



Country Report: People's Republic of Bangladesh

By

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Basic Information

Official Name	People's Republic of Bangladesh
National Flag	
National Emblem	
Official Symbol	
Capital and largest city	Dhaka, 23°42'N 90°21'E
Official languages	Bengali
Other languages	English, Indigenous minority languages
Demonym	Bangladeshi
Government	Unitary Parliamentary Republic
- President	Abdul Hamid
- Prime Minister	Sheikh Hasina
Legislature	Jatiyo Sangshad
Formation	
- Declaration of Independence	26 March 1971
- Recognition	16 December 1971
Currency	Taka
Time zone	BST (UTC+6)
Date format	dd-mm-yyyy
Drives on the	left
Calling code	+880



General Description:

Bangladesh is an independent and sovereign and country, officially it is known as People's Republic of Bangladesh. Historically, the borders of modern Bangladesh took shape during the Partition of Bengal and British India in 1947, when the region became the eastern wing of the newly formed state of Pakistan. Following years of political exclusion, ethnic and linguistic discrimination, and economic neglect by the politically dominant western wing, a surge of popular agitation, nationalism and civil disobedience led in 1971 to the Bangladesh Liberation War, resulting in the separation of the region from Pakistan and the formation of an independent Bangladesh.

Geographical Information:

Bangladesh is a developing country in South Asia, as it is officially known. It has a border on the west, north, and east with India, on the southeast with Myanmar, and the Bay of Bengal is to the south.



Geographical Coordinates:

20°34' to 26°38' north latitude and 88°01' to 92°42' east longitude

Area:

total: 147,570 km²

country comparison to the world: 94

land: 133,910 km²

water: 10,090 km²

Land boundaries:

total: 4,246 km

border countries: Myanmar 193 km, India 4,053 km

Maritime claims:

contiguous zone: 18 nmi (33.3 km; 20.7 mi)

continental shelf: up to the outer limits of the continental margin

exclusive economic zone: 200 nmi (370.4 km; 230.2 mi)

territorial sea: 12 nmi (22.2 km; 13.8 mi)

Coastline: 580 km with 273 km unbroken longest Sea beach in the world.

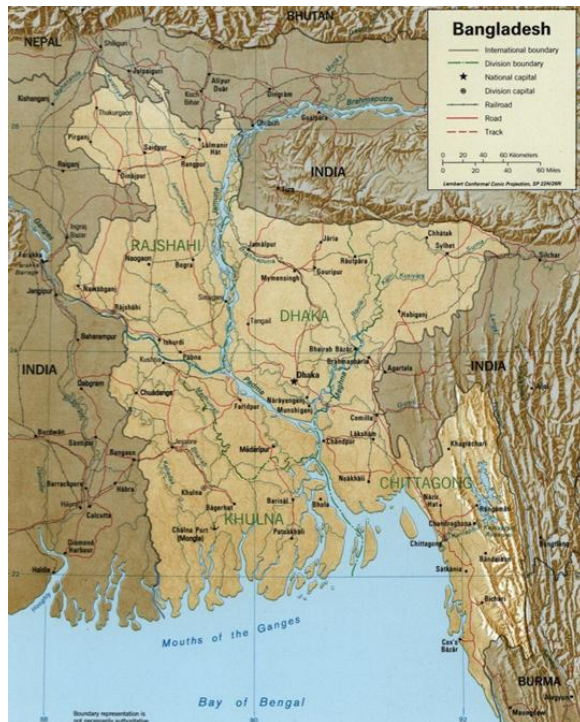
Elevation extremes:

lowest point: Indian Ocean 0 m

highest point: In the Mowdok range at 1052 m (at N 21°47'12" E 92°36'36")

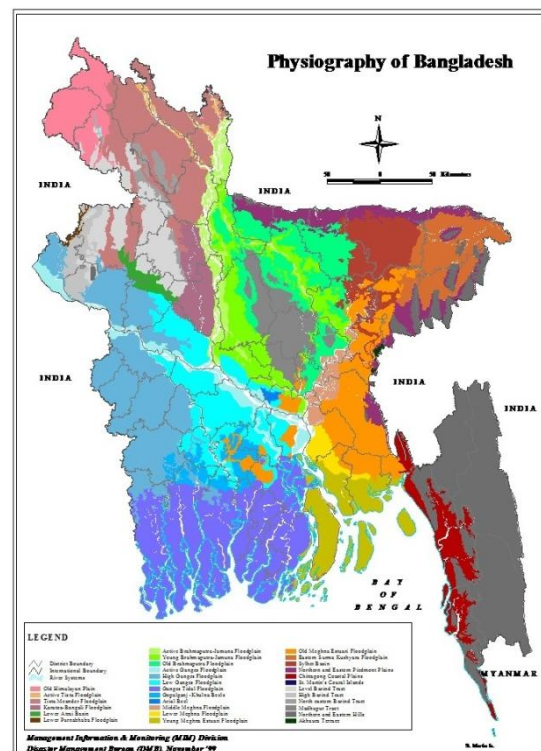


Bangladesh is a low-lying, riverine country with a largely marshy jungle coastline of 710 km (441 mi) on the northern littoral of the Bay of Bengal. Formed by a delta plain at the confluence of the Ganges (Padma), Brahmaputra (Jamuna), and Meghna Rivers and their distributaries and tributaries, Bangladesh's alluvial soil is highly fertile, but vulnerable to flood and drought. Hills rise above the plain only in the Chittagong Hill Tracts in the far southeast and the Sylhet division in the northeast. The whole country consists of mainly low and flat land, except for the hilly regions in the northeast and southeast. A network of rivers, with their tributaries and distributaries, crisscross the country. Physiographically, the country can be divided into hills, uplifted land blocks, and the majority alluvial plains with very low mean elevation above sea level.



In terms of geographical location, Bangladesh is in the context of the GBM river system. Geologically, Bangladesh is a part of the Bengal Basin, one of the largest geosynclinals in the world. The Basin is bordered on the north by the steep Tertiary Himalayas; on the northeast and east by the late Tertiary Shillong Plateau, the Tripura hills of lesser elevation, and the Naga-Lusai folded belt; and in the west by the moderately high, ancient Chotanagpur plateau. The southern fringe of the basin is not distinct, but geophysical evidence indicates it is open towards the Bay of Bengal for a considerable distance. The formation and growth of the Bengal Basin is directly related to the origin and morphology of the Indo-Gangetic trough, which itself is overlaid and filled by sediments thousands of meters thick. The broad

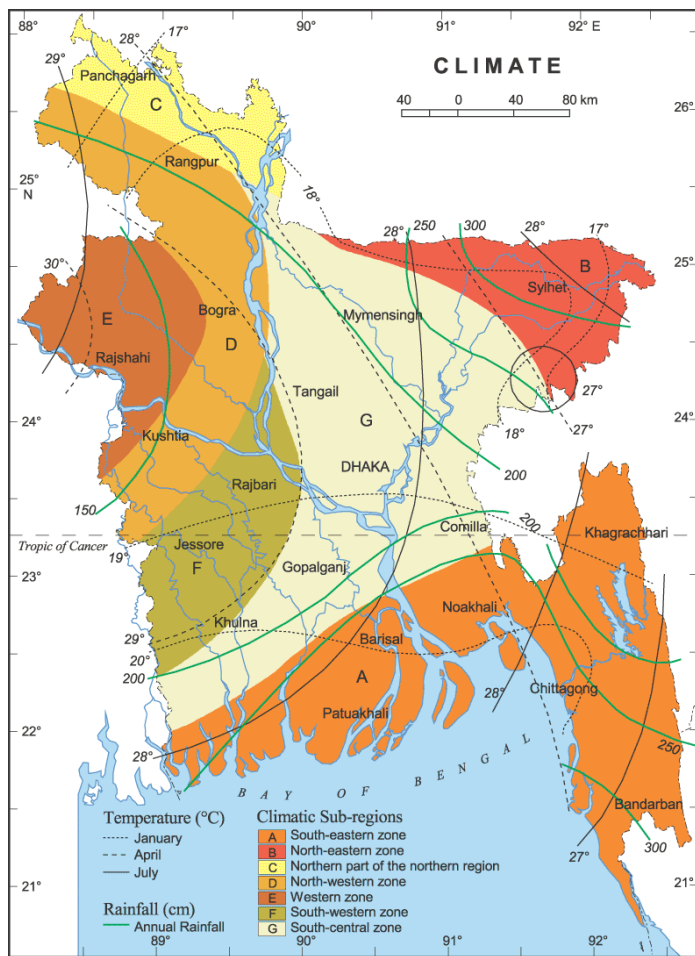
Physiography of Bangladesh is characterized by a diverse landscape. The northern part of the country is dominated by the Chittagong Hill Tracts, a region of rugged mountains and hills. To the east, the Sylhet division is known for its tea gardens and hilly terrain. The majority of the country, however, consists of vast alluvial plains, which are highly fertile and prone to flooding. These plains are crisscrossed by a dense network of rivers, including the Ganges, Brahmaputra, and Meghna, along with their numerous tributaries. The coastal region is characterized by a marshy jungle coastline and a network of smaller rivers and canals. The map shows various physiographic features such as the Chittagong Hill Tracts, Sylhet division, and the vast alluvial plains, along with major cities and rivers.



geological features of the Bengal Basin and its prominent tectonic elements are Indian platform, Bengal foredeep, Arakan Yoma folded system, and the Sub-Himalayan Foredeep. Other features are Rangpur Saddle, Dinajpur slope, Bogra slope, Hinge Zone, Barisal High, and Troughs of Sylhet, Faridpur and Hatiya, etc.

