

THE INSPECTION PANEL

**Request for Inspection
Bangladesh: Jamuna Bridge Project
(Credit 2569-BD)**

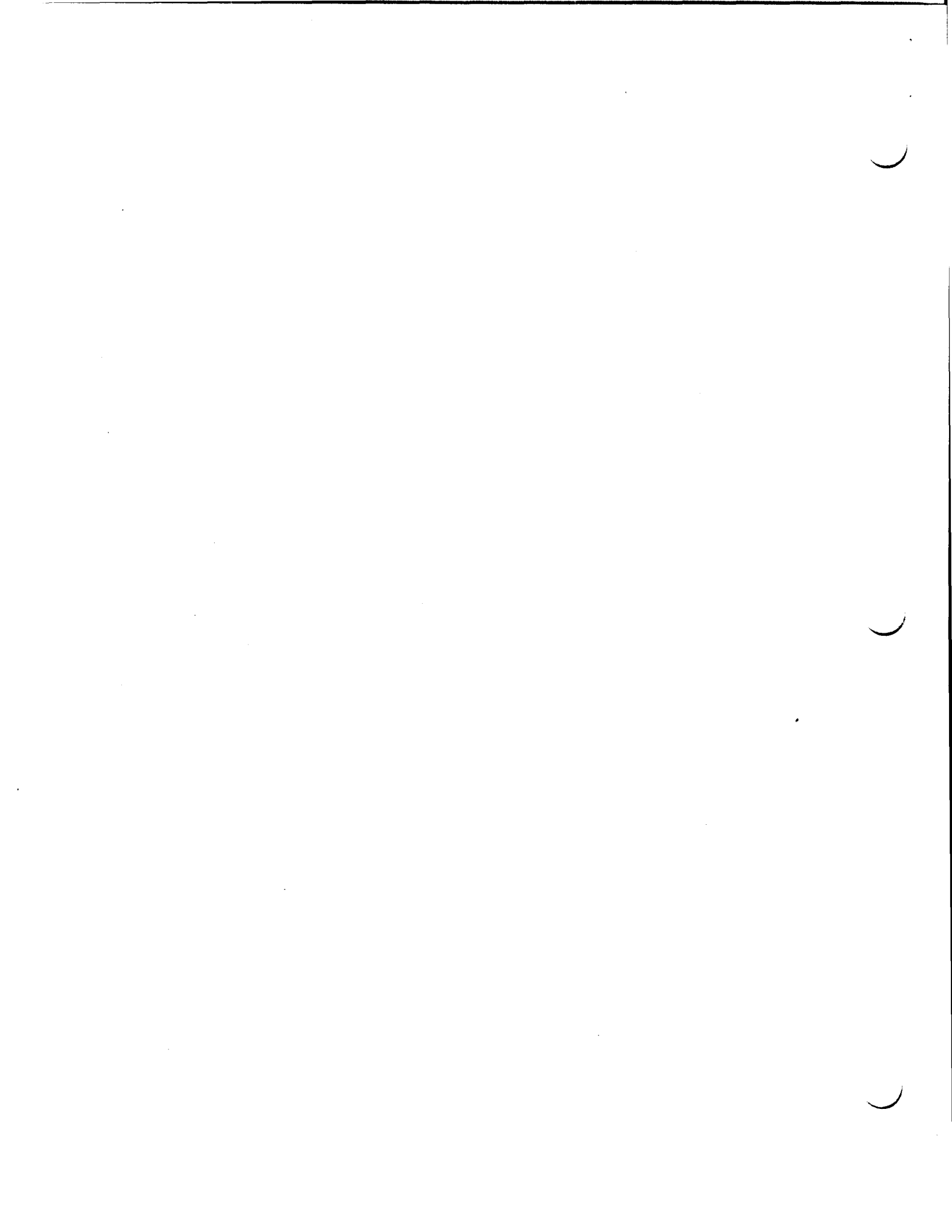
**Report on Progress on Implementation of the
Erosion and Flood Action Plan**

