

Challenges for disaster risk reduction



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With a population of about 152 million, Bangladesh has been identified as the highest ranking disaster prone countries and the fifth ranking in the risk index (2012) in the world. An estimate indicates that fourteen percent of the country's GDP is exposed to disasters per year. Although over the last four years the GDP growth (6.12 percent) and per capita income (USD 1312) have shown an upward mobility, high level of poverty (24.7 percent in 2015) remains a major concern. The underlying causes of persistent poverty in Bangladesh are of many folds, resulting from geo-physical settings within South Asia combines with social, economic and political factors. People living in the fragile geophysical location have to face frequent disasters. These people hardly have alternative options to come out of the vicious cycle of poverty and are forced to live in precarious conditions either in their original locations or moving elsewhere.

Floods are the most frequent disasters in Bangladesh, causing immense suffering to a large number of people, damaging infrastructure and other resources. Roughly one-third of the country become severely affected by floods while the catastrophic floods of 1988, 1998, 2004, and 2007 caused inundation of more than 60 percent of the country's land. The four types of flooding in Bangladesh include flash floods caused by overflowing of hilly rivers of eastern and northern Bangladesh; rain floods caused by drainage congestion and heavy rain falls; river floods during monsoon season; and coastal floods caused by storm surges. Flood has been characterised as both natural and

human induced disaster as it is related to many natural as well as humane structural and non-structural causes. Severe floods in Bangladesh have inundated areas, increased river erosion, breached embankments, and damaged standing crops and infrastructures.

Cyclone in this land is as old as its history, which has been mentioned by the eminent historian Abul Fazal in his *Ain-E-Akbari* in the 16th century. For ages, cyclones have remained as the deadliest and most hazardous disaster for human populations, other species and resources. Cyclones increase vulnerabilities of affected communities as recurring events, lingering in post disaster phases and associated with complex recovery. The deadliest cyclones in Bangladesh occurred in 1991. Two more severe cyclones Sidr (2007) and Aila (2009) affected the coastal belt of the country.

Slow onset disasters such as drought (already affected about 8.3 million hectare of land) and salinity intrusion (in 2007 intrusion spreading from 1.5 to 2.5 Mha) and climate change-related hazards, earthquakes, arsenic contamination in groundwater, fire incidence, infrastructure collapse and lately lightning have been putting people at multidimensional risks. Projected displacement would be 6-8 m by 2050. Bangladesh ranking, based on the number of people to be exposed to disaster risk, has been calculated as: first out of 162 countries due to flood; third out of 73 countries due to tsunami; and sixth out of 89 countries due to cyclones.

Data indicates that disasters pose serious impacts on human populations, societies and surrounding environments. It is a well recognised fact that climate change increases frequency and

severity of disasters with adverse impacts on humans, other species and ecosystem. Human health is at risk from growing incidences of diseases due to disasters, rising temperatures and rainfall variability. Deforestation, over fishing, over grazing, salt build up, waterborne diseases from irrigation, endangered wild life from loss of habitat, loss of genetic diversity, water pol-

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equally. There are multifaceted dimensions of vulnerability to disaster: children, elderly, people with disability, special occupational groups and women in poorer categories are among the most vulnerable.

The causes of disasters are multidimensional and shaped by complex interactions among natural/ecological/environmental, social and cultural processes. Disaster risks of a country are also related to the process of global and regional mitigation measures combined with national mitigation, preparedness and management capacities. Effective response with mitigation and adaptation measures to disasters and dissemination of information can reduce the adverse impacts of disastrous events on human health and resources.

Disaster risk reduction efforts in Bangladesh

In independent Bangladesh disaster management initiatives had commenced following the consequences of the devastating cyclone of 1970. Bangabandhu Sheikh Mujibur Rahman launched the "Cyclone Preparedness Programme" in 1973 and provided high preference on disaster management activities. However, attentions on disaster management issues had not been given priority by the successive governments, which is apparent from the country's inability to manage the two consecutive floods of 1987 and 1988 and the devastating cyclone of 1991. These disasters attracted international attentions while Bangladesh urged for international cooperation and expert support.

Since then challenges of managing disasters and to recuperate disaster loss Bangladesh has gradually stepped

towards disaster response mechanism through shifting paradigm from reactive emergency response to proactive risk reduction. In 1997 a well-designed document was drafted: Standing Orders on Disasters (SoD) (revised in 2010), which explains specific roles of relevant stakeholders (local and national levels) during different phases of disasters. A Comprehensive Disaster Management Programme (CDMP I and II) has been launched to facilitate disaster management approach. Academic institutes have been established at higher education levels to provide technical knowledge to disaster managers.

A good number of institutional structures to achieve technical monitoring, capacity building, preparedness and response in reducing disaster risks have been established by the Ministry of Disaster Management and Relief (MoDMR). The Disaster Management Act (2012), National Plan for Disaster Management and Disaster Management Policy have been prepared. With the contributions from academia and civil society the disaster management models adopted inclusive approach towards mainstreaming disaster risk reduction (DRR) including gender mainstreaming in DRR. The revised version of National Plan for Disaster Management has been developed in line with the international driver Sendai Framework of Disaster Reduction (SFDRR) for the next ten years. Other ministries have also endorsed some of the DRR inclusive documents in their plans and policies: the Sixth Five Year Plan (2010-2015) and Seventh Five Year Plan (2016-2021), Ministry of Planning; Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2009) and