Climate:

Bangladesh has a tropical monsoon climate characterized by wide seasonal variations in rainfall, high temperatures, and high humidity. Regional climatic differences in this flat country are minor. Three seasons are generally recognized: a hot, muggy summer from



March to June; a hot, humid and rainy monsoon season from June to November; and a warm-hot, dry winter from December to February. In general, maximum summer temperatures range between 38 and 41 °C (100.4 and 105.8 °F). April is the hottest month in most parts of the country. January is the coolest month, when the average temperature for most of the country is 16–20 °C (61–68 °F) during the day and around 10 °C (50 °F) at night. Winds are mostly from the north and northwest in the winter, blowing gently at 1 to 3 kilometers per hour (0.6 to 1.9 mph) in northern and central areas and 3 to 6 kilometers per hour (1.9 to

3.7 mph) near the coast. From March to May, violent thunderstorms, called northwester by local English speakers, produce winds of up to 60 kilometers per hour (37.3 mph). During the intense storms of the early summer and late monsoon season, southerly winds of more than 160 kilometers per hour (99.4 mph) cause waves to crest as high as 6 meters (19.7 ft) in the Bay of Bengal, which brings disastrous flooding to coastal areas. The annual rainfall is about 1,600 mm (63.0 in), most parts of the country receive at least 2,300 mm (90.6 in) of rainfall per year. About 80% of Bangladesh's rain falls during the monsoon season.

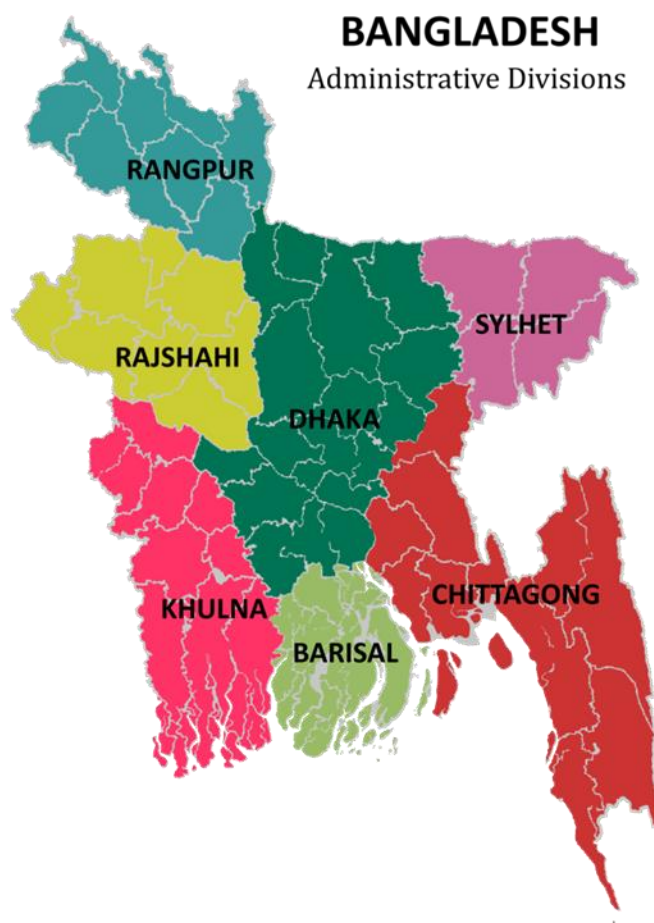


Administrative Divisions:

Bangladesh is divided into seven administrative divisions, named Barisal, Chittagong, Dhaka, Khulna. Divisions are subdivided into districts (zila).

There are 64 districts in Bangladesh, each further subdivided into upazilla (subdistricts) or thana. The area within each police station, except for those in metropolitan areas, is divided into several unions, with each union consisting of multiple villages. In the metropolitan areas, police stations are divided into wards, which are further divided into mahallas. There are no elected officials at the divisional or district levels, and the administration is composed only of government officials. Direct elections are held for each union (or ward), electing a chairperson and a number of members. In 1997, a parliamentary act was passed

to reserve three seats (out of 12) in every union for female candidates. There are 07 large city corporation in Bangladesh. Dhaka is the capital and largest city of Bangladesh.

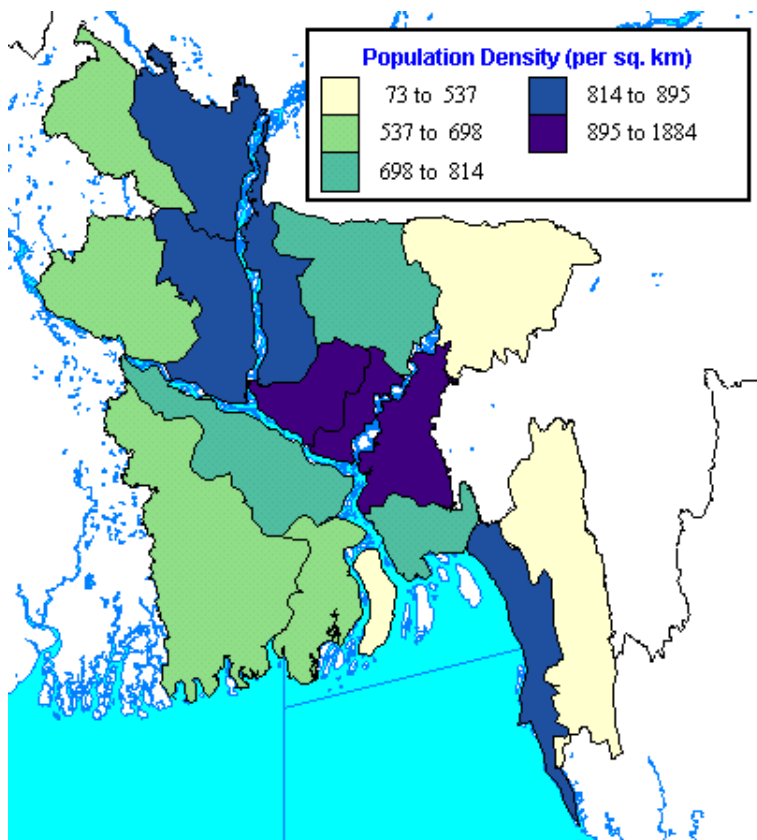


Population:

The population of Bangladesh is about 170 million and it is the 8th most populous nation in the world. It is also the most densely populated country in the world. Bangladesh's population growth rate is 1.56 whereas population growth rate was among the highest in the world in the 1960s and 1970s. Life expectancy at birth is estimated to be 70 years for both males and females in 2012. The overwhelming majority of Bangladeshis are Bengali, constituting 98% of the population. The remainder is mostly Biharis and indigenous tribal



groups. The tribal peoples are concentrated in the Chittagong in the southeast. There are 45 tribal groups located in this region, the largest being the Chakma. Islam is the largest religion of Bangladesh; Islam contributing 90.4% of population, Hinduism is contributing



8.2% of the population, Buddhism contributing 0.7% of the population, Christianity with 0.6% and others of 0.1% of the population. Bangladesh has a low literacy rate, estimated at 61.3% for males and 52.2% for females in 2010. The educational system in Bangladesh is three-tiered and highly subsidized. The government of Bangladesh operates many schools in the primary, secondary, and higher secondary levels. It also subsidizes parts of the

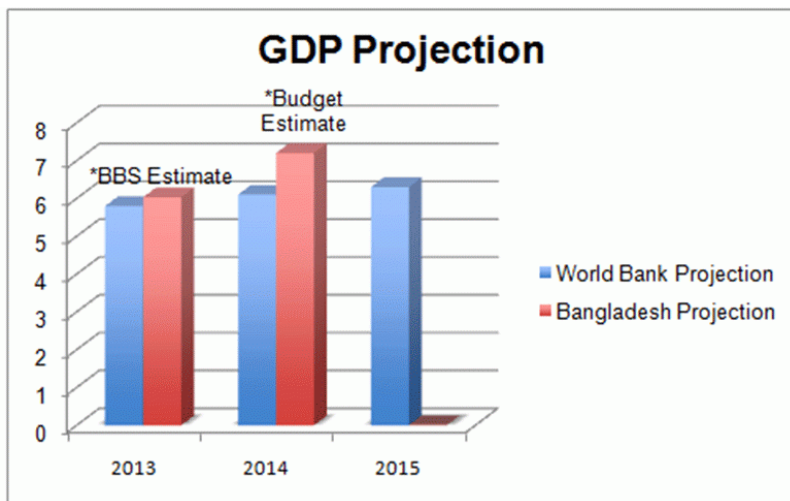
funding for many private schools. In the tertiary education sector, the government also funds more than 15 state universities through the University Grants Commission.

Economy:

Bangladesh is a developing nation. However, the poverty rate has declined by 25% since 1990, and per-capita GDP has doubled from 1975 levels. Dhaka and Chittagong, the country's two largest cities, as well as other urban centers, have been the driving force behind much of the recent growth. Goldman Sachs named it one of the "Next Eleven" Bangladesh gradually decreased its dependency on foreign grants and loans from 85% (In 1988) to 2% (In 2010) for its annual development budget. Its per capita income as of 2013 is US\$1,044 compared to the world average of \$8,985. The Central Bank of Bangladesh projected GDP growth around 6.5%. Bangladesh has seen a dramatic increase in foreign direct investment. In order to enhance economic growth, the government set up several export processing zones to attract foreign investment. These are managed by the Bangladesh Export Processing Zone Authority. More than three-quarters of Bangladesh's export earnings come from the garment industry in 2005. The industry began attracting



foreign investors in the 1980s because of cheap labour and low conversion cost. In 2011–12 fiscal years the industry exported US\$18 billion worth of products where in 2002 the exported amount was US\$5 billion. Bangladesh has been ranked as the 4th largest clothing exporter by the WTO (The World Trade Organization) whereas; according to *The Economist* Bangladesh is the world's third-largest clothes-export industry. The industry now



employs more than 3 million workers, 90% of whom are women.

