

BANGLADESH
Water Management Improvement Project (WMIP)
Implementation Completion and Results Report Mission
(October 13-20, 2016)

I. Introduction

1. A World Bank mission¹ undertook an Implementation Completion and Results Report (ICR) Mission from October 13-20, 2016 for the Water Management Improvement Project (WMIP). The main objective of the mission was to start preparation of the ICR.

2. The mission worked closely with the Project Coordination Unit (PCU) team and met with the Secretary of Ministry of Water Resources (MoWR), Director General Bangladesh Water Development Board (BWDB), Director General Water Resources Planning Organization (WARPO), Project Coordinator WARPO, Project Director WMIP, and senior officers of the BWDB. The mission also met with project beneficiaries and key stakeholders in order to have an overview of their assessment of the project. The findings and recommendations of the mission were discussed at the wrap-up meeting held on October 20, 2016 between PCU and Bank Task Team. As agreed, this Aide-memoire (AM) will be classified as “For Public Disclosure”, under the World Bank Access to Information policy. The mission is grateful for the cooperation, support, and hospitality extended by the Government of Bangladesh.

II. Project Data and Implementation Performance Ratings

Project Data		Performance Rating	
Approval Date	September 18, 2007	Name	March 2016 Mission
Effectiveness Date	November 26, 2007	Project Development Objective	S
Closing Date (revised)	June 30, 2016	Implementation Progress	S
Net Commitment (Original)	SDR 67.5 million (US\$102.2 million)	Financial Management	S
Net Commitment (Revised)	SDR 59.5 million (US\$82.0 million)	Procurement	S
Percent Disbursed	95.5 %	Project Management	S

Note: S-Satisfactory; MS-Moderately Satisfactory; MU-Moderately Unsatisfactory; U-Unsatisfactory
The final performance ratings of the project will be reviewed as part of the ICR.

III. Progress towards Achieving of Project Development Objective

3. The original Project Development Objective (PDO) was to improve national water resources management by involving the local communities to play an expanded role in all stages of the participatory scheme cycle management, from planning and design to operations and management.

4. The project was restructured in May 2011 through a reallocation of credit proceeds to support rehabilitation works to BWDB schemes damaged by the 2007 floods and Cyclone Aila in 2009. Originally there were 102 Flood Control and Drainage (FCD) and Flood Control and Drainage and irrigation (FCDI) schemes under WMIP for component 1 and 98 FCD and FCDI schemes for

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component 2 (in total 200 schemes). With the restructuring, number of schemes was reduced to 32 and 35 respectively considering the slow progress of work. The budget was revised to USD 123.26 million.

5. The PDO was revised accordingly to include emergency flood damage rehabilitation [FDR] of 63 schemes located across 27 Districts and 8 BWDB regions. Later 2 FDR contracts were dropped due to shortage of funds as the Netherlands Embassy withdrew its support under the trust fund. The revised PDO is to improve water resources management by improving infrastructure and institutions through rehabilitating damaged water infrastructure, piloting the role of local communities and enhancing the institutional performance of the Country's principal water institutions, particularly BWDB and WARPO. The PDO was rated as *Satisfactory (S)* by the last implementation support mission (ISM) which was carried out in March 2016. Based on the Results Framework (RF) updated by the last ISM, all PDO indicators have been fully met (See RF in Annex 1).

IV. Summary of Implementation Status

6. **Overall Implementation Status.** The intermediate outcomes indicators have been fully achieved or even exceeded at the time of March 2016 ISM (Results Framework in Annex 1). The implementation status, financial management, procurement and project management have been rated as Satisfactory (S). Overall, agreed actions from the last mission have been completed (See Annex 2). The only significant change relates to the transfer of schemes management to water management organizations (WMOs) under the **Participatory Scheme Management and Transition of O&M approach through local involving communities.**

7. **Water management organizations.** As reported by the March 2016 mission, the project beneficiaries in all 67 schemes have been mobilized into WMOs. WMOs have been formed with the aim to sustain participatory water management in BWDB schemes. WMOs are represented by water management associations (WMAs), the apex body of the water management groups (WMGs) at the scheme level. To date 785 WMGs and 72 WMAs have been formed in the 67 schemes financed under WMIP. WMIP implemented the concept of participatory approach for O&M through local involving communities. WMIP has introduced a new approach of transferring the management of schemes to the WMOs.