August 14, 1998



List of Acronyms

BRAC	Bangladesh Rural Advancement Committee
DHI	Danish Hydraulic Institute
EAP	Environmental Action Plan
EFAP	Erosion and Flood Action Plan
EMAP	Environmental Management Action Plan
GRC	Grievance Redressal Committee
JCIDP	Jamuna Char Integrated Development Project
JMBA	Jamuna Multipurpose Bridge Authority
RRAP	Revised Resettlement Action Plan
SWMC	Surface Water Modelling Centre



EXECUTIVE SUMMARY

1. On August 23, 1996, the Inspection Panel received a Request for Inspection filed by a local NGO representing *char* dwellers whom it claimed had been adversely affected by construction of the Jamuna Multipurpose Bridge Project in Bangladesh¹. The Request claimed that damage to the *chars* had hurt *char* dwellers, who were not included in the project's resettlement action plan.
2. In its Response to the Request for Inspection, Management noted that the *char* people were to be compensated under the Erosion and Flood Action Plan (EFAP), which was approved by the Borrower and the project executing entity, JMBA (the Jamuna Multipurpose Bridge Authority), after the Request was filed. In assessing the Request, the Panel therefore focused on the execution of the EFAP, devoting particular attention to the project's effects on people living in the bridge impact area, where the adverse effects of the project on *chars* are expected to occur. The Panel concluded that although some policies and procedures on resettlement and environmental assessment had not been followed, the EFAP seemed to address the Requester's concerns, obviating the need for a full investigation. The Board accepted the Inspection Panel's recommendation and asked Management to submit a progress report on the implementation of the Revised Resettlement Action Plan (RRAP) and the Environmental Action Plan (EAP). The report was submitted to the Board May 21, 1998.
3. As mandated by the Board, the Inspection Panel reviewed the EFAP aspects of the progress report and visited the project area to consult with project officials, Bank staff, NGO representatives, the Requesters, and people living in the *chars*. It concluded that despite some delays and problems, the overall approach of BRAC (Bangladesh Rural Advancement Committee), the NGO responsible for executing the technical aspects of the EFAP, is appropriate, and its success at identifying people affected by the project, estimating the damages incurred, and initiating payment of compensation (with borrower funds) has been impressive. Some procedural omissions during project preparation continue to cause problems, however. *Char* people have complained that the affected *chars* have not been demarcated accurately and that the cost of obtaining the documents required to file for compensation is too high. Confusion over demarcation has been caused by both initial deficiencies in the public information and consultation process and the fact that the media and other sources have provided incorrect information on the areas affected. Addressing the problem will require providing correct information on the impact of the project on the *char* people. The task

¹ Islands in the Jamuna River are called *chars*. An estimated 4 million people, known as *char* people, live on these islands. Flooding during the monsoon season regularly submerges fields and settlements - sometimes temporarily, sometimes permanently- making the *char* people a particularly vulnerable group in Bangladesh.

will not be easy, and BRAC will need the full support of the JMBA and the Bank. The problem of the high cost of obtaining documentation can be ameliorated by providing additional support to claimants through BRAC and possibly other NGOs.

4. Since the impact area was first estimated new measurements and further projected measurements suggest that the impact area may be larger than originally estimated. These new estimates may require a change in the definition of the impact area in the EFAP and, therefore, possibly an extension of the EFAP's time limit beyond year 2000. If these changes to the EFAP are made as needed, the remedial measures in place for addressing the concerns raised in the Request should be adequate.

5. Continued meaningful participation by the *char* people as well as Bank supervision and constant monitoring of the compensation process will be necessary.

THE JAMUNA MULTIPURPOSE BRIDGE PROJECT
(Cr. 2569-BD)

The Request for Inspection, the Response by Management and the Inspection Panel Report

1. On August 23, 1996, the Panel received a Request for Inspection filed by a local NGO, the Jamuna Char Integrated Development Project (JCIDP). The Request alleged that *char* dwellers living in the project area who were adversely affected by construction of the bridge were not included in the project's resettlement action plans. The Requesters accused Management of violating IDA policies on Environmental Assessment (OD 4.00 and Annexes), Environmental Action Plans (OP 4.02), Involuntary Resettlement (OD 4.30), and Involvement of NGOs in Bank-Supported Activities (OD 14.70) and called for payment of compensation to *char* dwellers who incurred losses as a result of the project. Management's Response to the Request stated that Management had complied with all applicable IDA policies and procedures, adding that IDA had shared for some time the concerns of the Requesters. It also noted that although the project is likely to cause erosion, redirection of the river is also likely to stabilize some of the *chars*. It also noted that *char* dwellers were to be included in the EFAP, which was approved by the borrower and the board of the project executing agency, JMBA, on September 7, 1996 (that is, after the Request was filed with the Panel).