Rice is the dominant crop (over 70 per cent of the total value of agricultural production). Other crops include wheat, jute, sugar cane, pulses, spices, tea, and various fruits and vegetables.

According to FAOSTAT, Bangladesh is one of world's largest producers of fisheries (5th), rice (4th), potato (11th), mango (9th), pineapple (16th), tropical Fruit (5th), onion (16th), banana (17th), jute (2nd), tea (11th).

Art and Culture:

Bangladesh is a melting pot of races. She, therefore, has a mixed culture. Her deep rooted heritage is amply reflected in her architecture, literature, dance, drama, music and painting.



Bangladeshi culture is influenced by three great religions-Hinduism, Buddhism and Islam in successive order, with Islam having the most pervading and lasting impact. Like a colorful montage, the cultural tradition of the country is a

happy blending of many variants, unique in diversity but in essence greatly symmetrical.





Bengali Traditional
Dance in the New
Year Festival



*Ahsan Manzil, a
Historical Architecture
By Muslim Nawab*



Bengali Traditional
Handicraft
NokhshiKatha

Natural Hazards in Bangladesh:

Natural Hazards Likely to Affect the Country:

Historical statistics would suggest that Bangladesh is one of the most disaster prone countries in the world with great negative consequences being associated with various natural and human induced hazards. The geophysical location, land characteristics, multiplicity of rivers and the monsoon climate render Bangladesh highly vulnerable to natural hazards. The coastal morphology of Bangladesh influences the impact of natural hazards on the area. Especially in the south eastern area, natural hazards increase the vulnerability of the coastal dwellers.

Disasters and Bangladesh

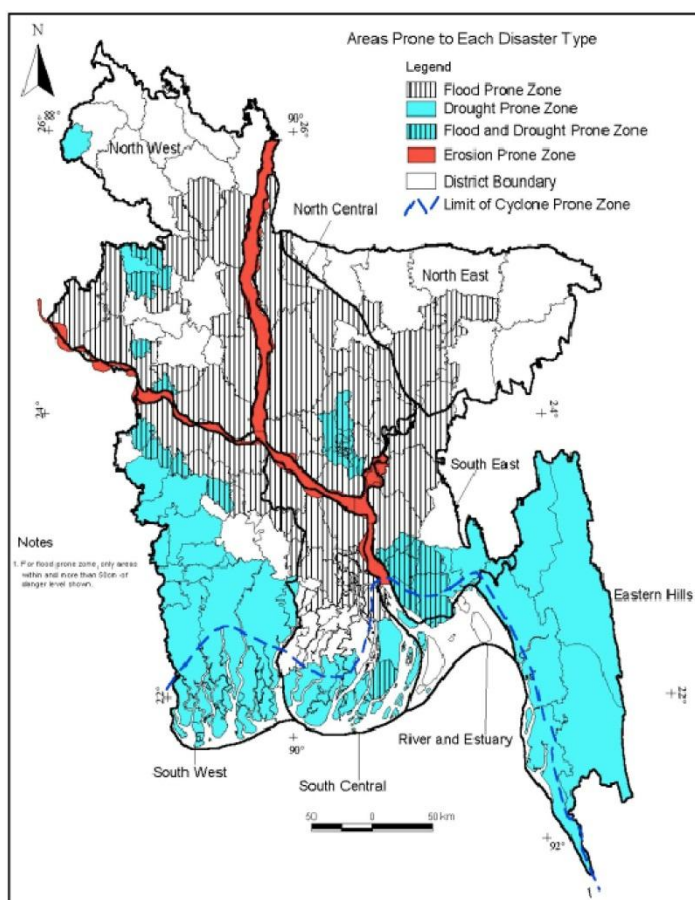
- Flood
- Tropical Cyclone
- Storm Surge
- Tornado
- River Bank Erosion
- Drought
- Earthquake

Key factors of vulnerability

- Geographical location
- Dominance of flood plains
- Low elevation from the sea
- Global warming & climate change
- High population density
- High level of poverty

Flood:

Floods are annual phenomena, with the most severe occurring during the months of July and August. Regular river floods affect 20% of the country, increasing up to 68% in extreme years. The floods of 1988, 1998, 2004 and 2007 were particularly catastrophic, resulting in large-scale destruction and loss of lives.



- ✚ Flash floods caused by overflowing of hilly rivers in eastern and northern Bangladesh (in April-May and September-November).
- ✚ Rain floods caused by drainage congestion and heavy rains.
- ✚ Monsoon floods caused by major rivers usually in the monsoon (during June-September).
- ✚ Coastal floods caused by storm surges.

The 1998 flood lasted for 65 days from July 12 to September 14 and affected about 67% of area of the country. In the year 2000, Bangladesh faced an unusual flood over its usually flood-free south western plain, which also caused loss of life and massive damage to property. In 2004, floods inundated about 38% of the country. About 747 people lost their lives. About 2,500 kilometers of embankment were damaged and about 74 primary school buildings were washed away. This flood caused economic losses of about US\$2,200 Million. Floods continue to be major hazards in Bangladesh.

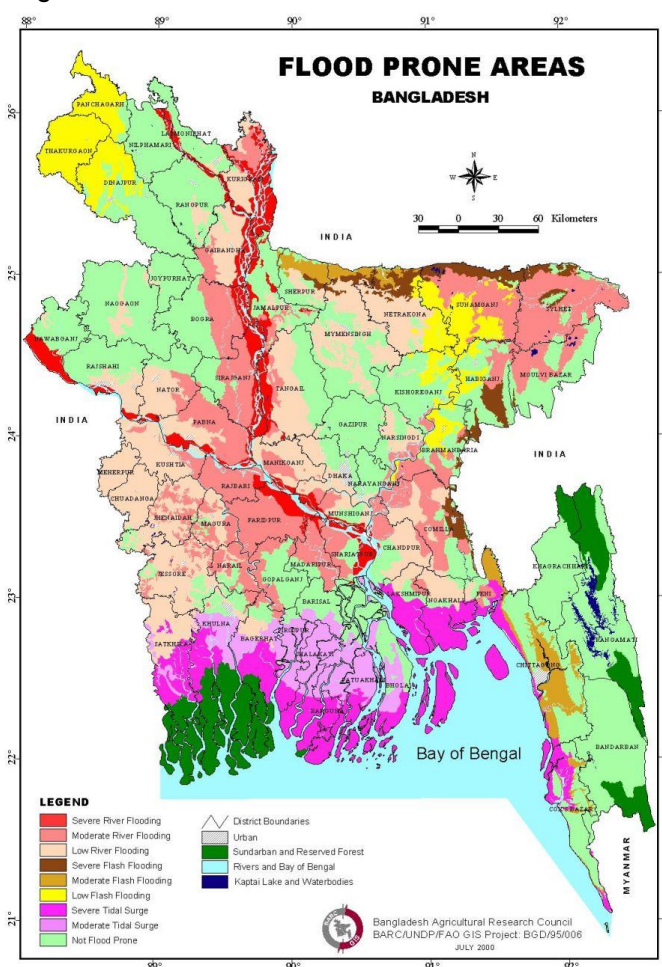
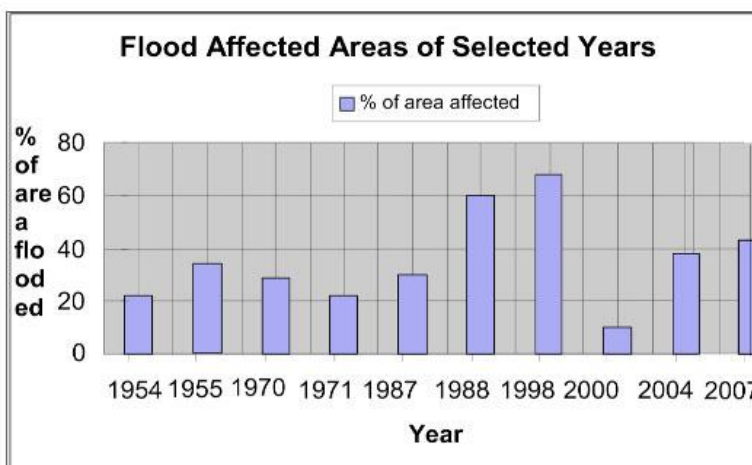


Table: Flood, 2007

Affected District	39
Affected Upazila	256
Affected Union, Affected Pourashava	205 767
Families affected at present	22,86,564
Affected People	1,06,55,145
Death (drowning, snake bite etc)	554
Households (Full)	62,956
Households (Partial)	8,81,922



To mitigate the impacts of floods, the government has been developing and implementing various measures to better equip the country to deal with floods. The Ministry of Water Resources (MoWR) is



leading the country on flood mitigation initiatives. Important initiatives include Flood Action Plan, Flood Hydrology Study, Flood Management Model Study, National Water Management Plan, National Water Policy, Flood Early Warning System Study, etc.

Tropical cyclone:

Tropical cyclones from the Bay of Bengal accompanied by storm surges are one of the major disasters in Bangladesh.