8. **Management Transfer of schemes to WMOs:** The transfer of management of schemes to communities is an important area for water management reforms. To date all 66 schemes (31 schemes from component 1 and 35 schemes from component 2) have been transferred to the WMOs compared to 19 schemes (7 schemes from component 1 and 12 schemes from component 2) in March 2016.

9. **Environmental safeguards. Environmental safeguards.** WMIP was classified as Category B, which is consistent with the provisions of OP/BP 4.01. An environment management framework (EMF) was adopted to ensure that all subprojects are adequately screened/assessed for the environmental issues, and to prepare site specific Environmental Management Plan (EMP). In accordance with the EMF, the site specific environmental screening/assessment (EA) along with the environment management plan (EMP) was prepared and cleared from Department of Environment (DoE). The mission noted that the EA along with EMP of some schemes had been carried out after the award of contract for implementing the schemes. So, the cost of EMP implementation was not incorporated in Bill of Quantity of the bidding document. Hence, compliance of EMP during construction was a challenge due to deficiency in capacity and constraints in the bid document. But thanks to the collaboration between PCU, field staff and consultants, and to a close monitoring, environment issues were managed satisfactorily. The hard copy of site specific EMP of each scheme was made available in the respective field office and site office. PCU organized training programs on environment management for the field key staff and the contractors. A checklist on the environment issues was prepared by PCU and distributed to all field offices to monitor the compliance with environment management standards. Community consultations were held with the support of the consultants, WMOs and the official from BWDB to discuss objectives and scopes of the project as well

as any possible temporary /permanent environmental implications. In addition, closer safeguard supervision was provided by the Bank team. No complaint on environment issues has been reported to date.

10. **Social Development and Safeguards.** Participatory scheme cycle management (PSM) approach involved beneficiary communities in project identification and implementation avoiding involuntary resettlement under components 1 and 2. All rehabilitation works under FDR component have also been carried out within existing available land without any encumbrances. None of the subproject schemes involved impact on indigenous peoples. Civil works contractors have managed temporary impacts during construction as per safeguards requirements. Voluntary donation of land possession was managed by communities under project guidance. BWDB will however, include a Social Safeguards Review Report with their Project Completion Report (PCR) highlighting challenges and lessons learnt for future reference.

11. The project's strategic approach was to fully avoid land acquisition and involuntary displacement of people. However, initial screening and social impact assessment done with the feasibility and scheme design were not far-sighted. PSM was not internalized within BWDB and institutional arrangement was not appropriately fielded. Social screening with community engagement with full disclosure of project information and stakeholders' responsibilities could be more useful.

12. WMOs established under the project have been registered with the Chief Water Management (CWM) Cell under BWDB. O&M responsibility defined for WMOs have been transferred to them in all the schemes under components 1 & 2. LCSs were formed and engaged with the help of WMOs. However, unused land resources of BWDB with prospects of productive use by WMOs could not be leased out to them in any of the O&M Divisions covered under components 1 & 2. WMOs' motivation at handing over the O&M charges needs to be analyzed for future prospect of PSM approach.

13. **Financial management.** The project was financed by IDA (US\$102.26 million) and the Netherlands (US\$20.00 million). As per legal agreement, PCU had established a Designated Account (DA) for channeling IDA funds as advance for payments against eligible expenditures. The Government had not signed any legal agreement with the Netherlands for co-financing with IDA. On that basis, the project was allowed to open only one DA under IDA for incurring expenditures for both IDA and Netherlands funds. Accordingly, PCU had to prepare single applications for reimbursements of expenditures for both IDA and Netherlands funds. This arrangement had created systematic delays in transfers of funds. Until 2011 when the Netherlands fund was withdrawn, reimbursement was made in two parts (one part against IDA allocation and another part under Netherlands contribution). It was very challenging for PCU to keep records of two disbursements (from IDA fund and from Netherlands fund) within single applications. Even at some point in time the Netherlands fund was not available within the Bank Treasury, PCU had to wait for several months to bring Netherlands fund into the DA. This problem should have been avoided if the Government had signed an agreement with the Netherlands and opened a separate DA for the Netherlands co-financing.