2. The Jamuna Multipurpose Bridge Project involves constructing, operating, and maintaining a bridge over the Jamuna River connecting eastern and

western Bangladesh. The goal of the project is to stimulate economic growth by facilitating the rapid transport of passengers, freight, and transmission of power within Bangladesh. Construction of the bridge began in 1995; the bridge was opened June 23, 1998.

3. After evaluating the Request and Response, the Panel determined that although the project apparently did not comply initially with various IDA policies and procedures, the EFAP appeared to constitute an adequate and enforceable framework within which Management could address the Requester's concerns and that investigation of the matters alleged in the Request was therefore not warranted. As it stated in the Report and Recommendation it submitted to the Board December 2, 1996:

The Panel is satisfied that the Request meets the eligibility criteria set forth in paragraphs 12 to 14 of the Resolution and reflects the legitimate concerns of people that have or may be adversely affected by the project. The fact that about 3,000 people signed the Request cannot go unnoticed. These people have been left uninformed and out of the design and appraisal stages of the project, including the environmental and resettlement plans aimed at mitigating adverse effects on people and nature.

Pursuant to the Resolution, the Panel has reviewed the Request and the evidence

submitted by Management that it has complied or intends to comply with the relevant policies and procedures. The Panel is not satisfied that the policies and procedures on Resettlement (OD 4.30), and Environmental Assessment (OD 4.00, Annexes) have been fully complied with, regarding the *chars* and the *char* people in the Jamuna River, both because the plans to mitigate or compensate any adverse effects on their lands or source of work and livelihood have been either incomplete or late in development. More importantly – because so far they have not been appropriately informed about the project and invited, or allowed to participate in the design and implementation of mitigation and compensation activities – the policies on participation appear to have been and continue to be violated.

The Panel is aware of the unique and complex challenges posed by this project, and acknowledges the efforts of staff and Management to ensure its success. The Panel believes the EFP issues after the Request was filed could constitute an adequate and enforceable framework that would allow – and show the intentions of – Management to comply with the policies and procedures relevant to the Requesters' concerns. This framework, however, would have to be revised and expanded to meet policy requirements and a full and informed participation of affected people would be needed

to ensure its success. Also a balanced supervision and constant monitoring should help overcome existing institutional weaknesses and assure timely remedies for emerging problems. In this context, the Panel feels that an investigation of the matters alleged in the Request is not warranted at this time.

4. On April 3, 1997, the Board of Directors considered the Panel's Report and Recommendation and approved its recommendation not to carry out a full investigation. The Board, however, asked Management to provide it with a progress report on implementation of the Revised Resettlement Action Plan (RRAP) and the Environmental Action Plan (EAP), which was to be reviewed by the Board with the participation of the Inspection Panel.

Management's Progress Report on Implementation of the Revised Resettlement Action Plan (RRAP) and the Environmental Action Plan (EAP)

5. On May 21, 1998, Management submitted the Progress Report on the RRAP and EAP (the Report). The Report, based largely on the findings of the project's Ninth Milestone Meeting, held in March 1998, notes that the bridge was opened June 23, 1998, one year ahead of the loan closing date; that the total project costs of \$733 million remained close to the magnitude of the original estimate; and that the project was overwhelmingly supported by Bangladesh, donor countries, and donor institutions, which recognized the obvious economic benefits of linking the eastern and western parts of

Bangladesh, thereby facilitating the rapid transport of passengers, freight, and transmission of power. The Report also describes the state of the RRAP, the EFAP, and the Environmental Management Action Plan (EMAP) and concludes that the project's progress is satisfactory "in terms of construction, costs, schedules, and socioeconomic programs for affected people."