The country is one of the worst sufferers of all cyclonic casualties in the world. Number of casualties is due to the fact that cyclones are always associated with storm surges. Storm surge height in excess of 9m is not uncommon in this region. For example, the 1876 cyclone had a surge height of 13.6 m and in 1970 the height was 9.11 m. In fact, the 1970 cyclone is the deadliest cyclone that has hit Bangladesh coastline. With a wind-speed of about 224 km per hour and associated storm surge of 6.1 to 9.11m, it was responsible for deaths of about 300,000 people.

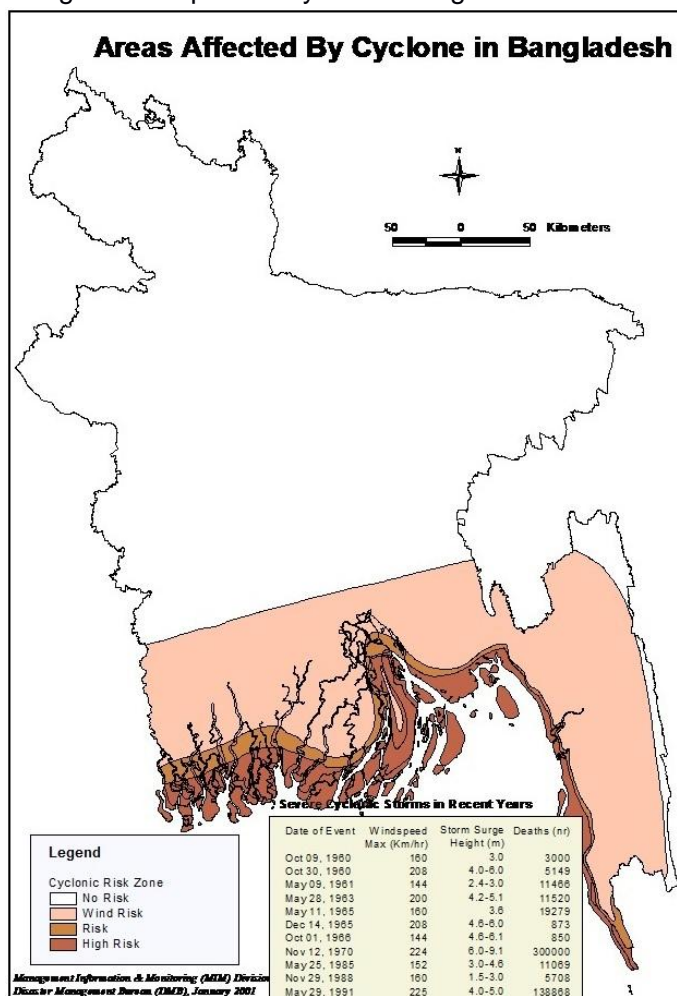
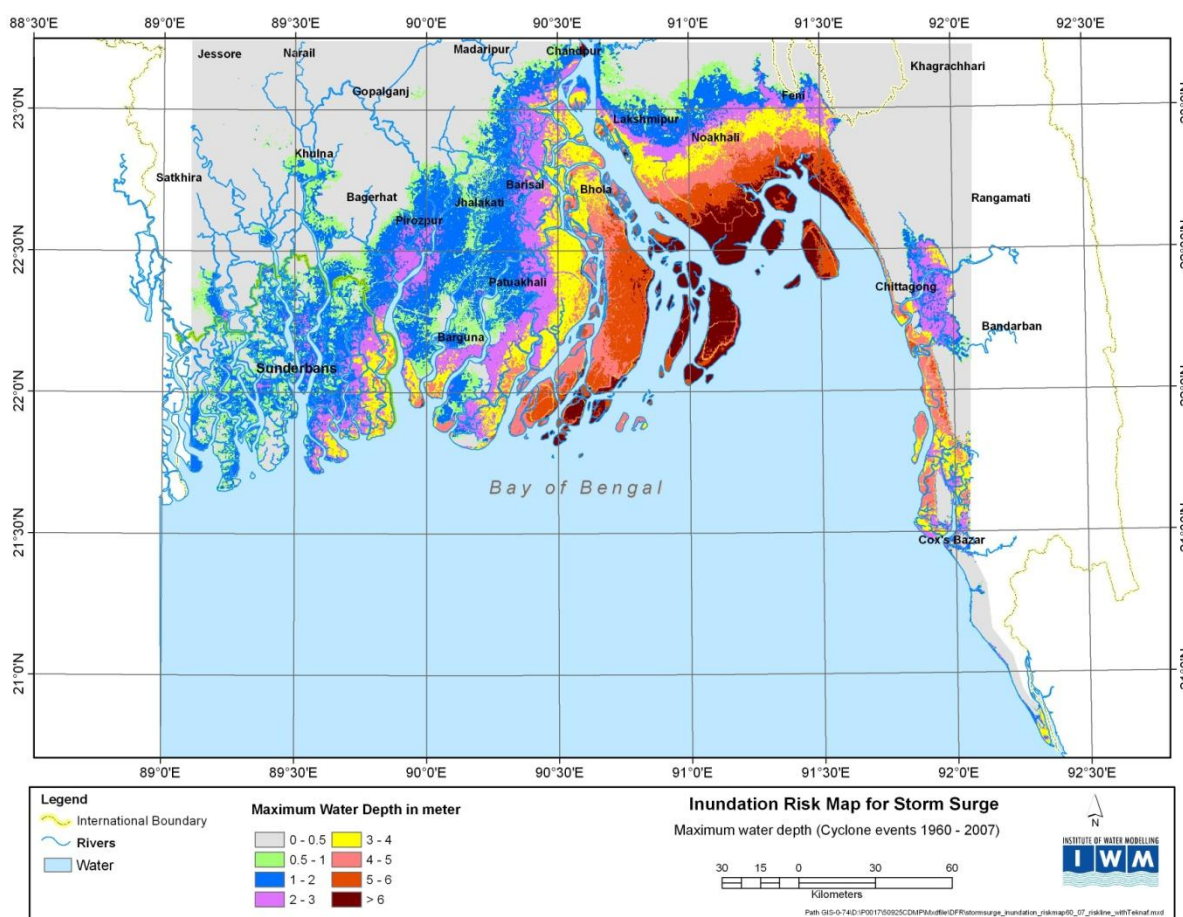


Table 1: Major cyclones that hit the Bangladesh coast

Date		Maximum Wind speed (km/hr)	Storm Surge height (metres)	Death Toll
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 (SIDR)	2007	223	4.2-4.6-	3363
25 May (AILA)	2009	92	--	190
16 May (Mahasen)	2012	130	--	16

Source: Bangladesh Meteorological Department 2013



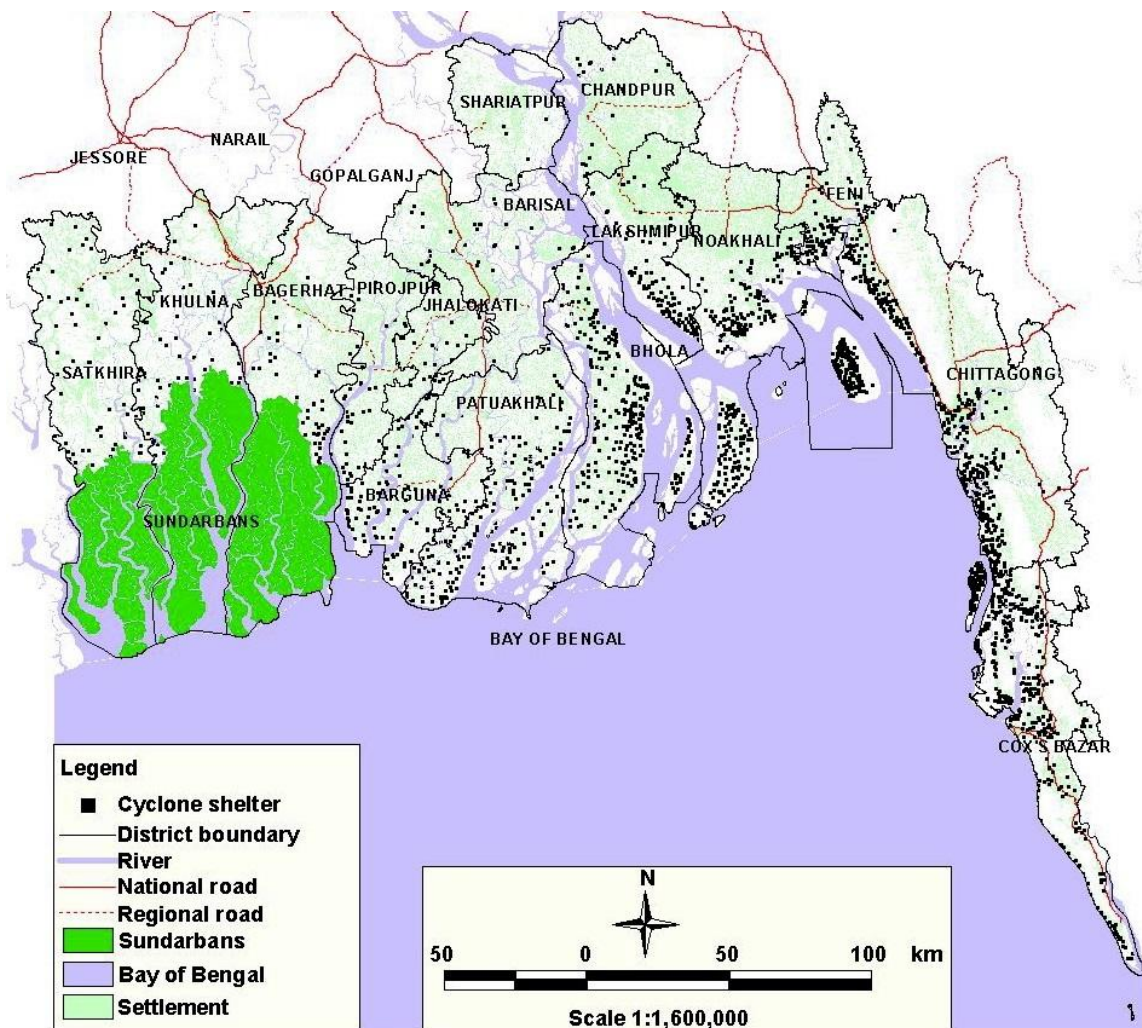
Government Immediate Response:

The Government, in coordination with NGOs and international organizations, has done a commendable job in responding to the cyclone emergency and assisting the affected



population. The MoDMR activated emergency response committees at the District, Upazilla, and Union levels and established an operations center in Dhaka to coordinate relief activities. Military personnel were deployed to assist with rescue operations and the distribution of food and relief services. It may pointed out that due to the increase in the number of population and the cattle heads, it has become essential to construct at least 2,000 of disaster shelters & killas in the coastal areas. The Ministry of Primary & Mass Education has taken up a programme under the project title "Primary Education Development Programme-2 (PEDP-2)" to construct 507 schools-cum-shelters in the coastal areas. It is expected that the others Ministries, Divisions, Organizations and NGOs will also construct about 300 shelters. Considering this, the MoDMR has decided to construct the remaining 1,200 disaster shelters and killas as per the recommendations of the reports of the technical committee.