14. *Disbursements.* For the Netherlands funds, only US\$2.65 million (13.25%) of funds was disbursed on June 29, 2011. The remaining amount of US\$ 17.35 was cancelled after discussions between the Bank and the Netherlands. From IDA financing, US\$90.69 million (95.9%) has been disbursed. The current undisbursed balance is US\$2.55 million. The adjustment/recovery of the advance to the two DAs: (a) WARPO is expected to be completed within the deadline date of October 31, 2016; (b) PCU, the final application is expected to be submitted in few days. The expected un-spent balance in the DA is about BDT23.97 million refundable to IDA account once the last application is processed by the Bank. During implementation of the project SDR0.27 million was cancelled due to misprocurement of a work contract in 2014.

V. Preparation status of the ICR

15. The agreed actions and timeline for the preparation of the ICR are presented in Annex 3.

Economic and Financial analysis

16. The mission revised the Final Evaluation of the Participatory Scheme Management (PSM) Component prepared by FAO Investment Center (TCI), and the Final Evaluation Report prepared by Consultancy Services for Monitoring and Evaluation in BWDB. Both documents are well prepared and useful for the preparation of the ICR, but provide no evidence on outcomes that could help for the quantification of benefits. Based on field-level observations, the FAO report provides assessment regarding only components 1 and 2 where PSM was pursued, using a mix of qualitative and quantitative evidence, with greater reliance on the former given the nature of the issues being examined. Conclusions clearly indicate that the future direction of water management in the country must involve local communities and that there needs to be a clear and articulated strategy to make this happen. Community ownership was apparently strongest where the agricultural benefits are made possible from scheme rehabilitation and that the benefits were significant. The BWDB report assessed the PSM following criteria that included: (i) relevance to empower beneficiaries in water resource management; (ii) readiness of key players; (iii) appropriateness; (iv) effectiveness of contribution to planned output; (v) efficiency in terms of institutional support; and (vi) sustainability of the PMS. No indicators regarding increases of yields, cropped areas, beneficiaries' income, or value of avoided losses as project outcomes are provided.

17. The mission agreed with PCU that for the preparation of the ICR economic and financial analysis, a representative sample of 10 schemes financed under the WMIP will be prepared. The sample would include one FCD/FCDI from each of the seven regions where the project has intervened under components 1 and 2; and three schemes for the FDR works implemented under component 4. For each of the above mentioned 10 schemes, PCU will prepare and send to the Bank before October 31, 2016 the following information that will be collected from the respective regional offices and adjusted by PCU: (i) crop and activity budgets showing average yields before and after the improvements, together with farm-gate prices, cost of production, gross and net revenues per ha (for crops) for production unit (for livestock and fisheries), to represent the major agricultural activities in each scheme's command areas (following formats provided by the mission); (ii) area cropped, approximate numbers of livestock (cows, goats and poultry) and fisheries activities in the command area of improvements, both before and after works were completed for each of the 10 schemes; and (iii) actual investment and estimated annual operation and maintenance costs of works completed for each scheme.

18. It was also agreed that summary cost and financing tables per component will be prepared showing in three columns the: (i) appraisal estimates, (ii) revised estimate prepared when the project was restructured, and (iii) actual costs at project closing. The mission provided a format for the cost and financing summary tables. It was agreed that these would also be sent to the Bank before October 31, 2016. With the information to be sent by PCU, the mission will finalize a first draft of the economic and financial analysis by mid November 2016 which would be sent to PCU for revision and validation.

Results Framework (updated as of March 2016)

Indicators	Unit of Measure	Baseline	Cumulative Target Values				
			2011-12	2012-13	2013-14	2014-15	2015-2016
Revised Project Development Objective: To improve water resources management by improving infrastructure and institutions through rehabilitating damaged water infrastructure, piloting the role of local communities and enhancing the institutional performance of the Country's principal institutions, particularly BWDB and WARPO							
Indicator One: A reduction in the level of damage to property and assets that is to the satisfaction of the communities in 60% of completed project schemes	Value of damage in Taka	BDT 79.9 Billion in total damage, 2007 ¹ BDT 4.9 Billion in damages to all embankments and water control structures, 2007 ¹ BDT 5559.2 Million in damages in 475 BWDB schemes, 2007 ² BDT 322.8 Million in damages in 39 WMIP sample project schemes, 2007 ²		In progress	Less than baseline in 60% of completed project schemes	Less than baseline in 60% of completed project schemes	Less than baseline in 60% of completed project schemes
<i>Achieved</i>			0	Schemes started in 2012-13	60% of completed schemes	Achieved in 60% of completed schemes	Achieved in more than 60% ² of completed schemes

² BWDB is carrying out a detailed assessment and will include information in Government implementation completion report to be shared with the Bank team.

