

Disaster Management in Bangladesh

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Introduction:

- ▶ Bangladesh is a disaster-prone country of an area of about 1,47,570 sq. km. with population nearing 140 million. The country is well within the tropics and is the largest delta in the world formed by the mighty rivers namely the Ganges, the Brahmaputra and the Meghna. Bangladesh has special geographical feature. It has the Himalayan range to the north. The Bay of Bengal to the south with its funneling towards Meghna estuary and the vast stretch of Indian land to the west. The combined affects of the role played by this special geographical features have significant bearing on weather system of Bangladesh. The adverse impacts of all the natural hazards affecting socio-economic condition need to be reduced for sustainable development. Realization of this reality, the Government of Bangladesh has undertaken a lot of plans and programs for disaster reduction through disaster management.

Major Disasters in Bangladesh

- ▶ Major disasters that occur in Bangladesh are : Tropical cyclone, Tidal bore, Flood, Tornado, River bank erosion, Earthquake etc.

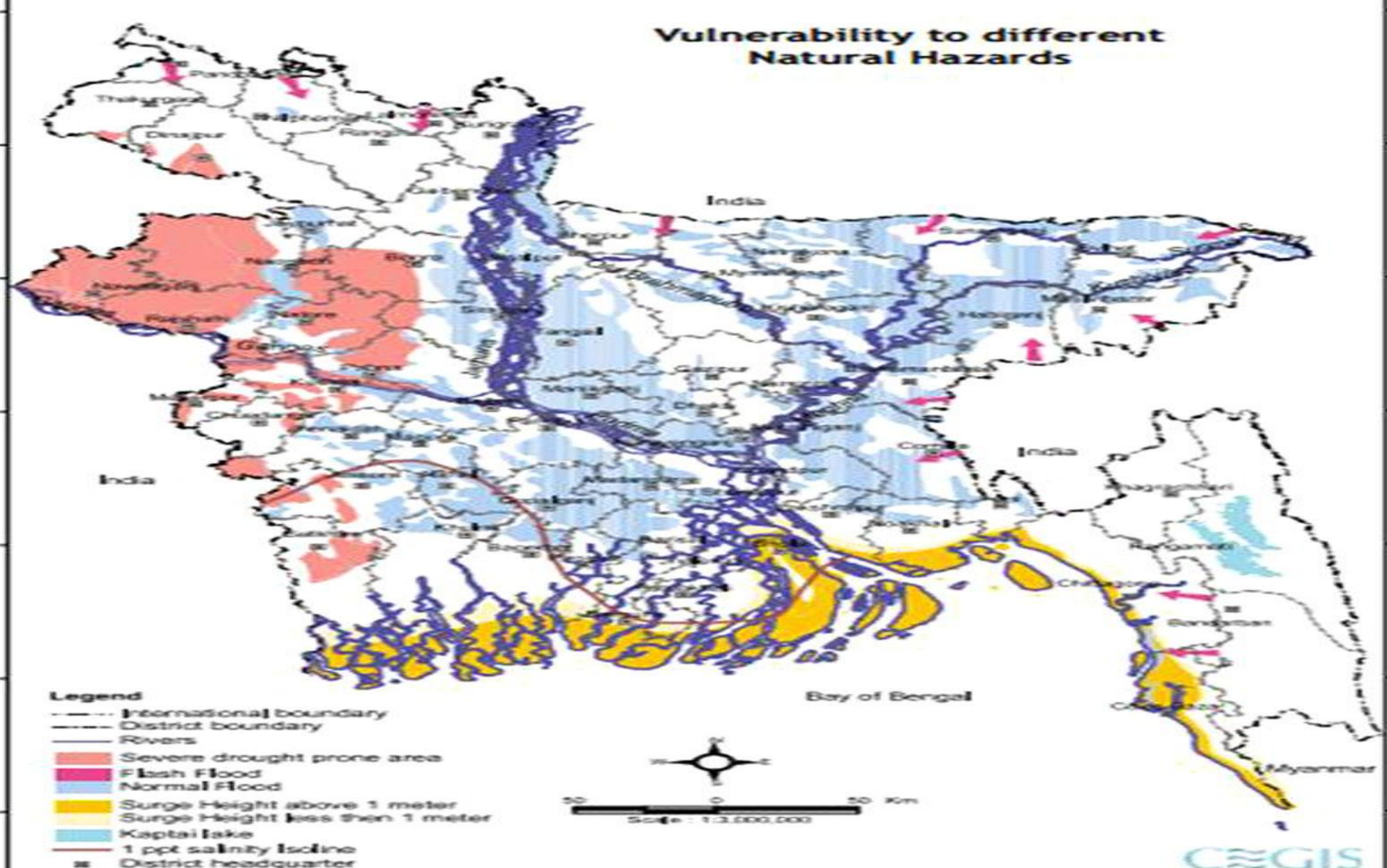
Natural Disaster in Bangladesh



Context

- ▶ Ranks globally among the most climate vulnerable
- ▶ Fifth rank in the world risk index 2012
- ▶ Bangladesh suffers from increasingly frequent and devastating natural calamities due to its-
 - ✓ Geographical location
 - ✓ Environmental situation
 - ✓ Climate change
 - ✓ Development stage.
- ▶ About 68% of the country is vulnerable to flood,
- ▶ 25 to 30% of the area is inundated during normal flood.

Vulnerability to different Natural Hazards



Bangladesh rivers receive runoff from a catchment of 1.72 million sq.km around 12 times its land area



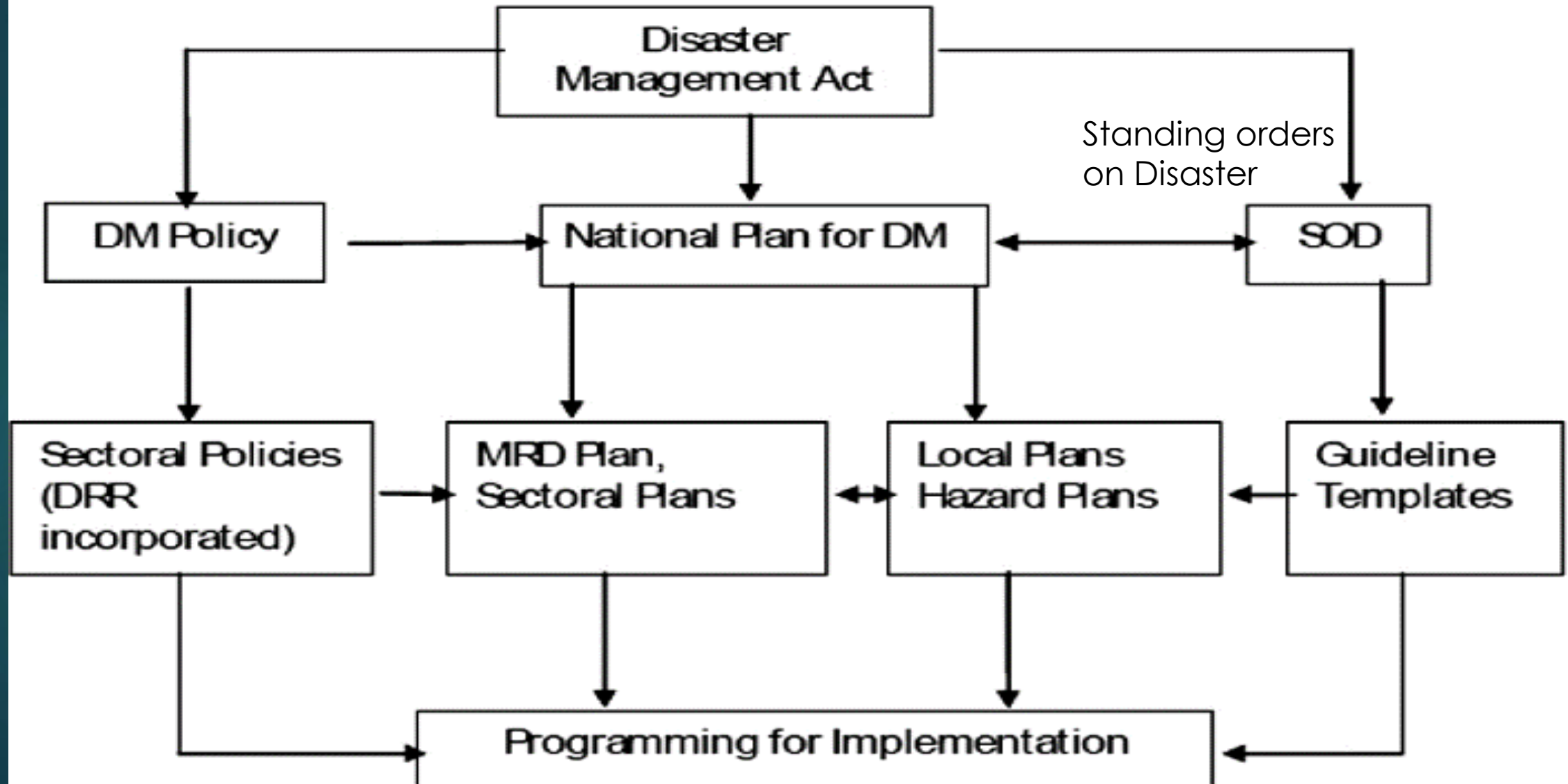
Climate Change Impact: Observed in Bangladesh