6. The Panel's Review focuses on the EFAP which was the subject of the Request for Inspection. For the purposes of this review, the Panel interviewed staff, reviewed available documents, met with government officials and consultants, and visited the project area. The Panel also consulted the alternate Executive Director representing Bangladesh. His advise, as well as the support and arrangements set by the Bank's resident office were extremely valuable for the success of the mission.

Execution of the Erosion and Flood Action Plan

7. Given the difficulty of identifying the cause of erosion or flooding, the Government of Bangladesh and IDA agreed not to try to determine whether erosion or flooding had, in fact, been caused by construction of the bridge but to compensate all adversely affected people within specified geographical boundaries. Compensation payments would begin once the western channel was closed and would continue until three years after the east guide bunds were completed. Both the erosion and flooding boundaries and the time period within which compensation may be paid

would be reviewed by JMBA in the light of events and experience.

8. The EFAP defines the impact area as follows:

Erosion Boundaries

Northern Boundary: A straight line drawn between the southern end of the Sirajganj Hardpoint on the West Bank and the northern end of the Bhuapur Hardpoint on the East Bank.

Southern Boundary: An East-West line drawn across the River Jamuna at a distance of 10 km due north of the East End Pier of the bridge.

Flooding Boundaries

Northern Boundary: An East-West line drawn across the River Jamuna at a distance of 12 km due north of the East End Pier of the bridge being the upstream limit of increased flooding due to the bridge.

Southern Boundary: An East-West line drawn across the River Jamuna through the East End Pier of the bridge being the downstream limit of increased flooding due to the bridge.

The Independent Review Panel

9. In June 1996 the cofinanciers of the Jamuna Bridge Project—the International Development Association (IDA), the Overseas Economic Cooperation Fund (OECF), and the

Asian Development Bank (ADB)—funded an Independent Review Panel (IRP), made up of four independent international experts. The purpose of the panel was to propose revisions to the content and schedules of the EMAP and RRAP in order to improve their effectiveness and capacity to achieve their intended objectives. The IRP also defined specific milestones (key indicators) for the EMAP and RRAP, including monitoring requirements and measurement of progress, that are tied to the implementation plan for civil works. The IRP's draft final report was submitted to the cofinanciers in 1996 but it has not yet been finalized.

10. At the time the Request for Inspection was submitted to the Inspection Panel, the IRP was in Bangladesh reviewing the project for its report to the cofinanciers. The IRP conducted its own evaluation of the allegations raised in the Request .

11. After meeting with *char* people who may have been affected by the project, the IRP initially concluded that none of the potential impacts on the *chars* and the *char* people had been dealt with in the EMAP or RRAP, although it did note that the *char* people could fall under the rubric of Category 14 within the Resettlement Compensation and Rehabilitation Policy. According to the IRP, failure to address the impact on the *char* people was particularly noteworthy in the agriculture sector, where *char* land cropping patterns, for example, were not covered in the agriculture monitoring contract. Impacts on the fisheries sector were also overlooked. Noting the absence of an awareness campaign in the build-up to

construction, the IRP called for a wider dissemination of information once the (EFAP) was in place. It also noted that like other NGOs in Bangladesh, the JCIDP does not oppose the bridge project, adding, however, that there is interest among NGOs in obtaining contracts related to the execution of the project.

Implementing Agency

12. BRAC, a Bangladeshi development organization with a total staff of more than 50,000, was hired by JMBA to carry out the technical aspects of the EFAP. BRAC has allocated a skilled and committed team to execute this task. This team is responsible for identifying people affected by the project, quantifying damages incurred as a result of erosion and flooding, and initiating payment of compensation. BRAC's organization, skills, and commitment to development are highly regarded both in Bangladesh and abroad, and many international agencies provide funding for its programs.²

13. BRAC reported on the status of the EFAP in a special report dated June 17, 1998. Documents reviewed by the Inspector during the field visit and an *aide-memoire* by Ecosystems Sciences, a consultant to the project, confirms the following findings of that report:

14. *Mouza* (village) demarcation for losses incurred during 1995–1996 is nearly complete. Erosion was found to have taken place in 60 of 119 *mouzas*

² (See Also) The Economist. July 15th 1998, page 42.

during 1995–1996 and in 48 *mouzas* during 1997. Demarcation of 1997 erosion losses is under way.