Indicator Two: About 60% reduction in crop area damaged by floods/cyclones in 60% of completed project schemes starting 2014-15	Hectare	Total of 186,883 ha fully damaged and 498,645 ha partially damaged, 2007 ³ 27,100 ha damaged in 23 WMIP sample project schemes, 2007 ⁴		In progress	60% lesser than baseline in crop area in 60% of completed project schemes	60% lesser than baseline in crop area in 60% of completed project schemes	
<i>Achieved</i>			0	Schemes started in 2012-13	60% of completed schemes	Achieved in 60% of completed schemes	Achieved in more than 60% of

Indicators	Unit of Measure	Baseline	Cumulative Target Values				2015-2016
			2011-12	2012-13	2013-14	2014-15	
							completed schemes
Indicator Three: About 60% of completed project schemes have WMOs functioning in accordance with their roles and responsibilities agreed upon in the management plan	% of completed project schemes	22% of WMIP sample project schemes with WMOs ⁵		In progress	WMOs in 50% of completed project schemes	WMOs in 60% of completed project schemes	
<i>Achieved</i>			0	WMOs formation underway	50% of completed schemes	Achieved in 60% of completed schemes	Achieved in 100% of completed schemes
Immediate Result (Component One): Improved water resources management capacity of the local communities to participate actively in the planning and management of flood control, irrigation and drainage schemes							

Intermediate Result Indicator One: Successful completion of rehabilitation and improvements in 100% of targeted project schemes	% of targeted project schemes	Not applicable		60% of targeted project schemes completed	97% of targeted project schemes completed	100% of targeted project schemes completed	100% of targeted project schemes completed
<i>Achieved</i>			0	60%	90%	98%	100%
Intermediate Result Indicator Two: Operational water user associations created and/or strengthened (number) (Core sector Indicator) <u>Detailed text as per original indicator:</u> Signed agreement between BWDB and WMOs completed in 100% of completed project schemes	Number □ % of completed project schemes	Not applicable		In progress	50% of completed project schemes	785 WMOs formed and received training 100% of completed project schemes	788 WMOs formed and received training 100% of completed project schemes
<i>Achieved</i>			0	Initial mobilization underway	50% schemes have WMOs	100% schemes have WMOs	100% schemes have WMOs
Immediate Result (Component Two): Improved culture and practice of O&M planning and execution within BWDB and improved capacity of the local communities to participate actively in operations and maintenance of flood control, drainage and irrigation schemes							

Indicators	Unit of Measure	Baseline	Cumulative Target Values			
			2011-12	2012-13	2013-14	2014-15

Intermediate Result Indicator One: Timely completion of need based O&M assessment and allocation of BWDB's O&M budget for 100% of completed project schemes	% of completed project schemes	Not applicable				Completion of need-based O&M assessment and allocation for 2015-16 from BWDB's O&M budget for 100% of completed project schemes	
<i>Achieved</i>						To be completed in current budget planning cycle	100%
Intermediate Result Indicator Two: Compliance to participatory monitoring system in 100% of completed project schemes ⁶	% of WMOs in completed project schemes	Not applicable			80% of WMOs in completed project schemes	80% of WMOs in completed project schemes	
<i>Achieved</i>					Compliance in 80%	Compliance in 100%	Compliance in 100%
Immediate Result (Component Three): (a) BWDB provides responsive, effective and efficient services to its clients for water resources management; and (b) WARPO provides responsive, effective and efficient support to Government policy and macro-level water resources planning							
Intermediate Result Indicator One: BWDB's institutional reform plan completed by June 2011 and approved by December 2012		Not applicable		Institutional reform plan completed and approved ⁷			
<i>Achieved</i>				Completed			

Intermediate Result Indicator Two: Following BWDB's approved institutional reform plan, new staffing plan completed and approved by Dec 2012		Not applicable		New staffing plan completed and approved			
<i>Achieved</i>				Completed			
Intermediate Result Indicator Three: Following (1) and (2), HRD plan completed by June 2013		Not applicable		HRD plan completed			
Indicators	Unit of Measure	Baseline	Cumulative Target Values				
			2011-12	2012-13	2013-14	2014-15	2015-2016
<i>Achieved</i>				Completed			
Intermediate Result Indicator Four: WARPO's institutional reform plan completed by December 2011		Not applicable				Institutional reform plan completed and approved ⁸	
<i>Achieved</i>						Plan completed	Plan completed
Intermediate Result Indicator Five: Updated NWRD database with enhanced data layers completed and disseminated	% completion	Status of database		In progress	50% completion	100% completion	
<i>Achieved</i>				Database initiated	50% progress	80% progress	80% completed
Immediate Result (Component Four): Improved water resources infrastructure in areas in need of emergency rehabilitation							

