



1. Project Data:		Date Posted : 07/31/2002	
PROJ ID: P009545		Appraisal	Actual
Project Name: River Bank Protection	Project Costs (US\$M)	156.0	192.0
Country: Bangladesh	Loan/Credit (US\$M)	121.9	149.2
Sector(s): Board: ENV - Flood protection (93%), Central government administration (6%), Other social services (1%)	Cofinancing (US\$M)		
L/C Number: C2791			
	Board Approval (FY)		96
Partners involved :	Closing Date	12/31/2000	12/31/2001
Prepared by :	Reviewed by :	Group Manager :	Group:
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2. Project Objectives and Components

a. Objectives

The major project objective was to prevent erosion of riparian land at two locations on the west bank of the Brahmaputra River by the construction and maintenance of improved river bank protection works .

A second objective was to assist the Government of Bangladesh (GOB) in developing permanent institutions for improved water sector planning, preserving the institutional capacity developed under the Flood Action Plan (FAP) and making multi-disciplinary planning part of Bangladesh's normal water sector planning processes .

b. Components

The project had the following components :

River Bank Protection:(US\$ 147 million - 94 percent of project costs):

- Rehabilitation and construction of river bank protection works at two sites on the Brahmaputra River's west bank;
- land acquisition and a program of resettlement for people displaced by project works;
- technical assistance for implementation and maintenance support of works constructed under the project; and
- establishment, staffing and initial funding support for an O&M unit in the Bangladesh Water Development Board (BWDB) to maintain the protection works constructed under the project, and procurement of vehicles and equipment for the O&M unit.

National Water Planning etc.: (US\$ 9.0 million - 6 percent of costs):

- Institution building assistance to the Water Resources Planning Organization (WARPO) to integrate the FAP within the framework of national water planning, produce a national water management plan and a portfolio of investment projects for the medium and long -term, and upgrade integrated water sector planning capability; and
- technical assistance to BWDB to improve the operation of the new regional accounting centers, and provision of equipment and transport to improve project supervision capability in the field and internal communications.

Supplementary Funding:

Following major floods in 1998 that damaged ongoing works, financing for *supplementary works* costing US\$ 36 million was approved in FY 1999 for additional activities:

- undertaking remedial measures for protection works at the project's river bank protection sites that had been damaged in the floods;
- rehabilitating flood control, drainage, irrigation and erosion control facilities at some 40 sites across the country;
- financing the gap due to the depreciation of the dollar after initial project approval in FY 1996; and

- preparing a longer term plan for river bank protection and designing a follow-up river bank protection project to protect critical sites subject to erosion.

c. Comments on Project Cost, Financing and Dates

Estimated costs at appraisal for the original project were US\$ 156 million and the supplementary work approved in 1999 was estimated to cost US\$36 million, a total of US\$192 million. IDA financing totaled US\$166.9 million (US\$121.9 million for the original project and the supplement of US\$45 million, of which US\$7.1 million was added to offset the impact of the declining value of the dollar.) Due in part to the damage inflicted by the 1998 flood, project completion was delayed by one year.

3. Achievement of Relevant Objectives:

The major objectives of the project were achieved. The river bank protection works constructed by the project are now preventing land loss and property destruction. The works have successfully provided protection for Siranjanj town and have prevented the merger of the Brahmaputra River with the Bangali River, which would have led to extensive flooding and property damage. The water sector planning objective was substantially achieved with the successful preparation of a National Water Management Plan (NWMP) and the related development and capacity building of WARPO.

Note:

The appraisal report estimated that the ERR of the project was 39% whereas the ICR estimate is 16%. However, this difference is more apparent than real. The appraisal estimate was based on the assumption that project benefits would be achieved in Year 1, despite the fact that the project works would take at least two to three years to complete. The appraisal included a sensitivity analysis that estimated that, with a two year delay in achieving the benefits, the ERR fell to 17%. This should have been the appraisal base estimate as its actual base estimate was in fact infeasible.