15. Some 28,000 households have been identified as living in the project impact area. About 8,000 claims are expected to be filed for compensation for losses caused by erosion during 1996 and 1997. As of mid-June 1998, 4,291 claims had been received, out of which 2,007 claims had been settled, at a cost of Tk. 10.2 million. Of these, 167 claims (4 percent of the total) were filed by women.

16. About 1,740 people whose household structures were damaged as a result of erosion during 1996 have been found eligible for compensation. As of mid-June 1998, 1,521 of these people (87 percent) had filed claims for compensation, 98 percent of which had been paid. Payment of another 1,200 new claims for household structures losses in 1996 began in July, 1998. Other cases of damage in 1996 to assets other than land (incurred by weavers, sharecroppers, and others) have also been identified. These cases were expected to be addressed by Grievance Redressal Committees (GRCs)³. Payment of compensation to

³ The Grievance Redressal Committee (GRC) is the component of the EFAP intended to address grievances. The GRCs are extralegal semistructured organizations that are not competent to handle any issue having legal implications. Their decisions are subject to question in a court of law. The main objective of the GRC is to resolve disputes at the grassroots level in order to avoid lengthy judicial procedures. The scope of the GRC is limited to issuing new Resident Registration Cards (RRCs), Non-Resident Registration Cards, (NRCs), and sub-

434 people whose household structures were damaged as a result of erosion during 1997 was also approved. As of mid-June 1998, 343 of these people (79 percent) had filed claims for compensation, 97 percent of which had been paid.

17. Some 4,099 people claim that they were missed by the baseline survey for household registration that BRAC conducted in 1996. Following a directive of JMBA, a second survey was conducted within the erosion boundary area. The findings of the survey were verified by the GRCs, which recommended that resident and non-resident cards be issued.

cards; correcting incorrect names on the cards; handling succession cases; and resolving *mouza* demarcation disputes, disputes among co-sharers, and inter- and intrafamily disputes.

A GRC is made up of five members. The Deputy Director or Assistant Director of JMBA's Resettlement Unit serves as committee chair. Other members include a representative of BRAC, the chair of the local union *parishad*; a female union *parishad* ward member or block member, and the headmaster or master of the local high school or the headmaster of the local primary school.

To file a grievance, an Erosion and Flood Affected Person (EFAP) must file an application with the Chairman of the GRC. The petitioner can send the application to the GRC chair, or BRAC staff can deliver the application in favor of the EFAP. The GRC chair usually forwards the application to the BRAC representative on the GRC for necessary action, although GRC chairs can also investigate cases themselves. Decisions regarding identification and subcards, name changes, or succession cards are made upon the request of the BRAC representative to GRC, and decisions on these matters are made on the spot. For other matters, a hearing date is set by the GRC chair, after consultation with the union *parishad*.

18. **Grievance Cases.** More than 100 GRC meetings have been held in the project area to examine 157 claims by people who claim to have been excluded from compensation. To date GRCs have confirmed the complaints of 108 of these cases. Twelve cases have been rejected, and 37 cases are awaiting decisions by GRCs.

Findings of the Inspection Panel Review

19. The Panel's Review is based on its previous findings, Management's progress report, data and information obtained during a field visit to the project area in June 1998, and interviews with project officials and consultants, IDA staff, the Requesters, and other people affected by or related to the project. The Review focuses on progress toward mitigating the adverse effects of the project on *char* people and the adequacy of the project's remedial measures.

The Impact Area Appears to Be Broader than Originally Estimated

20. The expected impact area – the area within which the project could cause flooding or erosion of *chars* – was demarcated on the basis of physical and mathematical models constructed by Surface Water Modelling Centre (SWMC) and the Danish Hydraulic Institute (DHI), consultants financed by IDA. A SWMC brochure describes its project task as follows:

Two guide banks narrowing the river at the bridge site have been constructed. A model study has been conducted to forecast the critical morphological and

hydrodynamic conditions during various stages of construction. The approach is based on the combined use of one and two dimensional hydrodynamic and morphological models to determine the bed level changes and associated bank erosion rates. The model was applied to predict the hydrodynamic and morphological changes throughout the 1996 monsoon season. The results of the 2D model showed that confluence and constriction scour will take place between the guide banks, bank erosion will increase along the left bank downstream of the bridge site, and a new channel downstream of the western guide bank will develop. The one dimensional generated model predicted a 0.5 m rise in water level between 10 km and 15 km upstream of the bridge.⁴

21. The SWMC report concluded that “confluence and constriction scour will take place between the guide banks, bank erosion will increase along the left bank downstream of the bridge site, and a new channel downstream of the western guide bank will develop.”

