a vast area of irrigated land, private houses, and public infrastructure including barrages and outfalls; and they have reduced vulnerability, and loss of livelihood. OED studied the Government’s PCR, BME Baseline Survey Report, and Back-to-Office Report. None of the subprojects seem to have caused any negative impact on environment, or on indigenous people. The Project did not cause the need for any involuntary resettlement. OED notes, however, that many subprojects have had no significant floods for more than 20 years; and that impact benefit monitoring needs to be undertaken after a major flood event. OED validates the PCR assessment.

#### **E. Overall Assessment, Lessons, and Recommendations (evaluator assessment)**

- (i) **Overall assessment.** The PCR rated the Project as “successful.” Based on the evaluation of performance in Section 4, OED validates the PCR rating.
- (ii) **Lessons.** The lessons of the PCR flow well from the discussion in the main text, and are supported by OED. OED would like to add the following lessons on the basis of this validation:
  - (a) An efficient and proactive project director is indispensable for effective project implementation.

- (b) Project design and formulation should include a lead time to organize the beneficiaries in associations and to train the staff of the EA and IAs to make them ready for the project.
- (iii) **Recommendations.** The recommendations of the PCR flow from the discussion in the main text and are supported by OED. OED would like to repeat the following recommendations from the BME Baseline Survey Data report.
- (a) "... baseline survey should be undertaken on the remaining subprojects (detailed baseline survey was conducted on 38 subprojects); if security permits, Balochistan may also be included to complete the baseline data in a single format. This report could then be updated with the new information."
- (b) "... project impact studies should be undertaken on all subprojects constructed in the first and second flood protection projects, or better, at a national level for all flood protection subprojects. Impact benefit monitoring needs to be undertaken after a major flood event, and would require inputs from engineering and hydrology specialists to assess the likely extent of flooding without the project. Prior to the flood event the project requires detailed topographic surveys and mapping of protected areas."
- (c) "... the above recommendations could be done soon at least for Balochistan."
- (d) "... ADB should take note of misappropriation case(s) seriously; and, ensure that the country government fixes up the responsible person(s), and gives out punishment. ADB might also consider 'withdrawal of fund' for the component about which a misappropriation case is established, or ADB guidelines are violated."<sup>3</sup>

**F. Monitoring and Evaluation (M&E) Design, Implementation, and Utilization** (evaluator assessment)

The PCR did not discuss M&E arrangements in detail. The RRP mentions the need for M&E of the project benefits—(i) within 6 months after the ADB loan becomes effective; and (ii) within 3 months following completion of the Project. It has outlined the procedures, scope, and indicators. OED did not find any document to suggest that the M&E was done as per RRP. On further communication, the project officer informed that BME was done, but not as scheduled in the RRP, because the Project was substantially delayed, and that the results were used in economic analysis. However, these results were based on the BME Baseline Survey, not on a final survey upon project completion. Furthermore, the BME Baseline Survey was done in 2005 and 2006, using rapid rural appraisal techniques; which cannot generate precise and accurate technical data, such as the size and demarcation of subprojects. This may also affect the quality of the economic analysis to some extent, and is a reason for OED being cautious in upgrading the rating of the Project to "highly successful."

**G. Other** (safeguards, fiduciary, unintended impacts—positive and negative)

There was no report of any safeguard violation or unintended impact in the PCR or in the documentation, other than the possible misappropriation case already reported.

H. Ratings	PCR	OED Review	Reason for Disagreement/Comments
Relevance	Partly relevant	Relevant	
Effectiveness in Achieving Outcome	Effective	Effective	
Efficiency in Achieving Outcome and Outputs	Efficient	Efficient	

<sup>3</sup> No allegation was referred to the Integrity Division of the Office of the Auditor General.

Preliminary Assessment of Sustainability	Likely sustainable	Likely Sustainable	
Borrower	Satisfactory	Satisfactory	–
Executing Agency	Partly Satisfactory	Partly Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	–
Impact:	Positive	Positive	–
Overall Assessment	Successful	Successful	The Project is relevant, effective, efficient, and likely to be sustainable.
Quality of PCR	Satisfactory	Satisfactory	See comments below.

#### **I. Comments on PCR Quality**

The PCR was reasonably clear and concise. The lessons and recommendations are consistent with the narrative. The reasons for the Government's reformulation of the Project remain somewhat obscure; also perplexing was the PCR's statement that the project scope was reduced when in fact the Project completed 61 subprojects, instead of the 44 planned beforehand. More evidence to compare achievements and costs with the targets would also have been helpful. Last, the reasons for not implementing a final BME survey should have been indicated.

OED does not recommend that an evaluation be conducted for a project performance evaluation report at a later stage. However, in the event of a major flood in the area, it may have merit for OED to conduct or assist in conducting a survey of the quality of the flood works.

## **REGIONAL DEPARTMENT'S RESPONSE TO THE PROJECT COMPLETION REPORT VALIDATION REPORT**

On 6 March 2008, the Operations Evaluation Department (OED) circulated a draft Project Completion Report Validation Report for interdepartmental comments. OED received comments from the Agriculture, Environment, and Natural Resources Division of the Central and West Asia Regional Department. The Agriculture, Environment, and Natural Resources Division supported OED's assessment.