

**With Love
from
Bangladesh**

Small Country



148 460 km²

8th most populous country



170,000,000



Disclaimer

- Tons of information are available on **Disaster Management in Bangladesh**
- This presentation might include information that are a bit outdated
- This presentation does not necessarily reflect the views of the Government of Bangladesh
- I stand available for any correction in the presentation

Major Natural Disaster in Bangladesh

1985 -2009

<i>Year</i>	<i>Disaster</i>	<i>Death toll</i>
1985	Cyclone	11069
1987	Flood	1657
1988	Flood	1708
1988	Cyclone	5704
1989	Drought	800
1991	Cyclone	138,882
1996	Tornado	545
1997	Cyclone	550
1998	Flood	918
1999	Flood	15
2000	Flood	36
2003	Flood	104
2004	Flood	747
2007	Cyclone (Sidr)	3363
2009	Cyclone (Aila)	190

Natural disasters in Bangladesh



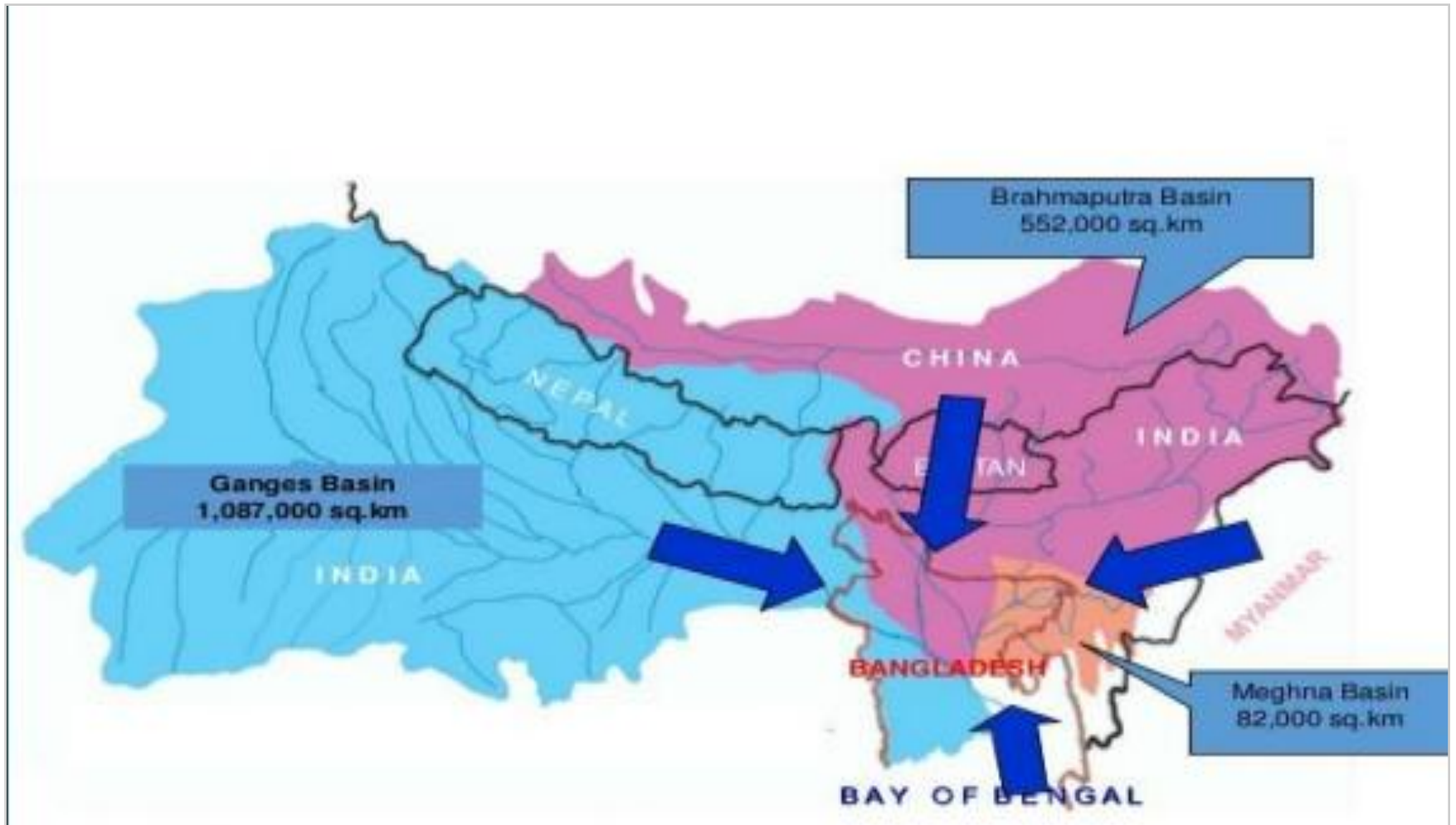
Natural disasters in Bangladesh

- Floods
- Cyclones
- Nor'westers and tornadoes
- Droughts
- Landslides
- River Bank Erosions
- Cold Wave
- Earthquake
- Manmade

Floods in Bangladesh

- Flood is a perennial disaster in Bangladesh
- It usually occurs during the monsoon season
- The geographical setting and meteorological characteristics has made the country vulnerable to different geo-hazards and hydro-meteoro-logical hazards/disasters