22. According to SWMC experts interviewed by the Inspector, recent measurements and projections seem to indicate that the impact area could be larger than previously estimated. Given these findings the EFAP may have to be revised to redefine the impact area and

⁴ Publication of the Surface Water Modelling Centre, Dhaka, Bangladesh. pg. 10. Internet: URL:<http://www.swmc.bangla.net>

time limit for compensation. As noted above, the EFAP provides that both the erosion and flooding boundaries and the time limit within which compensation would be paid may be reviewed by JMBA in light of the events and experience.

23. The Panel was informed by staff that "a meeting was convened at SWMC comprising representatives from JMBA, Management Consultants and the Bank to discuss the possibility of revision to the EFAP impact area. It was agreed that the developments in this regard will be reviewed after submission of the final report on the 'Study of the Mathematical Morphological Model of the Jamuna River at the Bangladesh Bridge site' (jointly prepared by the Danish Hydraulic Institute (DHI) and SWMC) in December, 1998." The meeting also agreed not to recommend for any adjustment of the EFAP boundary based on the preliminary findings by SWMC.

Lack of participation of people affected by the project

24. The nature of the project required that an extensive education and participation campaign be carried out to reach people likely to be affected by the project. According to the Panel's Report and Recommendation, efforts to do so were inadequate:

... the very filing of the Request and its contents in large part must be attributed to the fact that the *char* people were not included in the planning process, nor informed about what was being

considered for their benefit. Paragraph 41 of the Request, for example, shows that the people had no information on the possible adverse effects on them. Lack of information appears to have led *char* people to believe that everything adverse to their land is caused by the project. . . . the *char* people have a genuine fear and concern about the unknown potential impacts of the project on them.⁵

25. Failure to involve people affected by the project has caused confusion over which areas are included in the northern impact erosion area. This confusion has been exacerbated by the fact that the media and other sources, including publications issued by the cofinanciers, incorrectly reported that the northern erosion impact area extended 8 kilometers from the bridge. In fact, the impact area covers an area that is only about an average distance of 7.25 kilometers from the bridge. Confusion over the demarcation of the impact area boundary stems from the fact that the northern erosion impact area does not specify a given distance between the straight line drawn between hardpoints on the west and east banks of the river and the bridge. This area is not specified because the location of the two hardpoints and the curved structure of the bridge mean that the distance differs at every point. Since the problem of measuring the distance from the bridge was not explained adequately to the people affected by the project, they have taken the 8 kilometer impact area for granted.

⁵ Inspection Panel Report, paragraph 48.

26. BRAC is now involved in very heated disputes with people who want to renegotiate the set boundaries. In one case, the entire population of a *char* rejected compensation payments because a portion of their *char* was not included in the impact area.

Identification of People Affected by the Project and Calculation of Damages Have Been Difficult

27. The EFAP calls for grant compensation of owners, occupiers, tenants and sharecroppers, shopkeepers, artisans, and workers for losses caused by erosion or flooding in *chars* within the impact area. These grants would cover loss of land and crops as well as loss of structures on homesteads, trees, and commercial structures. (The compensation rules governing losses resulting from erosion are described in the Entitlement Matrix of the EFAP, shown in Attachment I).

28. A variety of factors has made it difficult to identify people affected by the project and determine the losses they incurred because of erosion. Some *char* dwellers have migrated to other *chars*, some of which are outside the impact area. Land in some areas has been eroded but not lost for cropping, making estimation of damages more difficult. Many *char* dwellers are illiterate and have had difficulty completing the necessary forms. Other *char* dwellers have complained about the high cost of obtaining the necessary documents, which the Requesters claim is almost equal to the compensation received.⁶

⁶ According to BRAC staff, legal documents required to file for compensation include the

BRAC has informed the Panel that they are aware of the excessive cost of these documents and that they are now helping claimants obtain documents to avoid or reduce substantially the informal fees. The participation of other NGOs with experience in *char* people issues could perhaps further alleviate the problem.

