



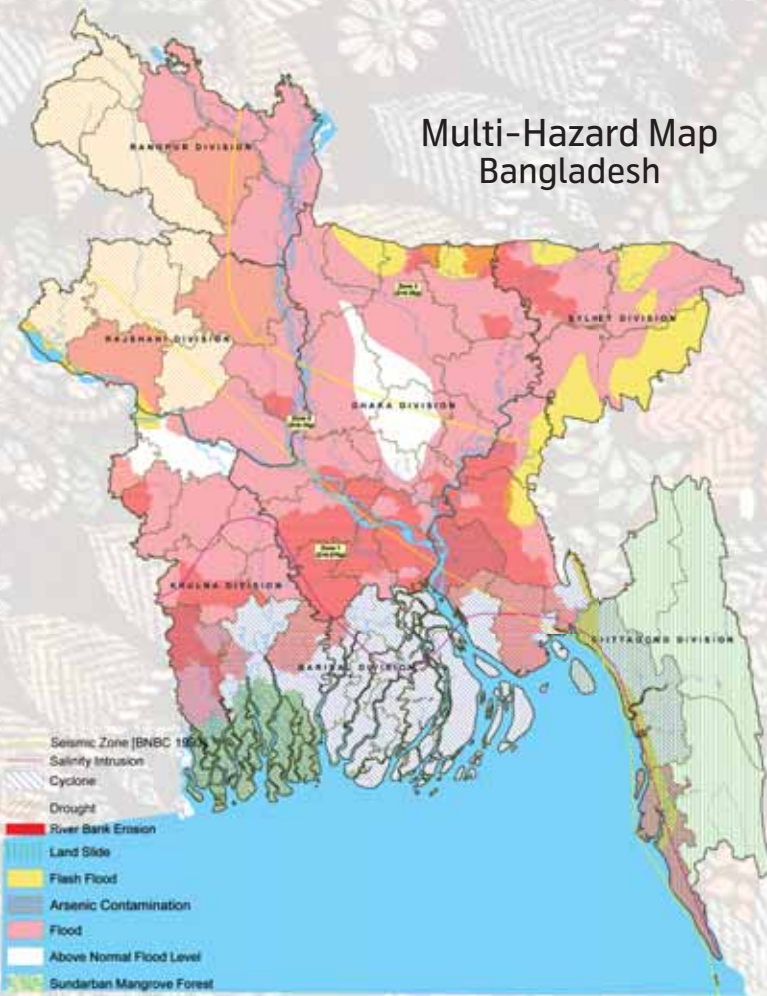
Department of Disaster Management
Ministry of Disaster Management and Relief
Government of the People's Republic of Bangladesh

Bangladesh: Towards Resilience HFA and Beyond

March, 2015



Multi-Hazard Map Bangladesh



(DRR) and has become a role model in the management of natural and human induced disasters. The HFA (2005-2015) provided an enabling environment for Bangladesh DRR actors to promote and motivate those outside of the sector to see Risk Reduction as a shared responsibility and to justify the paradigm shift from conventional response and relief practice to a more comprehensive risk reduction approach.

In the last 10 years Bangladesh has experienced low mortality resulting from its regular floods and cyclones. However, these disasters continue to bring a significant economic loss. Additionally, neglected and emerging risks are now being prioritized. Highly dense population (1,203 people/sq km), rapid and unplanned urbanisation (at a rate of 2.9% per year) combined with a significant earthquake risk pose a severe threat to lives, livelihoods and property in Bangladesh's cities. Slow onset and persistent disasters like salinity, waterlogging and drought merit increased attention. Drivers to economic growth are currently also contribute to increased risk; the IPCC's 5th Assessment Report projects that if temperature rises more than 2 degrees Celsius Bangladesh could lose more than 17% of its coastal land mass which makes clear the need for integrated efforts on climate adaptation and risk reduction programming to enhanced resilience in Bangladesh.

DRR in 2015

During 1990-2008 the Bangladesh incurred an average annual loss equal to 1.8% of the GDP due to natural disasters. Nevertheless, the country has made considerable and significant development gains over the last 10 years. Economic growth has been averaging 6% for the last decade, poverty has decreased from 40% in 2005 to 24.7% in 2014 and Bangladesh has already achieved five out of eight of the MDGs. This has all been achieved against the backdrop of being exposed to natural and human-induced hazards. It is estimated that 14% of Bangladesh's GDP is exposed to disasters on an annual basis. This is a testament to the innate resilience of the Bangladeshi people, who continue to make developmental progress while living with disasters and climate risk.

