

## Executive summary

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### Background

This study is part of a five-country review of lessons learned from recovery after major natural disasters. The other four country studies – on Honduras, India, Mozambique and Turkey – have been completed, and a *Synthesis Report* will be issued that summarizes the findings of the review. The lesson learning review as a whole has analyzed the strengths and weaknesses of recovery assistance from governments, donors, and civil society following major natural disasters, with a focus on identifying replicable good practice.

Bangladesh was selected as a case study as it is representative of a predominantly agricultural developing country with high levels of rural poverty; in addition, it is extremely susceptible to natural hazards, especially floods. A particular focus of this study has been on the recovery of poorer households, as these households are usually most in need of external support following major natural disasters.

### The 2004 floods and tsunami disaster

This report focuses on lessons from the recovery period following the 1998 floods. Bangladesh is a country that is highly vulnerable to a number of hazards including cyclones, droughts, flooding and earthquakes. During the 2004 monsoon season, Bangladesh experienced severe flooding across 33 districts that affected approximately 36 million people and killed nearly 800 people. Over 2 million acres of agricultural land was damaged, and approximately 4 million houses were either partially damaged or completely destroyed. Total damage caused by the floods was estimated at US\$2.28 billion, with the most severe losses concentrated in the housing, transport, and agricultural sectors. Additional flooding occurred again in September, paralyzing parts of Dhaka and inundating southwestern districts that were not affected by the first monsoon emergency. In addition the December 26, 2004 tsunami in the Indian Ocean also affected Bangladesh's coastline, causing relatively minimal damage and several deaths. It is hoped that the findings of this study can contribute to the recovery efforts of the most recent events, and help to inform efforts for more effective risk reduction in the country.

As indicated in this study, the impacts of these events suggest that several factors continue to contribute to the country's vulnerability to disasters, including rapid urbanization, population growth, inadequate maintenance of infrastructure systems, and poor environmental management.

### The 1998 floods

The 1998 floods appeared to be qualitatively different from major floods in the previous 20 years, because of the length of the flood period, which was about 10 weeks. Whether the extended length of the flooding is a one-off phenomenon is impossible to predict. About 30 million people and 68 percent of the country were affected, as opposed to about 30 percent in a normal flood year. The floods affected different sectors in different ways. Although a large portion of the *aman* (winter) crop was destroyed, the agricultural sector evidenced increased yields due to a good *boro* (spring) crop; and the construction industry grew by eight percent in 1998/99. Manufacturing and private investment showed a significant downturn, including in the dominant garment industry, although it is difficult to disentangle the effects of the floods from more general patterns of disinvestment, partly caused by political uncertainty in Bangladesh.

### Policy

Current thinking on vulnerability, disasters and recovery is being integrated, at a slow pace, into national and donor planning documents. A significant shift is from a focus on *flood control* to *flood proofing*, that is, to a less interventionist stance that takes into account livelihood strategies of the affected population. Floods are also being viewed as part of the development continuum, rather than as discrete geographical events.

The main reasons for this change are pressure from civil society in Bangladesh, and the shift in focus in the disaster paradigm itself.

The Government of Bangladesh's policy after 1994 facilitating private sector food imports appears to have significantly improved the response to the 1998 floods. After the 1998 floods, the government promoted private sector imports through removal of the 2.5 percent development surcharge on rice imports, and instructed customs officers to expedite clearance of rice imports. Between July 1998 and April 1999, private sector imports equaled 2.42 million metric tons (MTs) and government imports equaled 399,000 MTs, which met a substantial percentage of the shortfall caused by the floods. This was probably one of the main factors in keeping the price of rice stable from September 1998 to mid-April 1999, a key issue for poorer households.

## Systems

Bangladesh has over the last decade developed machinery for disaster response, including a *Disaster Management Act* and a *National Disaster Management Plan*. However, limited evidence of government coordination was found in the recovery phase, while NGO coordination was assessed as positive overall. Despite a lack of long-term forecasting capacity, almost all reports and studies note that Bangladesh was better prepared in 1998 than in 1988, the last major flood.

## Resources

Assessing levels of disbursement to recovery activities is complicated by the overlapping budget headings for relief, recovery, and development interventions of the main recovery actors, and reallocation of funds to recovery by these actors from ongoing projects. While significant resources were originally allocated by donors, it appears that, overall, new disbursements were limited. This is in contrast to concurrent disasters (e.g. Hurricane Mitch in Honduras) where substantial amounts of new funds were disbursed. Sectorally, the majority of recovery funds were allocated to infrastructure projects and agricultural credit. The World Bank and Asian Development Bank (ADB) both combined aspects of a number of ongoing projects to create a new flood recovery project; while this may make sense from an administrative and policy perspective, it may also make evaluation of the recovery phase difficult. Despite the widespread loss of housing, major donors did not make housing reconstruction a priority, and it is not clear why this is the case.