Cyclone Shelter Location Map:




Tornado:

The two transitional periods between southwest and northeast monsoons over the Indian sub-continent are characterized by local severe storms. The transitional periods are usually referred to as pre-monsoon (March-May), and post-monsoon (October-November). It is the pre-monsoon period when most of the abnormal rainfall or drought conditions frequently occur in different parts of Bangladesh. Also there are severe local seasonal storms, popularly known as nor'westers (kalbaishakhi). Severe nor'westers are generally associated with tornadoes. Tornadoes are embedded within a mother thundercloud, and moves along the direction of the squall of the mother storm. The frequency of devastating nor'westers usually reaches the maximum in April, while a few occur in May, and the minimum in March. Nor'westers and tornadoes are more frequent in the afternoon. Nor'westers may occur in late February due to early withdrawal of winter from Bangladesh, Bihar, West Bengal, Assam, and adjoining areas. The occasional occurrence of nor'westers in early June is due to the delay in the onset of the southwest monsoon over the region.

Table: The devastating nor'westers and tornadoes that hit Bangladesh:

14 April 1969	Demra (Dhaka)
17 April 1973	Manikganj (Dhaka)
10 April 1974	Faridpur
11 April 1974	Bogra
09 May 1976	Narayanganj
01 April 1977	Faridpur
26 April 1989	Saturia (Manikganj)
14 May 1993	Southern Bangladesh
13 May 1996	Tangail
04 May 2003	Brahmanbaria
21 March 2005	Gaibandha
22 March 2013	Brahmanbaria



Wind speeds in nor'westers usually do not exceed 113-130 km/hr (70-80 miles/hr), though often their speeds exceed 162 km/hr (100 miles/hr). When the winds become whirling with funnel shaped clouds having a speed of several hundred kilometers or miles per hour, they are called tornados. Nor'westers bring the much-needed pre-monsoon rain. They can also cause a lot of havoc and destruction. Tornados are suddenly formed and are extremely localized in nature and of brief duration. Thus, it is very difficult to locate them or forecast their occurrence with the techniques available at present. However, high-resolution satellite pictures, suitable radar, and a network of



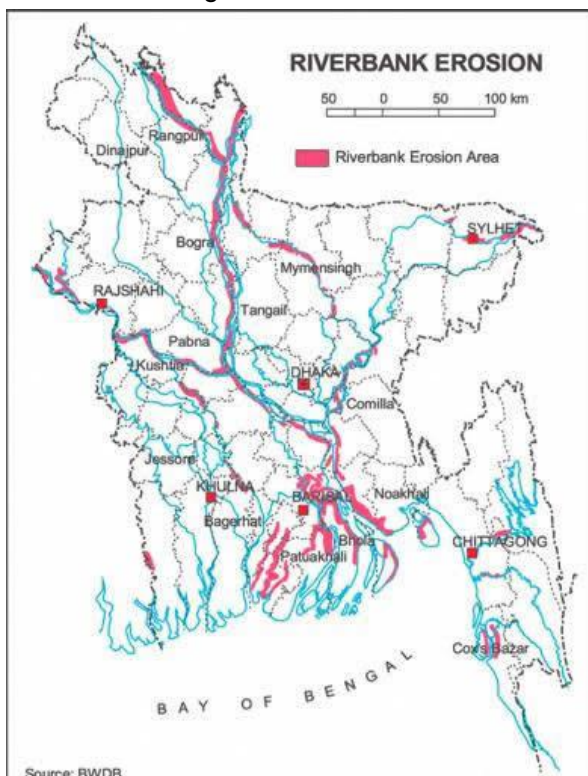
densely spaced meteorological observatories could be useful for the prediction or for issuing warnings of nor'westers and tornados.

River Bank Erosion:



River erosion in Bangladesh is no less dangerous than other sudden and devastating calamities. Losses due to river erosion occur slowly and gradually. Though losses are slow and gradual, they are more destructive and

far-reaching than other sudden and devastating calamities. The effects of river erosion are long-term. It takes a few decades to make up the losses, which a family



has incurred by river erosion. There has been little progress, however, for improving the lives of erosion-affected people due to resource constraint. This is an ongoing disaster and there is no specific indicator to measure the extent of damage. So the extent of damage caused by river erosion in most cases is based on various reports/information. Needless to say whatever the difference in ascertaining the extent of damage river erosion causes huge loss of property throughout the year. According to "World Disaster Report 2001" published by IFRC every year about

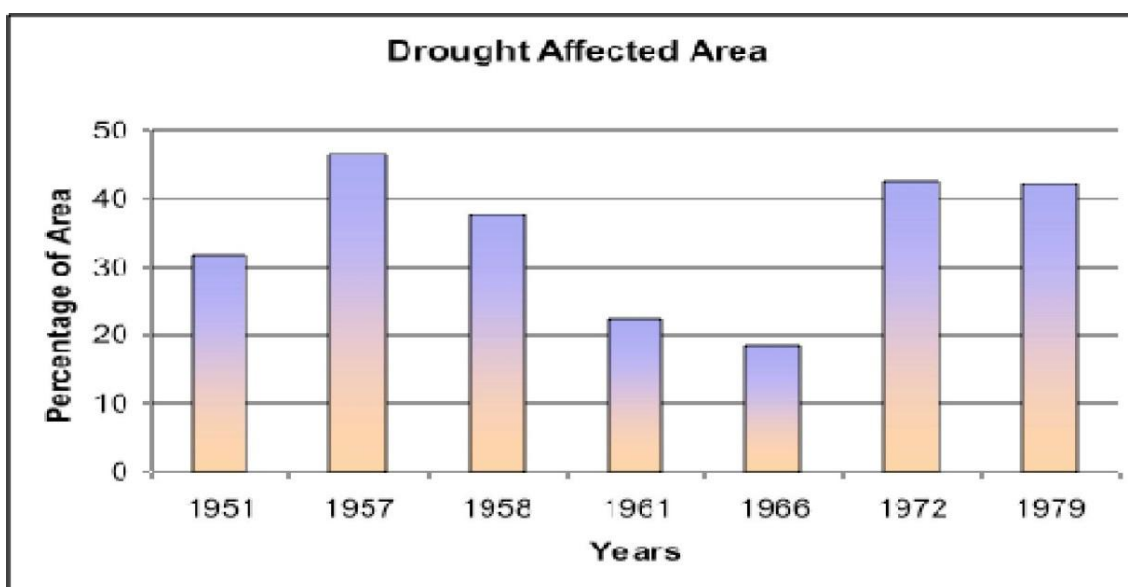
10,00,000 people are affected by river erosion and 9,000 hectare cultivable lands are banished in river. Among these only a few affected people are able to find new shelters while others become homeless for uncertain period. A recent study of CEGIS (2005)

