

ABSTRACT

Bangladesh is vulnerable to flood due to its geophysical location. Floods continue to be major hazard in Bangladesh. Floods in 1987, 1988, 1998, 2004 and 2007 caused extensive damages in the rural and urban areas and set back in the country's efforts to poverty reduction. The impacts of floods are expected to worsen as the vulnerability of Bangladesh to natural disasters has been increasing due to several factors including high poverty, environmental degradation, high population growth, urban growth, weak governance and institutional factors, and climate change and variability. The experts are strongly recommending that an effective adaptation measure, community based early warning dissemination system can maintain the declining situation within tolerable limit.

As a national source of flood warning message dissemination, Flood Forecasting and Warning Center (FFWC) of Bangladesh Water development Board (BWDB) is disseminating flood warning since independence. Existing flood warning message is not fully gratifying the need of flood vulnerable community and disaster managers. The contents of warning are not well understood by the community and are not reaching to them at right time. Considering this reality, the study topic "Design and Dissemination of Community Oriented Flood Warning Message" was preferred by the researcher.

Ideally a flood warning message is a notice of impending flood threat issued to the public by the competent authority so that people and organizations can undertake necessary precautions or protective behavior or help towards their achievement. Flood warning message tells the public and particularly people at risk:

- When the flood is likely to occur
- What is the nature of the flood
- Where the likely impact of flood will occur in a given locality, and
- How people should respond to protect themselves from flood hazard

And it should be issued by credible and official source. Dissemination of flood warning message to the vulnerable community at right time is prime important but unfortunately, dissemination remains the weakest element in the flood warning system. The principle objective of the study was to check effectiveness of the flood warning message and dissemination procedure and based on field information, design community oriented flood warning message and dissemination method.

The study was carried out in a flood prone Upazila Daulatpur of Manikganj district. The summary of study findings is that there are considerable weaknesses in framing warning messages and dissemination procedure which reduces the effectiveness in enabling people and institutions to take protective action to reduce the negative impact of floods.

Flood warning message should be made in "Bangla", area specific; at least Upazila specific and action oriented. Warning must include the information on the expected rise or fall of the existing water level with probable peak flood level with data and should be communicated in feet and inches in addition to m/cm. Each of the flood-prone Upazila should have reference

pillars/flood markers, with a scale on it, in the open water body preferably nearest to the Upazila complex. Deterministic forecast lead-time should be increased to 5 days from existing 3 days. Ten days lead-time for qualitative forecast is most desirable.

During flood time a daily radio and Television broadcast of 5 minutes (preferably just before prime news) on flood situation is suggested. The program likely to cover 1) Flood forecasts and warning messages from FFWC; and; 2) Dos and Don'ts in pre flood, during flood and in post flood situations. Imam of Mosque, primary school teacher, disciplined organization like Ansar, Police, village police and community police should be integrated with the dissemination process at community level. Dissemination of flood warning through cell phone voice service should be introduced by integrating the cell phone companies. A minimum funding supports should be provided to the UDMC as the operational costs.

The study recommends that the existing co-operation between BWDB and DMB be strengthened in order to implement an operational flood warning dissemination system at community level. It is expected that the Comprehensive Disaster Management Project (CDMP) phase-2 under DMB will provide emphasis on this issue as it did in its phase-1 actions.