## Livelihoods

Understanding of, and attempts to build on livelihoods after the floods, was patchy. There is almost no discussion of livelihoods in the major infrastructure projects, i.e., in the case of the majority of funds being disbursed. NGO and academic reports cover livelihoods in more detail. The following were the main strategies used by poorer households:

- Cutting back in non-food expenditure, which lasted for at least a year after the peak of the floods.
- Distress sales of assets, including small livestock. It was extremely difficult for poorer households to recover these assets.
- Borrowing to purchase food and to fund other expenses. This was of particular importance. Due to insufficient availability of credit, poorer households were forced to take exploitive loans from moneylenders or wealthier neighbors.

## Impact

There is a general consensus that the response after the 1998 floods was more effective than in 1988. Attention paid to disaster preparedness in the decade prior to the 1998 floods relative to the 1988 floods.

The main reasons for this appear to be: the growth of civil society since 1991, and in particular the role of NGOs as both service providers and advocates for a more democratic society; economic growth and reduction in poverty levels; changes in crop patterns resulting in an increase in the relative size of the *boro* harvest, which has largely reduced the seasonality of production and prices, and the susceptibility of total production to adverse weather; and investment in preparedness, which produced tangible benefits in reduced loss of lives, livestock, and property.

There is very limited discussion of any wider potential impacts of rehabilitation of infrastructure, for example the likely socio-economic, gender equality or environmental impacts. Clearly, greater attention is needed in the planning of infrastructure in the recovery phase to ensure that communities are consulted and their priorities are being met.

The focus of major donors on infrastructure may be one of the reasons why the understanding of, and attempts to build on, livelihoods after the floods was patchy. There is almost no discussion of livelihoods in the major infrastructure projects, a situation which the GOB and donors need to address. While several large infrastructure and transfer of payment projects aimed at promoting economic growth, they still needed to establish how economic growth would support livelihoods for direct poverty reduction. The debates on structural as opposed to non-structural interventions in the Flood Action Plan through the 1990s are also relevant to the introduction of infrastructure after major floods. In addition, corruption issues, which were insufficiently dealt with by reports, are systemic problems in the country that have often surrounded infrastructure projects in Bangladesh (DFID 2002).

NGO assessments, including independent assessments, are generally positive about the impact of recovery programs. While NGO programs in Bangladesh are extensive, their post-disaster assistance was considerably smaller than that provided by major donors. However, one of the least successful recovery related interventions over the last decade after natural disasters in Bangladesh appears to be housing. Problems encountered include: poor targeting; lack of standards; limited community participation, and inappropriate design.

Main lessons learned from this study are:

### **1. Policy and planning**

- Government policy that manages the food supply in a flexible manner, including allowing private sector food imports, can help to stabilize the price of staple foods after major natural disasters. However, public intervention in food management and operation is essential.
- Households living in marginal environments worst impacted by floods are often permanently in the relief phase of development. Planning a *relief to development* continuum may need to be rethought for interventions related to these households.
- A second needs assessment could be carried out at the start of the recovery phase, in order to prioritize communities and individuals in need. This could also be used to understand ways of building on existing livelihoods.
- There was insufficient credit available in the recovery period, even despite the very widespread network of Bangladeshi micro-finance institutions. In terms of supporting livelihoods, this should be the first priority of external agents.
- NGOs with an ongoing development program are most likely to be effective in the recovery phase at targeting poorer households and supporting their livelihoods.

## ***2. Supporting livelihoods***

Based on a review of post-1998 flood and other documents over the last 10 years, the areas that could be covered in future interventions to support livelihoods include:

- Access to reliable sources of credit at low interest rates;
- Provision of seeds, particularly vegetable seeds and tree seedlings which will be of use to landless households able to grow vegetables on their homestead land;
- Replenishing the asset base of the poor, in particular provision of small livestock such as chickens, ducks and goats;
- Cash and food for work programs which involve rehabilitation of local infrastructure used by or of use to the poor;
- Reconstruction of education and health facilities with local materials and labor;
- Support in reconstructing housing that is adaptable to flooding, such as movable housing or housing made from sturdier materials, using local materials and labor; and
- Provision of information as to recovery resources available from the GOB and NGOs.

## ***3. Understanding the impact of floods and recovery interventions***

Recovery interventions are not coming under adequate external scrutiny, partly because they are still considered to be taking place in a near-emergency situation. Greater attention needs to be paid to the effect of recovery efforts on different groups among the poor, including female-headed households. Some of the areas that need greater attention are: the effects of food imports and agricultural credit on agricultural labor wage rates; the impact of infrastructure interventions on livelihoods; and the impact on gender inequality.