- Natural annual floods (**barsha**) that inundates up to 40% of the land area, which is very much necessary for rejuvenation of the arable land mass
- In the context of human exposure in flood hazard zones, nearly twenty million people are present in these zones

Water from everywhere



Types of Flood

- Flash floods in hilly areas
- Monsoon floods during monsoon season
- Normal bank floods from the major rivers
- Rain-fed floods

Major Floods in Bangladesh

<u>Year</u>	<u>Death</u>
1974	19,787
1984	553
1987	1,657
1988	1,708
1998	918
2004	747
2007	80



Major Cyclones hitting Bangladesh

<i>Date</i>	<i>Maximum wind speed (km/h)</i>	<i>Storm surge height (metres)</i>	<i>Death toll</i>
30 October 1960	210	4.6- 6.1	5149
28 May 1963	203	4.2-5.2	11520
11 May 1965	161	3.7-7.6	19,279
15 December 1965	217	2.4-3.6	873
01 October 1966	139	6.0-6.7	850
12 November 1970	224	6.0-10.0	300,000
25 May 1985	154	3.0-4.6	11,069
29 April 1991	225	6.0-7.6	138,882
19 May 1997	232	3.1-4.6	155
15 November 2007 (Sidr)	223	6.1-7.6	3363
25 May 2009, (Aila)	92	4.0-4.6	190

Nor'westers and tornadoes **in Bangladesh**

14 April 1969	Dhaka (Demra)
17 April 1973	Manikganj
11 April 1974	Bogra
10 April 1976	Faridpur
09 May 1976	Narayanganj
01 April 1	Faridpur
26 April 1989	Manikganj
14 May 1993	Southern
30 May 1996	Tangail
04 May 2003	Brahmanbaria