Intermediate Result Indicator One: Successful completion of rehabilitation and improvement in 100% of target	% of target	Not applicable		60% of targeted works ⁹	80% of targeted works ⁹	100% of targeted works ⁹	
<i>Achieved</i>				60% completed	80% completed	98% completed	100% completed

Notes:

- 1 *Cyclone Sidr in Bangladesh: Damage, Loss and Needs Assessment for Disaster Recovery and Reconstruction, April 2008 [A report prepared by GoB assisted by the International Development Community with financial support from the European Commission.]*
- 2 *Summary of Damages of BWDB's Infrastructure Due to Flood 2007, BWDB [printed material].*
- 3 *National Plan for Disaster Management, 2010-2015, Disaster Management Bureau, Disaster Management and Relief Division, April 2010. 4 Various sources including CEGIS database, PRA Reports and EIA Reports.*
- 5 *Preliminary based on sample schemes with available PRA reports.*
- 6 *Refers to compliance to participatory monitoring of O&M plan.*
- 7 *Refers to progress reporting of Package BWDB-S5 Consultant activities to support the implementation of institutional reforms, which include work on organization set-up, skills mix and dissemination of information on reforms.*
- 8 *Progress reporting will include the implementation of recommendations in the approved Final Report on Strengthening of WARPO Organizational and Institutional Development as well as those in the Organizational Development Plan that has been approved by the WARPO Board.*
- 9 *FDR works are categorized as: [a] length of embankments in km; [b] WCS in number; and [c] length of protection works in km.*

Implementation status of Agreed Actions during March and September 2016 mission

Agreed Actions and Timeline	Time Frame to complete	Responsibility
Confirm transfer of BDT 28,983,033.67	Completed	PIU
The Closing Date of the Credit is June 30, 2016 and the Deadline for submission of withdrawal applications against the eligible expenditures	Due October 31, 2016	PIU
BWDB to prepare a detailed plan for sustainability of WMOs post-WMIP and identify specific actions	December 20, 2016	BWDB
CWM to complete registration of remaining WMOs and management transfer	Completed	CWM
BWDB to prepare project implementation completion and results report and send to the Bank	Due October 31, 2016	BWDB
BWDB will carry out a full review of the scheme implementation process to confirm that Bank OP 4.12 and/or OP 4.10 was not triggered and Resettlement Policy Framework was fully complied	December 20, 2016	BWDB
Ensure staff retention for closing of project and preparation of reports by BWDB and WARPO	Completed	BWDB/WARPO
WARPO DG to ensure that the FM Consultant is retained after June 30, 2016 with Government resources to ensure proper closing of all project accounts	Completed	WARPO

Summary of Agreed Actions and Time line for the preparation of ICRR

Action	Responsibility	Due date
Complete the full draft of PCR and share with the Bank Task Team	BWDB	October 31, 2016
Reconcile project accounts and submit the withdrawal applications to the World Bank	BWDB, WARPO	October 31, 2016
Economic and financial analysis		
Collect the following data and send to the Bank Task Team: (i) crop and activity budgets showing average yields before and after the improvements, together with farm-gate prices, cost of production, gross and net revenues per ha (for crops) of for production unit (for livestock and fisheries), to represent the major agricultural activities in each scheme's command areas (following formats provided by the mission); (ii) area cropped, approximate numbers of livestock (cows, goats and poultry) and fisheries activities in the command area of improvements, both before and after works were completed for each of the 10 schemes; and (iii) actual investment and estimated annual operation and maintenance costs of works completed for each scheme.	PCU	October 31, 2016
Prepare and send to the Bank Task Team, summary cost and financing tables per component showing in three columns: (i) appraisal estimates; (ii) revised estimate prepared when the project was restructured, and (iii) actual costs at project closing.	PCU	October 31, 2016
ICR preparation time line		
Draft ICR Ready		November 10, 2016
Government comments on the draft ICRR		November 20, 2016
QER		December 2, 2016
Final ICR		December 12, 2016
Submission of ICR to CMU		December 15, 2106
Submission of ICR to Sr. Director		December 19, 2016