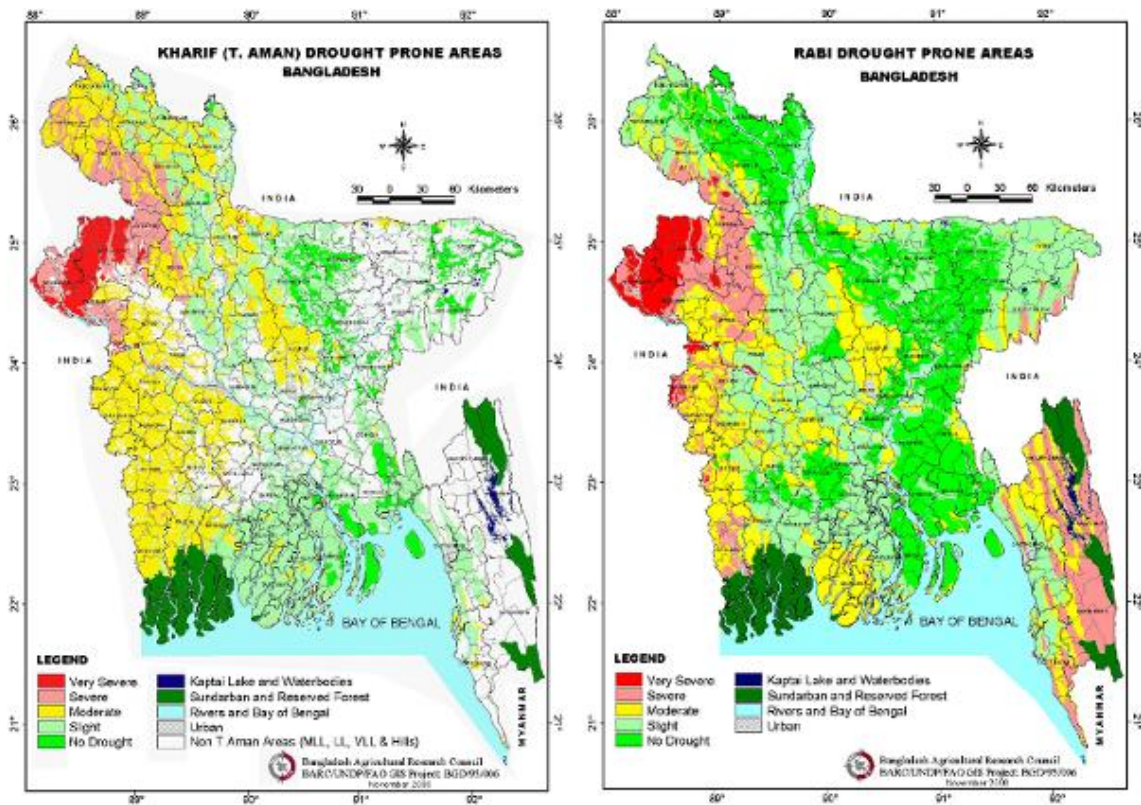


shows that bank erosion along Padma River during 1973 – 2004 was 29,390 hectares and along Jamuna River during 1973 – 2004, it was 87,790 hectares.

Droughts:

Drought conditions due to deficiency in rainfall affect different parts of Bangladesh mostly during the pre-monsoon and post-monsoon periods. Between 1949 and 1991, droughts occurred in Bangladesh 24 times. Very severe droughts hit the country in 1951, 1957, 1958, 1961, 1972, 1975, 1979, 1981, 1982, 1984 and 1989. Past droughts have typically affected about 47% area of the country and 53% of the population (WARPO, 2005). Bangladesh faces unpredictable drought hazard in the dry monsoon due to inadequate and uneven rainfall. It varies from place to place, however, and the northwestern region suffers most from the drought. As much as 17% of the Aman crops, the main paddy crops in the wet season may be lost in a typical year due to drought.

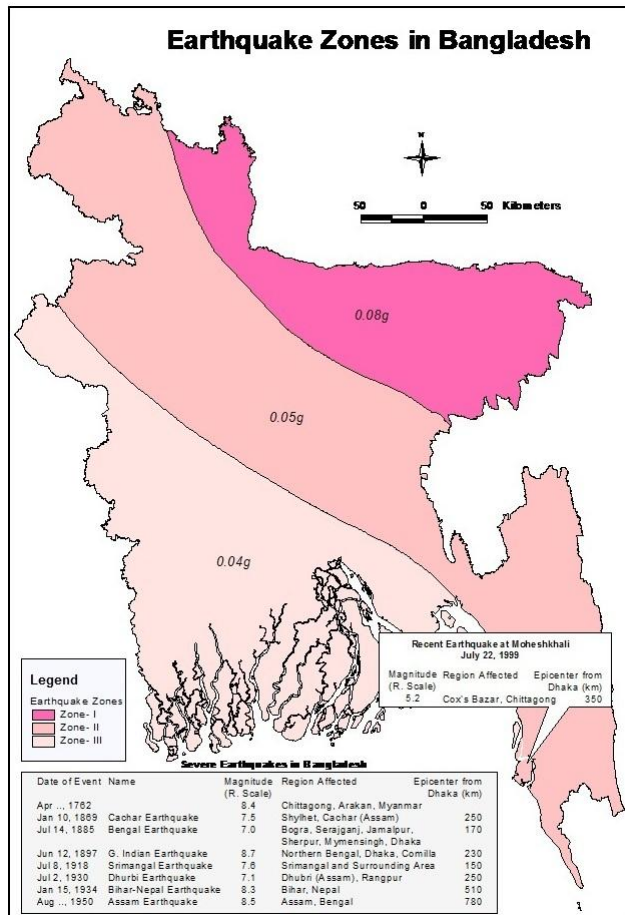




Earthquake:

The historical seismic data of Bangladesh and adjoining areas indicate that Bangladesh is vulnerable to earthquake hazard. The record of approximately 150 years shows that Bangladesh and the surrounding regions experienced seven major earthquakes (with $M_b = 7$). In the recent past, a number of tremors of moderate to severe intensity had already taken place in and around Bangladesh. The Sylhet Earthquake ($M_b = 5.6$) of May 8, 1997, the Bandarban Earthquake ($M_b = 6.0$) of November 21, 1997, the Moheshkhali Earthquake ($M_b = 5.1$) of July 22, 1999, the Barkal (Rangamati) Earthquake ($M_b=5.5$) of July 27, 2003, the Meghalay Earthquake ($M_b=5.2$) of March 02, 2013 and many more shakes in the recent years may be cited as examples. Bangladesh and the northeastern Indian states have long been one of the seismically active regions of the world, and have experienced numerous large earthquakes during the past 200 years. Many of seismic-tectonic studies have been undertaken on the area comprising the Indo-Burman ranges and their western extension and in the northern India. Major active fault zones of the country have been delineated through geological trenching and dating methods. A seismic zoning map of Bangladesh has





been proposed in 1979 by Geological Survey of Bangladesh (GSB) dividing the country into three seismic zone which was accompanied by an outline of a code for earthquake resistant design. Later, a new updated seismic zoning map and detailed seismic design provisions have been incorporated in Bangladesh National Building Code (BNBC 1993). A seismicity map of Bangladesh and its adjoining areas has also been prepared by BMD and GSB. Bangladesh has been classified into three seismic zones with zone-3 the most and zone-1 the least vulnerable to seismic risks.

Table 5: List of Major Earthquakes Affecting Bangladesh

Date	Name	Magnitude (Richter)	Epicentral Distance from Dhaka (km)	Epicentral Distance from Sylhet City (km)	Epicentral Distance from Chittagong (km)
10 January, 1869	Cachar Earthquake	7.5	250	70	280
14 July, 1885	Bengal Earthquake	7.0	170	220	350
12 June, 1897	Great Indian Earthquake	8.7	230	80	340
8 July, 1918	Srimongal Earthquake	7.6	150	60	200
2 July, 1930	Dhubri Earthquake	7.1	250	275	415
15 January, 1934	Bihar-Nepal Earthquake	8.3	510	530	580
15 August, 1950	Assam Earthquake	8.5	780	580	540



Recent Major Disasters:

Cyclone Aila (May 2009)

Cyclone Aila hit the Bangladesh on Monday 25 May 2009 and has produced substantial damage across areas of southern Bangladesh. It caused 190 immediate deaths, injuries to 7,103 people and more than 500,000 people to become homeless. The total damage was \$ 1.7 billion.



Cyclone Sidr (November 2007)



Cyclone Sidr hit the coastal areas on 15 November 2007. It affected 87,000 people, killed 3,363 and injured 55,282 and 564,000 homes have been destroyed, 8,85,280 houses have been damaged. Total damage and losses were (in USD) 23

billion.

Cyclone (April 1991)

On April 29, 1991, a cyclone struck the country of Bangladesh, causing a massive storm surge and widespread flooding. Approximately 138,000 people perished in this disaster.





Although cyclones frequently hit this region of the world, this cyclone was one of the strongest hurricanes in recent history. The 270 km/hr wind speed caused a 6 meter high storm surge that flooded a large area of the country. The

total damage was \$ 1.5 billion.

Cyclone (November 1970)

The 1970 Bhola cyclone was a devastating tropical cyclone that struck Bangladesh on November 12, 1970. It remains the deadliest tropical cyclone ever recorded, and one of the deadliest natural disasters in modern times. The 34.8 foot (10.6 meter) storm surge caused the highest tropical cyclone death toll in history,



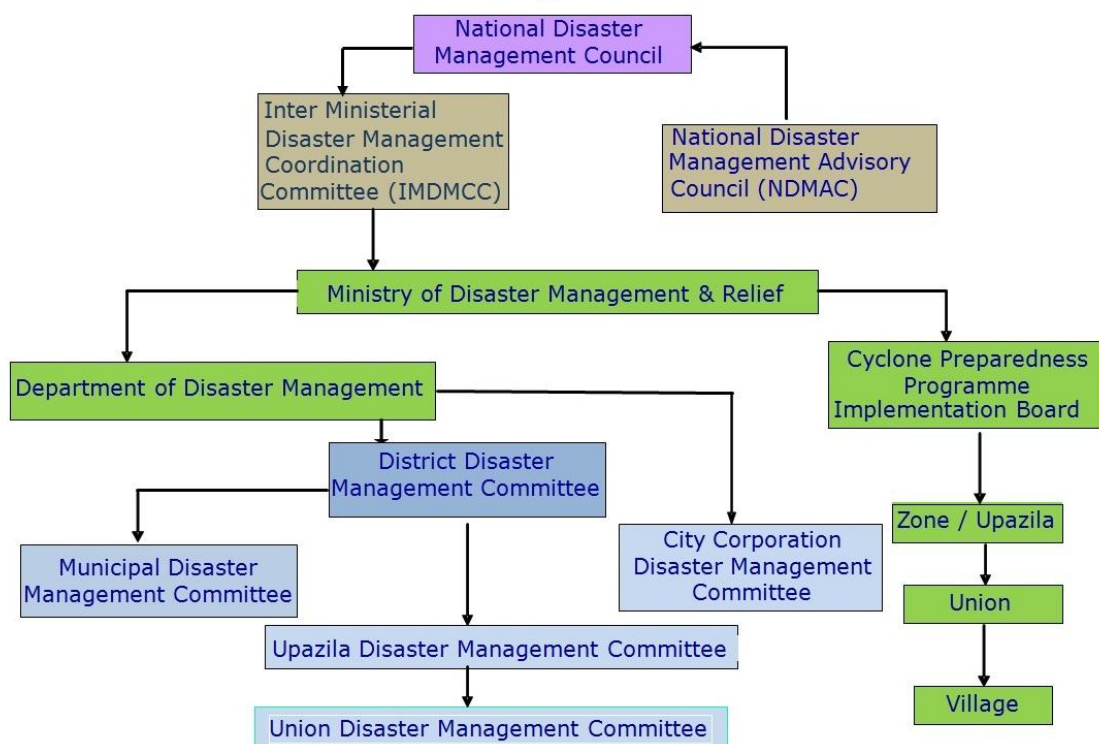
about 300,000 people were killed. Two hundred and fifty miles of coastline on the Bay of Bengal was devastated and homes, crops, cattle and poultry, everything washed away. The total damage was US\$24 billion.