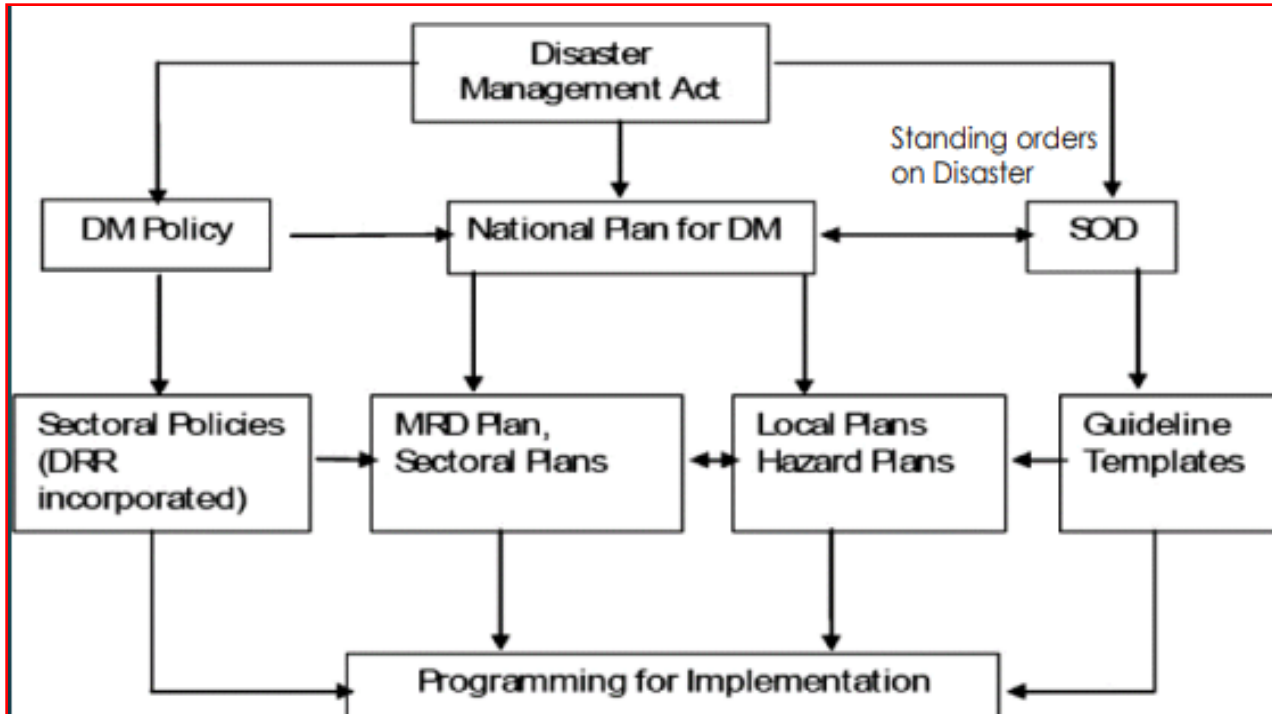
Disaster Management in Bangladesh

Disaster Management is the **Process of Forming Common Objectives and Common Values** in Order to **Encourage Stakeholders** to **Plan for and Deal with Potential and Actual Disasters** – with the **Ultimate Objective** of **Minimising the Effect On Life and Property**

Disaster Management in Bangladesh

The **Ministry of Disaster Management and Relief (MoDMR)** is top entity for Management of any disaster in Bangladesh

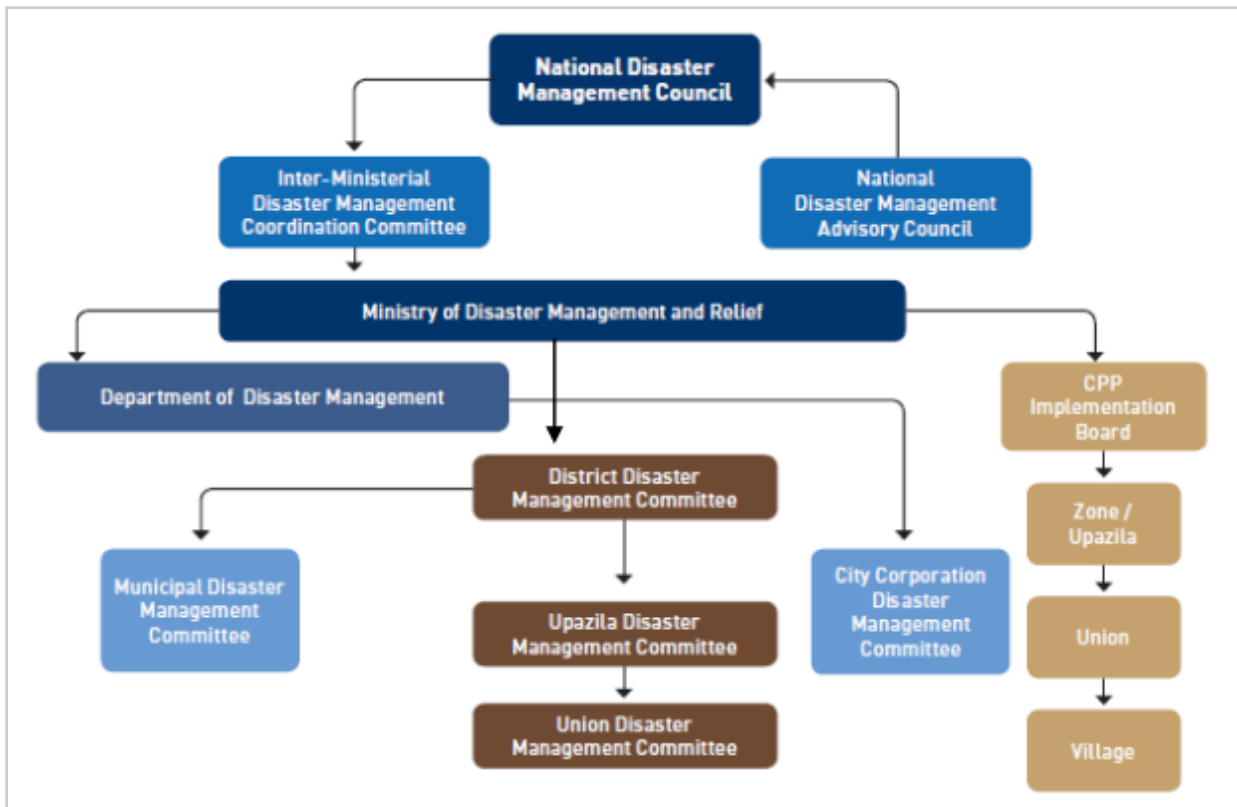
Disaster Management Regulatory Framework



