



BANGLADESH: FLOOD MANAGEMENT

- 1. Location of the study:** Bangladesh
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- 3. Brief description of flood management practice**

Bangladesh, due to its unique geographical location and topography, is one of the most flood-prone countries in the world. It is affected by flash floods, rain-fed and river floods, and floods due to cyclonic storm surges. Approximately 20-25% of Bangladesh's territory is inundated during the monsoon season. Such flooding provides fertile agricultural land and the floodplains in Bangladesh are densely populated and intensely utilized. On the other hand, during the last half-century at least eight extreme flood events occurred affecting about 50-70% of Bangladesh's territory with far-reaching negative impacts on human life and the national economy.

Flood management strategies adopted in the country have continuously evolved over the last 50 years, with mixed experiences. Initially, the emphasis was on large-scale structural measures with the dual purpose of flood mitigation and irrigation. Non-structural measures such as flood forecasting and warning were later incorporated as it was felt that structural measures alone could not mitigate flood problems. The Flood Forecasting and Warning System (FFWS), established in the 1970s, now covers all the flood prone areas of the country and provides real time flood information with early warning for lead-time of 24 and 48 hours.

In addition, more emphasis is now put on other non-structural means for flood mitigation, in particular by adopting a policy of involving communities in flood management, the stopping of encroachments on the flood plains through legislation controlling the developments in the flood plains and wet-lands, and a new concept of controlled flooding as per desire of the stakeholders instead of protecting some areas to make them completely flood free.

A National Water Management Plan was prepared in 2001, cross-cutting different sectors of national economy in the light of Integrated Water Resources Management, to address conflicting water needs and to ensure equitable water use and balanced economic growth, into the next 25 years. The Plan includes also the management of water induced disasters e.g. flood, erosion and drought.

About 53 central government organizations and 13 ministries are identified to be involved in water and different stages of flood management; and a National Water Council was set-up to coordinate the various activities.

The Government has made flood management as a participatory activity. Up-dated Guide Lines For Participatory Water Management have been prepared to involve all kinds of stakeholders both at national and local levels.

4. Key issues

- Continuous evolution of flood and water management policy
- Adverse impact of structural flood management measures on agriculture – particularly regarding impact on crop diversification - and fisheries
- Increased emphasis on non-structural measures and the involvement of communities in flood management activities

¹ Bangladesh Water Development Board (BWDB)



- Preparation of a National Water Management Plan to address the long-term need, management and utilization of water resources across all sectors and the management of water-related disasters such as extreme flooding and drought.

5. Relevance to the concept of IFM

The study covers the following aspects of IFM to varying extents:

Water cycle as a whole

- Aspect 4 - Managing the whole water cycle (flood/drought management plans)
- Aspect 6 - Effective use of floodwater by maximizing positive aspects of floods

Integration of land and water management

- Aspect 2 - Land and water management
- Aspect 3 - Laws and regulations for flood and water management
- Integrated river basin management approach to flood management

Best mix of strategies

- Aspect 10 - Best mix of structural and non-structural measures

Participatory approach

- Aspect 5 - Stakeholder involvement in decision-making
- Aspect 7 - Community-based approach
- Aspect 9 - Effective linkage between existing institutions

Integrated hazards impact mitigation

- Early warnings and forecasts

6. Comments

- (i) Potential strong points of the case study
 - Guidelines for participatory water management
 - National Water Policy and National Water Code
 - Pilot projects on controlled flooding
 - Flood forecasting and warning
- (ii) Potential for practices mentioned to be transferred/applied to other regions with geophysical and socio-economic characteristics)

The concepts and plans described in the case study could be applied to other regions.