29. The procedures followed by BRAC to identify people affected by the project, evaluate their losses, and process payment of compensation are detailed and time-consuming, but they are essential given the lack of records on land, structures, and crops. BRAC has conducted two household surveys in the impact area. Through an information campaign based on brochures (see Attachment II) and oral presentations, BRAC alerted *char* dwellers that some of

purchase deed, the title registration, the ownership mutation record, and revenue receipts. Because purchase deeds are sometimes forged, the only reliable document for determining ownership is the ownership mutation record, on which the name of the seller is replaced with that of the purchaser. Until a mutation *porcha* is obtained, ownership remains in the name of the seller. People who inherit land must also obtain a mutation *porcha*; until they do so, land remains in the name of the deceased owner.

Obtaining a mutation *porcha* or official document updating ownership is a lengthy process that involves field investigation by the land administration officials and payment of onerous extralegal fees that can run as high as 75 times the official cost of Tk 15. As a result, purchasers or inheritors of rural land are often reluctant to update ownership. In recognition of the problem, JMBA had recently relaxed the requirements for claiming registration. Under the new regulations, a mutation *porcha* is no longer required for claiming compensation on inherited land on which the current user is recognized socially as the owner or on land of 10 decimals or less (a ceiling that may be raised to 20 decimals).

the losses they have incurred or may incur in the future may be covered by the EFAP. It then conducted a household survey and tried to register all people who may have been or in the future may be affected by the project, obtaining from them all necessary information on land, structures, crops, and other relevant assets. People found to have been adversely affected by the project may then file claims. Claims that are rejected by BRAC are reviewed by the GRCs, which authorize payment of claims they deem valid.⁷ (Attachment III includes a flowchart of these procedures for both people included in the original household census and for new claimants; Attachment IV includes sample registration cards.)

Despite Some Problems, Remedial Measures in Place Appear Adequate

30. In its original report the Panel expressed concerns about the implementation of remedial measures for compensating the *char* people affected by the project. As part of the current review of the status of the EFAP, the Panel sought to determine whether the applications of these measures now appear adequate. To do so it visited several *chars*, including Rulapara, Gabshara, and Konabar. Management consultants and representatives of the JMBPA, the World Bank Regional Office, and BRAC accompanied the Inspector on these visits. The field visit revealed that BRAC has done a good job of identifying people who may be entitled to compensation and of executing payment of compensation.

⁷ See footnote 2 supra

31. Participation of people affected by the project has been enhanced by the establishment of EFAP Committees. According to Bank staff, for community consultation and transparency, BRAC forms an EFAP Committee in each *mouza*, consisting of affected persons. The committee helps with demarcation of the eroded lands in the *mouza* maps, confirms the people entitled to compensation (EPs), helps resolve minor disputes over competing claims, remains associated with the compensation process, and acts as witness to handover of the Entitlement Slips to the claimants.

32. As in other projects reviewed by the Panel, the financing of compensation activities under the EFAP has been left to the borrower's and JMBA's own resources.

33. The Panel's review identified some problems associated with payment of compensation but concluded that the remedial measures in place should be adequate if certain adjustments are made. The people adversely affected by the project appears to have been informed about their entitlements and seemed to appreciate the grievance mechanism that is in place. Although the grievance process remains extremely complex because of the difficulty of determining the extent of flooding and erosion on a case by case basis, growing experience over time and adjustable rules for compensation should help resolve grievances more effectively. As long as steps are taken to extend as needed the EFAP beyond the year 2000 deadline and existing boundaries, the remedial measures are likely to prove adequate. Continued meaningful

participation by the *char* people as well
as Bank supervision and constant

monitoring of the compensation process
will be necessary.

List of Attachments

Attachment I	Entitlement Matrix of the EFAP
Attachment II	Sample educational brochures
Attachment III	Sample registration cards
Attachment IV	Flowchart of grievance procedures