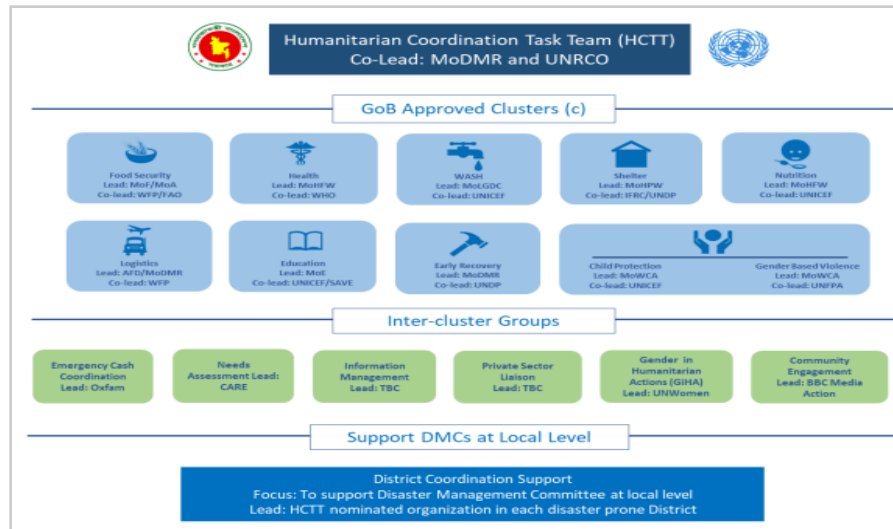
Coordination Mechanisms

- The National Disaster Management Council (**NDMC**)
- The Inter Ministerial Disaster Management Committee (**IMDMC**)
- The National Disaster Management Advisory Committee which is responsible for policy development and advice (**NDMAC**)
- The National Emergency Operation Centre (**NEOC**)