Disaster Management System in Bangladesh:

A series of inter-related institutions, at both national and sub-national levels have been created for disaster management. As per the Rules of Business of the Government of Bangladesh, the Ministry of Disaster Management and Relief (MoDMR) is mandated to formulate policies, prepare plans, and monitor and coordinate all aspects of disaster activities. The field level activities of MoDMR are carried out by two subordinate offices e.g. the Department of Disaster Management and Cyclone Preparedness Centre (CPP), While DDM is responsible for dissemination of all information on natural disasters, including flood information at community level, flood preparedness, awareness raising and capacity building activities, and also is responsible for conducting relief and rehabilitating operations with the help of district and upazila administrations.

Disaster Management Institutions in Bangladesh



The Ministry issued the Standing Orders on Disaster (SOD) in January 1997 to guide and monitor disaster management activities in Bangladesh. The SOD has been prepared for concerned persons to understand their duties and responsibilities regarding disaster management. All Ministries, Divisions/Departments and Agencies shall prepare their own



Action Plans in respect of their responsibilities under the Standing Orders for efficient implementation. The National Disaster Management Council (NDMC) and Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) will ensure coordination of disaster related activities at the National level. Coordination at District, Thana and Union levels will be done by the respective District, Thana and Union Disaster Management Committees. The Disaster Management Bureau will render all assistance to them by facilitating the process. A series of inter-related institutions, at both national and sub-national levels have been created to ensure effective planning and coordination of disaster risk reduction and emergency response management.

Regulative Framework

In order to manage the paradigm shift in disaster management, a disaster management regulative framework is established under which the Bangladesh Disaster Management Framework is implemented, and in which work of Ministries, Departments, NGOs and civil society are undertaken. The regulative framework provides the relevant legislative, policy and best practice framework under which the activity of Disaster Risk Reduction and Emergency Response Management in Bangladesh is managed and implemented. The framework is comprised of:

Disaster Management Act

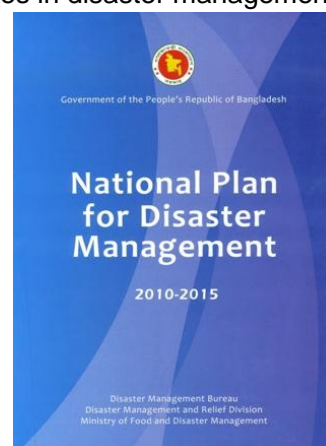
The Disaster Management Act creates the legislative framework under which disaster risk reduction and emergency response management is undertaken in Bangladesh, and the legal basis in which activities and actions are managed. It also creates mandatory obligations and responsibilities on Ministries, committees and appointments.

National Disaster Management Policy

The National Disaster Management Policy defines the national policy on disaster risk reduction and emergency response management. and describes the strategic policy framework, and national principles of disaster management in Bangladesh. It is strategic in nature and describes the broad national objectives, and strategies in disaster management.

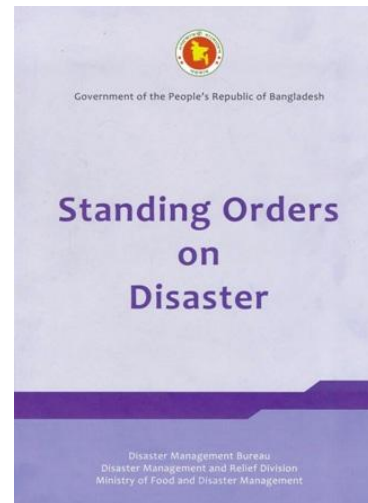
National Plan for Disaster Management (2010-15)

The National Plan for Disaster Management defines in broad outline the systemic and institutional mechanisms under which disaster risk reduction and emergency response management is undertaken in Bangladesh. It outlines disaster management vision, strategic goals and conceptual framework. It establishes disaster management regulative and planning frameworks, and identifies priority areas for disaster risk reduction and emergency response management



Standing Orders on Disaster (SOD)

The Standing Orders on Disaster outlines the disaster management arrangements in Bangladesh and describes the detailed roles and responsibilities of committees, Ministries, Departments and other organizations involved in disaster risk reduction and emergency response management, and establishes the necessary actions required in implementing Bangladesh's Disaster Management Model, e.g., defining the risk environment, managing the risk environment, and responding to the threat environment.



Website Links:

- [The Disaster Management Act ;](#)
- [National Plan for Disaster Management \(2010-15\);](#)
- [Standing Orders on Disaster \(SOD\);](#)
- [Emergency Preparedness Plan for Cyclone & Earthquake Preparedness Measures.](#)

Disaster Management Regulative Framework



NATIONAL DISASTER CONTEXT

- ✚ Frequently hit by various natural disasters like Cyclones, Storm surges, Floods, Tornadoes, Droughts and other calamities.
- ✚ Monsoon flooding is an annual occurrence shaping lives and livelihoods.
- ✚ Almost 200 disaster events have occurred causing more than 500,000 deaths and leaving prolonged damage to livelihoods, infrastructure and the economy.
- ✚ Climate change is likely to cause significant impact in the form of severe floods, cyclones, droughts, sea level rise and salinity affecting agriculture, livelihoods, natural orders, water supply, health etc.
- ✚ The disaster vulnerable people demonstrates strong coping capacity to face the disaster challenges.

GOB Vision on Disaster Management:

To reduce the vulnerability of people, especially the poor, to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level

Mission of the MODMR:

To bring a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture

Overall Objective:

- ✚ to strengthen the capacity of the Bangladesh Disaster Management System

National and international Drivers

- ✚ Millennium Development Goals (MDG)
- ✚ Hyogo Framework for Action (HFA)
- ✚ United Nations Framework Convention on Climate Change (UNFCCC)
- ✚ SAARC Framework for Action (SFA)



Coordinated Response to Disaster Emergency



National Committees under SOD

- ✚ National Disaster Management Council (NDMC)
- ✚ Inter-Ministerial Disaster Management Co-ordination Committee (IMDMCC)
- ✚ National Disaster Management Advisory Committee (NDMAC)
- ✚ Cyclone Preparedness Program Implementation Board (CPPIB)
- ✚ Disaster Management Training and Public Awareness Building Task Force (DMTATF)
- ✚ Focal Point Operation Coordination Group of Disaster Management (FPOCG)
- ✚ NGO Coordination Committee on Disaster Management (NGOCC)
- ✚ Committee for Speedy Dissemination of Disaster Related Warning/ Signals (CSDDWS)

Field Level Committees under SOD

- ✚ District Disaster Management Committee (DDMC) headed by the Deputy Commissioner (DC) to co-ordinate and review the disaster management activities at the district level
- ✚ Upazila Disaster Management Committee (UZDMC) headed by the Upazila Nirbahi Officer (UNO) to co-ordinate and review the disaster management activities at the Upazila level



- ✚ Union Disaster Management Committee (UDMC) headed by the Chairman of the Union Parishad to co-ordinate, review and implement the disaster management activities of the concerned union
- ✚ Pourashava Disaster Management Committee (PDMC) headed by Chairman of Pourashava (municipality) to co-ordinate, review and implement the disaster management activities within its area of jurisdiction
- ✚ City Corporation Disaster Management Committee (CCDMC) headed by the Mayor of City Corporations to co-ordinate, review and implement the disaster management activities within its area of jurisdiction.

National Institutions for Disaster Management:

Department of Disaster Management (DDM)

DDM is designed as a small dynamic professionals unit at national level to perform specialised functions in the field of disaster preparedness, local disaster action planning, contingency planning, raising public awareness, training and facilitating improved disaster information flows. DDM works under MODMR and overviews and coordinates all activities related to disaster management from the national level down to the grass-roots level. DDM is committed to enhancing regular dialogues and fostering co-operation in practical disaster preparedness matters 'before, during and after' a disaster between all levels of government, donors, non-government organisations, community groups and others. DDM's main strength is the mandate and authority for dissemination of early warning of different disasters. DDM has a total of 48 technical professionals stationed at their head office in Dhaka. It has a vast network under its authority through a standing order.

Currently, DDM is working on cyclone and flood information warning dissemination, but it has plans to extend its dissemination activities to other disasters. A process of hazard mapping is also under consideration. A website (<http://www.ddm.gov.bd>) is currently available with only static historic information, but it could be made dynamic for updating with early warnings like the FFWC website.