- ▶ Population Vulnerable to Impact of Climate Change
- ▶ Coastal Zone: Cyclone, Salinity
- ▶ Climate Change Impact: Observed in Bangladesh Population Vulnerable to Impact of Climate Change Coastal Zone: Cyclone, Salinity 35.8 million (28% of total population), among these
 - 72 offshore islands with an area of 4200 km² and over 3 million people are extremely vulnerable.
 - ❑ Haor Basin: Flash Flood 20 million population.
 - ❑ Bangladesh loses 10,000 ha land annually during last 30 years due to river bank erosion Displacement about 68,000 population/yr.

Earthquake.

Katmandu	Dhaka
Total area Katmandu valley 570 Sq Km	Total area Dhaka City 360 Sq Km
Total Population 2.5 million	Total Population 16 million
Building 2.2 million (approx)	Building 0.4 million (approx)
Cylinder Gas	Pipe Gas
Less soft soil area	Large soft soil area (65%)
More open spaces	Less open spaces
No Industrial area	Have number of Industrial area (Garments factory, chemical factory, boiler etc.)

Disaster Management Regulatory Framework



Institutional arrangement

- ▶ The GoB has taken a number of significant steps during the last few years for building up institutional arrangements from national to the union levels for effective and systematic disaster management facilitating mitigation to the sufferings of disaster victims in Bangladesh. To maintain proper coordination amongst the concerned Ministries, departments, line agencies, Local Government Body (LGD) and community people, and also to ensure their proper functioning to mitigate sufferings of the people, the GoB has formulated a set of mechanisms for Council and Committees from national down to the grass-root levels. For the mechanisms to be best operative, the Standing orders on Disaster (SOD) acts as a guidebook.
- ▶ The high powered National Disaster Management Council (NDMC) and In-Ministerial Disaster Management Co-ordination Committee (IMDMCC), developed as effective bodies to promote and coordinate risk-reduction, preparedness activities and mitigation measures, meet twice and four times a year respectively. While NDMC formulates and reviews disaster management policies and issues directives to all concerned, the IMDMCC plays key role in implementing the directives maintaining inter-Ministerial coordination, supervising the services of the Armed Forces as well as NGOs working in the field of disaster management in the country. Under the mechanism there exists a well-established organization named Directorate of Relief and Rehabilitation (DRR) within the administrative control of the MDMR wherein Emergency Operation Center (EOC) is located. The DRR acts during post-disaster emergency situation and operates relief activities for distribution to remote field levels under the supervision and guidance of the Ministry of Disaster Management & Relief (MDMR) / IMDMCC. The MDMR has a small dynamic professional unit known as Disaster Management Bureau (DMB) to perform specialist functions and ensure coordination with line departments/agencies and NGOs by convening meetings of Disaster Management Training and Public Awareness Building Task Force (DMTATF), Focal Point Operational Co-ordination Group on Disaster Management (FPOCG), NGO Co-ordination Committee on Disaster Management (NGOCC) and Committee for Speedy Dissemination of Disaster Related Warning Signals (CSDDWS) every three months regularly.

