Responding to Disasters: Emergency Flood Damage Rehabilitation in Bangladesh

By Marie Christine G. Montoya

- In terms of geographic extent and economic damage, the floods of mid-2004 were the worst experienced by Bangladesh.

- The quick response of the Asian Development Bank to the Government of Bangladesh’s request for assistance led to a $15 million grant and $180 million loan for damage rehabilitation and the establishment of a decentralized Flood Monitoring Unit in Dhaka.

- ADB’s assistance strengthened the partnership between Bangladesh and its development partners and simplified several administrative processes to facilitate speedy decision making and action.

Background

From late June to early July 2004, Bangladesh suffered one of the most devastating floods in its history. Considered the country’s worst-ever in terms of geographic extent and economic damage, the floods affected 39 districts, including Dhaka and other central districts.

Economic disruption and serious damages to infrastructure and other assets inflicted heavy losses on agricultural and industrial output and slowed down the growth in services. The combined losses to assets and output climbed to at least $2.3 billion. Almost 36 million people were affected and the death toll reached nearly 800. The flooding also set back progress in poverty reduction through losses to crops, livestock, property and housing, and reduced income opportunities.

Given the urgency of the situation, the Government of Bangladesh requested assistance from its active development partners. The ADB took quick action. By mid-July, its Bangladesh Resident Mission had established a Flood Monitoring Unit to keep close watch over the flood situation and enhance ADB’s readiness to react to any urgent disaster rehabilitation needs. Two months later, ADB approved a $15 million grant for emergency flood damage rehabilitation assistance, and started to process the Emergency Flood Damage Rehabilitation Project for Bangladesh. The project was approved on 20 January 2005.

Approach

The main objective of the $180 million project was to minimize the devastating impact of the floods and enable the early restoration of economic and social activity in the affected areas. The project was developed in close cooperation with the World Bank, bilateral aid agencies, and governments of the Netherlands and Sweden.

The project followed a sector approach to facilitate selection of the highest priority subprojects. It comprised five components. The rural infrastructure component restored rural infrastructures, including roads, bridges, and culverts. The roads component rehabilitated national, regional, and district roads, bridges, and culverts in five of the country’s seven road zones. The railways component renovated rail infrastructure and facilities on the core rail network, including embankments, tracks, bridges, essential buildings, station roads, and signaling and telecommunications facilities. It also included the provision of emergency equipment and materials to speed up repair work in future emergencies. The water resources component constructed flood control, drainage, and irrigation facilities; repaired embankment breaches; and restored water control structures, protective works, and canals in 39 districts. The municipal infrastructure component rebuilt roads, drains, bridges and culverts, and footpaths and drains in the slums of about 55 municipalities.

ADB, in coordination with the government, simplified the system for awarding civil works contracts. ADB authorized advance action for procuring equipment and materials, recruiting consultants and consulting firms to immediately start flood damage rehabilitation. Likewise, it allowed retroactive financing to save time.

Technical assistance grants were approved with the project. Support for Financial Management and Monitoring helped the government monitor the project, and an Early Warning Systems Study assisted the government to assess the effectiveness of its flood forecasting system and draw up a strategy to enhance its usefulness and early-warning capability. A grant amounting to $250,000 by the Government of the Netherlands financed the Early Warning Systems Study.

Results

The project was completed in 25 months, thanks to the satisfactory performance of the borrower and executing agencies, consultants, contractors, development partners, and ADB. Loan savings were generated because of the significantly lower bid prices submitted by contractors, and the devaluation of the taka relative to the US dollar. By project completion, the following major outputs under each component had been delivered.
Rural Infrastructure

About 2,000 kilometers of upazila and union roads and at least 11,000 bridges and culverts rehabilitated. Tree plantations covering about 32 square kilometers and 9 shelters were replaced, and at least 45 kilometers of flood protection works were rehabilitated.

Roads

About 3,000 kilometers of roads were rehabilitated, and about 2,000 meters of bridges and culverts were repaired.

Railways

Implemented were (i) at least 90,000 meters of embankment re-profiling; (ii) 39,000 meters of ballast wall restoration; (iii) 87,000 square meters of embankment protection; (iv) 19,000 meters of embankment protection wall restoration; (v) and 300 cubic meters of embankment natural ground replacement. About 28,000 meters of gauge steel sleepers and 224,000 elastic rail clips were procured for the railway’s east zone packaged under two separate contracts.

Water Resources

A total of 1,029 kilometers embankment works, 29 kilometers irrigation and drainage channel works, and 459 water structures were delivered.

Municipal Infrastructure

Municipal roads covering at least 1,000 kilometers, 426 meters of bridges or culverts, and about 62 meters of drains in slums located in 55 municipalities were rehabilitated. Since the repair work on footpaths in slums and low-income areas were undertaken by the municipalities or various nongovernment organizations, this was dropped from the project’s original scope of works.

Overall, at completion, the project was considered highly successful in terms of relevance, effectiveness, efficiency, and sustainability. ADB learned that in responding to a disaster emergency, there were needs for constant monitoring of executing agencies and regular interaction with the government; capacity building for executing agencies to improve contract administration, knowledge of ADB’s procurement and disbursement procedures to avoid civil works delay, simplified approval procedure to quickly implement projects, and delegation of authority to an ADB resident mission for close monitoring and speedy decision making.

Conclusion

Flooding is not an unusual occurrence in Bangladesh, and the country’s people, infrastructure, and economy have been ravaged by floods numerous times. To promote resilience, partners need to act promptly and with flexibility. ADB’s leverage of its resident mission for project processing and administration, and willingness to authorize advance procurement action, simplified approval procedure, early recruitment of consultants, and retroactive financing on a large scale are worth showcasing.

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