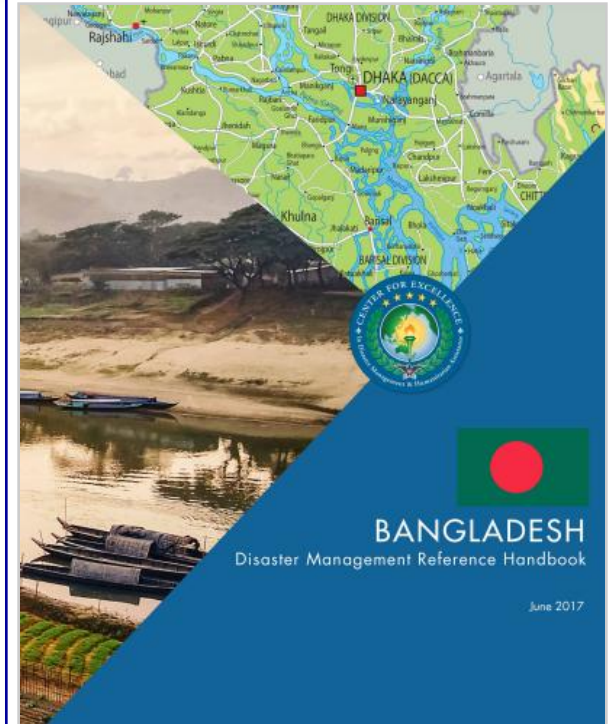
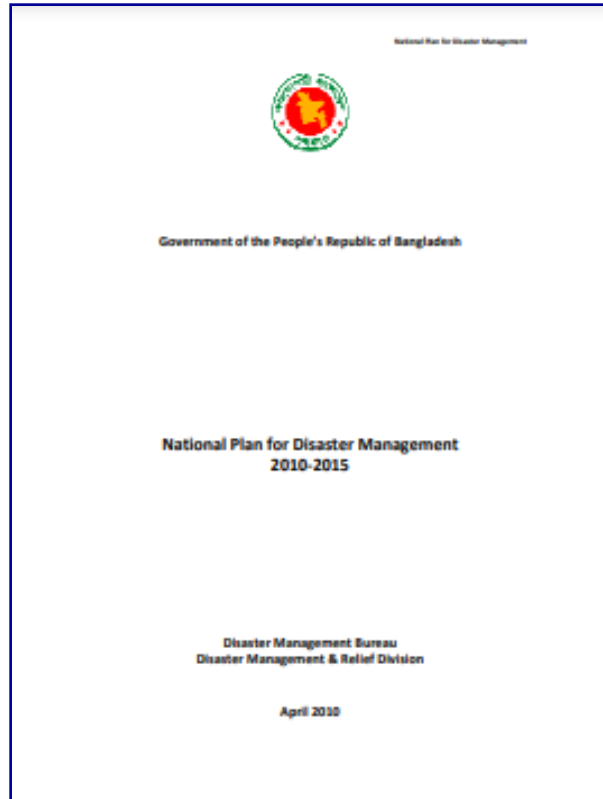
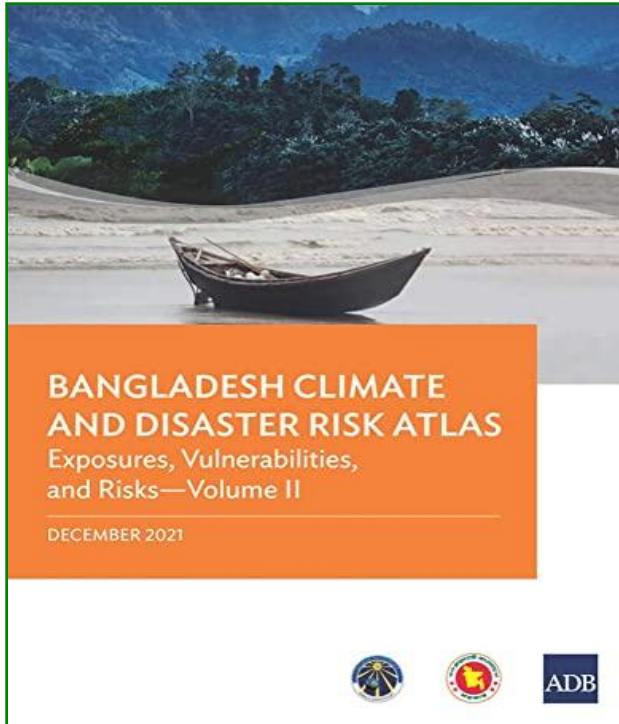
Natural Disaster Management System in Bangladesh