Products/Services

- ❖ Cell Broadcasting (CB) Early warning dissemination in flood prone and cyclone prone through Cell Broadcasting (CB) has been Successful.
- ❖ VR (Interactive Voice Response) Weather, flood forecasting and early warning for river port through IVR.
- ❖ SMS service to disseminate disaster early warning during and after disaster instruction will be circulated to officials of relevant disaster management.

Community-based Early Warning (Cyclone Preparedness Programme)

- ▶ A key factor to reducing cyclone-induced life loss from 300,000 in the 70's to today's negligible number
 - Established in 1970's at the request of UN General Assembly to the IFRC (The **International Federation** of Red Cross and Red Crescent Societies).
- ▶ It has been institutionalized as part of national disaster management system
 - community education and awareness agents,
 - Warning broadcasters,
 - Evacuation facilitators,
 - Rescue and relief frontlines.

Volunteer

- ▶ Database
- ▶ Scouts
- ▶ BDRS
- ▶ Ansar and Village Defense (Para Military)
- ▶ Bangladesh National Cadet Core
- ▶ CPP



Mainstreaming DRR (Disaster Risk Reduction)

▶ **Education:**

- DRR (Disaster Risk Reduction) issues incorporated in 31 text books of class III to XII
- Supplementary learning materials on DRR
- 18 million students reached through National Curricula Textbook Board

▶ **Agriculture:**

- Flood, Salinity tolerant crop varieties etc.,
- Continue improvement in food production

▶ **Health Sector:**

- Improve medical and hospital preparedness

Major Achievements

- ▶ Shifted the paradigm from response/relief oriented to comprehensive approach and risk reduction culture;
- ▶ Pro active community based early warning system;
- ▶ Disaster Management Committee system at all level;
- ▶ Wider social safety net programme;
- ▶ Vibrant Development partner/NGO;
- ▶ Academic Sector:
 - Graduate Courses/Institutions
 - Research

Major Achievements



- ▶ Improvement of disaster risk reduction measures, early warning system;
- ▶ Coastal afforestation, Cyclone and Flood shelters;
- ▶ Regular Exercise;
- ▶ Polders & Embankment in the coastal belt;
- ▶ River embankment for flood;
- ▶ Evacuation routes, killahs (High Land);
- ▶ Hyogo Framework for Action (HFA) 2005-2015;
- ▶ Sendai Framework

Four Priorities of Sendai

Understanding disaster risk

Investing in disaster risk reduction for resilience

Strengthening disaster risk governance to manage disaster risk

Enhancing disaster preparedness for effective response, and to «Build Back Better» in recovery, rehabilitation and reconstruction

Looking forward

- ✓ Develop new generation of early warning system in line with best practices and with use of advanced technology.
- ✓ Develop the use of simulations exercises to regularly stress test emergency response and coordination mechanisms and continue to raise staff awareness and skills.
- ✓ Optimize supply chain planning (from planning to sourcing and tracking of relief items) to improve emergency response.
- ✓ Enhanced focus on disaster preparedness for urban disasters (including earthquakes).
- ✓ Expand evaluations and lessons learning of disaster response and share lessons and experience in related regional and international forums as well as **Development Partners, WFP, UNDP etc.**
- ✓ Development Capacity for mega disasters.

Conclusions:

- ▶ Bangladesh is one of the disaster prone countries of the world, with extremely limited resources, its real development is not possible without the integration of disaster mitigation programmes. Our planning thrust is therefore diverted towards disaster management as a major consideration in regional development planning. Bangladesh is striving hard to establish an elaborate and experienced disaster management system from national down to community level to mitigate the effects of disasters. Being aware of the limitations and the vulnerability of the country to natural disaster, the GoB has been making continuous efforts to make Bangladesh a part of safer world in the 21st century and seek help of development partners.

THANK YOU