Cyclone Preparedness Program (CPP)

- ✚ Community Based Early warning through devoted volunteers.
- ✚ A Joint Venture Program of GOB & BDRCS.



- ✚ To minimize loss of lives and properties in cyclonic disaster by strengthening the capacity in disaster management of the coastal people of Bangladesh.
- ✚ Covers 13 districts and 37 Upazilas (Sub-District).
- ✚ Total Volunteers: 49,215

Comprehensive Disaster Management Program (CDMP)

CDMP is a strategic institutional and programming approach that is designed to optimize the reduction of long-term risk and to strengthen the operational capacities for responding to emergencies and disaster situations including actions to improve recovery from these events.

Strategic Focus Areas:

- ✚ Professionalizing the Disaster Management System: Establishment of Policy Program Partnership Development Unit, Professionalizing development of Disaster Management System, etc.
- ✚ Partnership Development: Advocacy and Capacity Building of DMCs.
- ✚ Community Empowerment: Program Gap Analysis, Risk Reduction Planning, Livelihood Security and hazard Awareness, etc.
- ✚ Expanding Preparedness Program across a broader range of hazards: Earthquake and Tsunami Preparedness , Climate Change and Research.
- ✚ Strengthening Emergency Response Capabilities: DMIC and Response Management.

Infrastructure for Disaster Risk Reduction

- ✚ Over 2,500 Cyclone Shelters along the coastal belt of Bangladesh.
- ✚ Killas (Elevated Land) for Shelter of Livestock.
- ✚ Flood Protection Embankment along coast line.
- ✚ 1400 Flood Shelters in Flood-Prone Areas.

Space Research and Remote Sensing Organization (SPARRSO)

SPARRSO acts as the centre of excellence and national focal point for the peaceful applications of space science, remote sensing and geographic information system (GIS) in Bangladesh. SPARRSO also advises the government in all matters relating to space technology applications and policies. SPARRSO maintains close collaboration with national, regional and international organizations, institutions and agencies and disseminates research results, satellite data and information to the relevant public, autonomous and



private agencies for their development and policy-making activities. SPARRSO's mandate includes monitoring and research on environmental issues. For this purpose they receive images daily to observe weather patterns and floods and prepare flood reports including flood maps showing flood-affected areas.

Bangladesh Meteorological Department (BMD)

BMD is the government organization authorized for all meteorological activities in the country. It maintains a network of surface and upper air observation stations, radar and satellite stations, agro-meteorological observation stations, geomagnetic and seismological observation stations and meteorological telecommunication system. BMD contributes to flood forecasting and warnings by preparing short/medium and long term weather forecasts, 3-hourly surface charts, 6 and 12-hourly upper air charts, heavy rainfall warnings, and special weather bulletins with storm surge information. BMD is the only government authorized organization mandated to issue all sorts of weather forecast and record meteorological observations (surface and upper air) in Bangladesh. BMD has been affiliated to the World Meteorological Organization (WMO) since 1972.

FFWC is a division of the Directorate of Processing and Forecasting, under the Chief Engineer, Hydrology. Together FFWC, Surface Water Hydrology (SWH) and Construction and Instrumentation (C&I) undertake the transmission and processing of data for flood forecasting and warning services. It maintains a strong institutional network for disseminating flood forecasts at national level.

Other Institutions for Disaster Management:

Center for Environmental and Geographic Information Services (CEGIS)

CEGIS is a Public Trust organization under the Ministry of Water Resources and functions under a Board of Trustees chaired by the Secretary of the Ministry of Water Resources on behalf of the government. CEGIS works in the fields of initial environment examination, environmental impact assessment, disaster management modelling, natural resource and risk management, GIS/RS mapping, and survey. CEGIS serves government and non-government organizations. CEGIS has developed several disaster and warning related tools including a Community Based Flood Information System (CFIS); an Environmental Monitoring Information Network (EMIN); and a Climate Forecast Application Network



(CFAN). Currently, CEGIS is in the process of development/acquiring technology for a regional basin flood forecast modeling for use in Bangladesh. Also, CEGIS has started to acquire knowledge on urban and flash flood forecasting.

An operational pilot system was developed to produce daily flood monitoring and forecast maps for use at the community level under Community Flood Information System (CFIS). CFIS project was designed as a pilot operational system to produce accurate and timely information on current and forecasted flood conditions for a floodplain community by using easy understandable mobile SMS. This created an important opportunity for low-cost, reliable, and deeply penetrating dissemination of flood forecasts for vulnerable communities.

CEGIS has developed a methodology for predicting the morphology process and bank erosion along the Jamuna, Ganges and Padma Rivers based on space-based technology. The methodology makes it possible to predict morphological development and bank erosion one to two years ahead.

The Institute of Water and Flood Management (IWFM)

IWFM is a research institute of the Bangladesh University of Engineering and Technology (BUET). Its mandate includes conducting research on floods focusing on integrated water management, organizing seminars and workshops related to floods, and offering a post graduate diploma in Water Resources Development.

Institute for Water Modelling (IWM)

IWM is an institute of learning and research in the fields of water modelling, computational hydraulics and allied sciences established as a Public Trust under the ministry of Water Resources. IWM activities in flood forecasting and warning include the collection of real time hydrometric data for running flood forecasting and inundation models; annually updating and validating the forecasting models; providing technical backstopping and training to FFWC; assisting FFWC to expand into new areas; developing dynamic flood inundation models (MIKE FLOOD) and issuing medium (10 days) flood predictions based on climate forecasts produced by the CFAB project.



Implementation of Hyogo Framework in Bangladesh:

Bangladesh

National progress report on the implementation of the Hyogo Framework for Action (2009-2011)

Priority for action 1

“Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation”

PROGRESS:

- ✓ A new ministry established to deal with disaster management affairs exclusively named Ministry of Disaster Management & Relief (MoDMR)
- ✓ National Disaster Management Plan (2010-2015) approved in April, 2010 linked with Vision 2021 and 6th Five Year Plan
- ✓ Revised Standing Orders on Disaster (SOD) , which explicitly outlined the DRR & CCA business for GO, NGO, public representatives & citizens
- ✓ National Disaster Management Act has been published in 2012

Priority for action 02

“Identify, assess and monitor disaster risks and enhance early warning”

- ✓ Updating of the risk assessment 12 guidelines in revised SOD
- ✓ Specific Sectoral Disaster Risk Reduction guidelines develops by CDMP
- ✓ Detailed risk assessment mapping for earthquake and tsunami for three cities Dhaka, Chittagong & Sylhet prepared and planned for new eight cities
- ✓ DRR budget now 4.5% of national Budget
- ✓ Climate Change Fund (CCF) US \$ 100m/Year
- ✓ Bangladesh Climate Change Resilience Fund (BCCRF) US \$ 110m
- ✓ Resource allocation increased to all line ministries towards DRR
- ✓ Development Partners support increases towards national DRR initiatives



Priority for action 03

“Use knowledge, innovation and education to built a culture of safety and resilience at all levels”

- ✓ Bangladesh DM Education Research and Training (BDMERT) established
- ✓ Key ministries, research institutions and civil society organization established website for sharing of disaster related knowledge
- ✓ DMIC established network with 64 Districts HQ and planned to expand to all 485 Upazilas by 2012
- ✓ BMD, FFWC, CPP, BTV, Radio, mobile phone companies & Other electronic and print media contributing significantly in dissemination of early warning and disaster Messages
- ✓ Disaster & climate risk information are included in text book from elementary to higher secondary level
- ✓ DRR education & special course in universities, institutions, armed forces div, civil service college etc

Priority 04

“ Reduce the underlying risk factors “

- ✓ National Adaptation Program of Action (NAPA) & Bangladesh Climate Change Strategy & Action Plan has already prepared
- ✓ Bilateral & multilateral donors exploring the possibilities of creating multi-donor trust fund to accelerate financing for research and adaptation
- ✓ Climate change Cell established and focal points identified for each ministries
- ✓ DRR & CCA link developed with the introduction of various program launched by different ministries i.e sustainable land management program, climate resilience crop varieties, cyclone resistance house etc
- ✓ Strong institutional arrangement for implementing social protection program
- ✓ National committee for updating national building code, land use plan
- ✓ Disaster risk reduction & EIA for all development projects



Priority for action 05

“ strengthen disaster preparedness for effective response at all levels”

- ✓ National Plan for DM, DM Act, SOD mentioned tasks for all sectoral safety preparedness
- ✓ For existing structure, retrofitting techniques are being introduced to combat earthquake
- ✓ Mock drill guidelines for school and hospitals safety
- ✓ Earthquake contingency developed for AFD, FSCD, DGHS & DRR
- ✓ 30,000 members of local DMCs imparted training on comprehensive DM
- ✓ DMB established damage, loss and need assessment cell
- ✓ 60,000 volunteer are working 13 cyclone prone district
- ✓ Search and rescue equipment
- ✓ Adequate reserve of relief materials in each district

RECENT DRR PROJECTS

- ✚ Construction of Bridges/Culverts (up to 12m long)
- ✚ Construction of Cyclone resistance Houses
- ✚ Procurement of Equipment for Search and Rescue operation on Earthquake and other disasters.
- ✚ Development of Community Volunteers
- ✚ Construction of Flood and Cyclone Shelter
- ✚ Comprehensive Disaster Management Program (CDMP) Phase 2
- ✚ Inundation Map/Risk Map for storm Surges
- ✚ Cyclone shelter Data Base
- ✚ Micro-zonation Map for greater districts
- ✚ Disaster Management Information center (DMIC)
- ✚ Mobile Communication for early warning by Cell Broadcasting System (CBS) , SMS and Interactive Voice Response (IVR)



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