Execution of Disaster Management



Legal regulations



Legal regulations



Government of the People's Republic of Bangladesh

Standing Orders on Disaster 2019

Ministry of Disaster Management and Relief

Awareness program



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

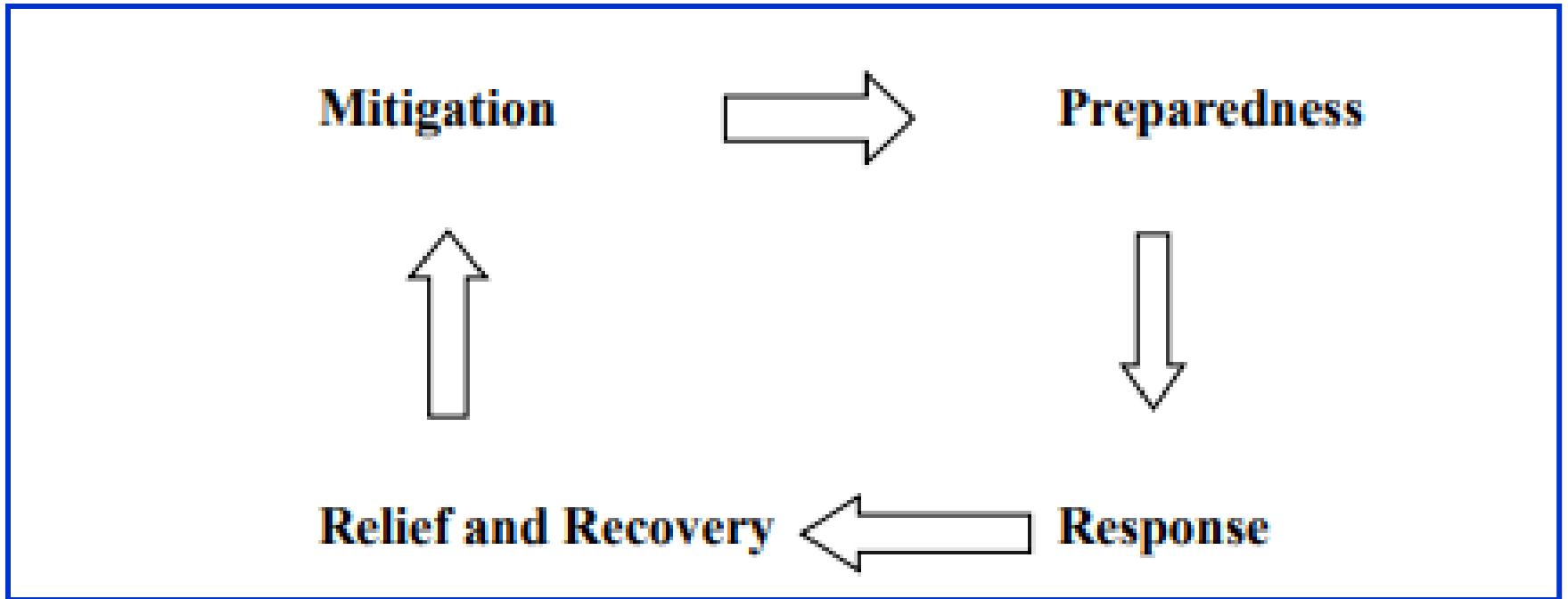
▶ **Health Sector:**

- Improve medical and hospital preparedness

What is Disaster Management in Bangladesh?

Disaster Management is the 'Process of Forming Common Objectives and Common Values' in order to 'Encourage Stakeholders' to plan for and deal with 'Potential and Actual Disasters' - with the ultimate objective of 'Minimising the Effect on Life and Property.'

Emergency Management Process



Structural Mitigation

The general structural mitigation process are:

- Resistant construction
- Building codes and regulatory measures
- Relocation
- Structural modification
- Construction of community shelters
- Construction of barrier, deflection, or retention systems
- Detection systems
- Physical modification
- Treatment systems
- Redundancy in life safety infrastructure



Non-structural Mitigation

- Regulatory measure Regulatory measures
- Community awareness and education programs
- Non-structural physical modifications
- Environmental control
- Behavioural modification

Preparedness

- **Preparedness** means minimizing the adverse effects of a hazard through precautionary actions and measures
- **Preparedness** normally refers to building an emergency response capability before disasters occur, to facilitate effective and efficient response

Response

Response is 'Actions and Capability to react to the sudden onset of a disaster under stress, uncertainty, various constraints, and limited resources'

Relief and Recovery

- **Relief** measures involve fulfilling basic needs of shelter, protection, water, food, and medical attention
- **Recovery** in the long term would essentially mean rehabilitation, restoration of economic activities, livelihoods, infrastructure services, basic living conditions, medical treatments, and reconstruction of damaged properties and shelters

With love from Bangladesh

- Nothing to be afraid of any natural disaster
- We shall overcome – overcome together

Thank you