In the event, the project was subject to a one-hundred year flood in Year 3 (1998), and some damage was inflicted on the works already constructed. In that year the benefits may have exceeded the average figure used in the post-project analysis, so that the actual rate of return may have been higher than the estimate made in the ICR. On the other hand, the effects of cost increase at Sirajganj to repair the river protection works damaged during the floods and stagnant crop prices in the last decade which were different from appraisal projections worked towards bringing down the ERR.

4. Significant Outcomes/Impacts:

River Bank Protection:

- The main protection works were not completed when the 1998 floods hit, and they sustained some damage. However, they did provide a degree of protection to Siranjanj town. Some rebuilding was needed after the flood, but the works have not been damaged by any subsequent flood and they are providing the anticipated protection.
- The land acquisition and resettlement activities have been undertaken as programmed in the Resettlement Action Plan (RAP), and this provided considerably enhanced benefits over and above the normal provisions of GOB policy on resettlement and rehabilitation. Some 120 hectares were acquired and 421 homesteads relocated, involving just over 2,000 people.
- The O&M unit in BWDB was established and is functioning satisfactorily and is monitoring and surveying the completed works throughout the year, as planned.

National Water Planning etc.

All the major elements of this program were achieved: the institutional strengthening of WARPO; establishment of a national water resources database; and preparation of the NWMP.

It was decided not to proceed with the technical assistance to BWDB to upgrade the regional accounting centers, since it had been agreed that this work would be undertaken with other external assistance.

Supplementary works:

The works planned in the supplementary credit have been completed and are in satisfactory condition. Some problems arose, however, due to the widely scattered nature of the works and the fact of their being of an emergency nature. Possibly because of lack of familiarity in the field with Bank procurement guidelines and inadequate communication from the center, it was found that the relevant Bank procedures had not always been followed in tendering and awarding the 309 relatively small contracts. A review of the documentation led to misprocurement being declared for 67 of the contracts.

5. Significant Shortcomings (including non-compliance with safeguard policies):

There were no significant shortcomings but there were some problems encountered related to the use of TA and other external inputs. An independent panel of experts, comprising national and international consultants, was appointed to advise WARPO on technical matters associated with the preparation of the NWMP. The potential benefits of the panel's advice was limited by the fact that there was no clear leadership of the panel, leading to an

unfocused approach in their interactions with WARPO and the other TA . Also the multiplicity of TA teams posed a major challenge to WARPO in terms of coordination and reconciling the conflicting views . WARPO (ICR Annex 8, page 40 para 11) has further pointed out that the absence of timely interaction between the NWMP consultants and its staff on different issues as well as lack of specificity in the TOR for the independent panel of experts led to sub-optimal use of their services.

After the 1998 floods the BWDB appointed a panel of experts to review the work of consultants on the failed portion of the Siranjanj protection work . The panel concluded that the design had been deficient . However, the consultant counterclaimed that the design had met the pre-agreed design standards and that the damage had been the result of a one in a hundred year flood . GOB subsequently accepted this position . The Bank has asked that the matter be further reviewed and the positions reconciled .

6. Ratings :	ICR	OED Review	Reason for Disagreement /Comments
Outcome :	Satisfactory	Satisfactory	
Institutional Dev .:	Modest	Modest	
Sustainability :	Likely	Likely	
Bank Performance :	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	While the overall Borrower performance was satisfactory, it was marred by the poor procurement performance on the smaller-scale elements of the Supplementary Works program.
Quality of ICR :		Satisfactory	

NOTE: ICR rating values flagged with '*' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

The following lessons noted by the ICR are of broad applicability :

- Use of an Independent Panel of Experts (IPOE) (or similar body) will be effective only when the implementing agencies (IAs) and the IPOE clearly understand the TORs, and if the IAs adequately manage the panel's outputs.
- To ensure cost-effectiveness, Technical assistance (TA) must be pro-actively managed by the contracting project agency from the outset of the consultants' assignments . Without good management, TA inputs in the early days of the assignment tend to be squandered, often resulting in reduced and delayed delivery of TA outputs.

8. Assessment Recommended? Yes No

9. Comments on Quality of ICR:

This is a well written and balanced ICR and is assisted by a good quality contribution from the Borrower .