At the end of the Hyogo Framework period Bangladesh has emerged as a successful nation in Disaster Risk Reduction

HFA (2005 -2015) Achievements

In 2005 the HFA elaborated five priorities:

Priority Action 1: Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

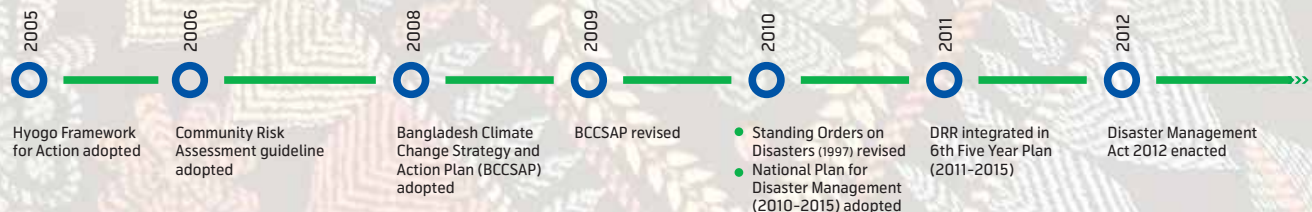
Priority Action 2: Identify, assess and monitor disaster risks and enhance early warning.

Priority Action 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels.

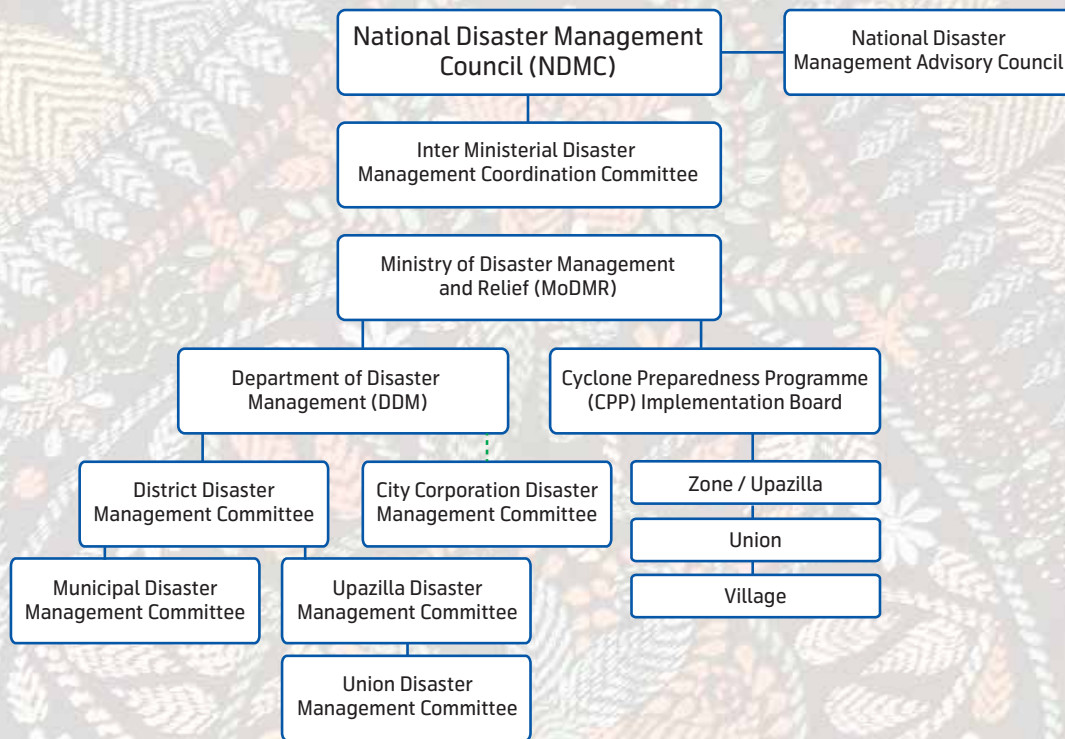
Priority Action 4: Reduce the underlying risk factors.

Priority Action 5: Strengthen disaster preparedness for effective response at all levels.

Bangladesh has taken action in all of these areas. Some key results are highlighted below:



Disaster Management Institutional Framework



Creation of a Legislative Framework

In 2012 Bangladesh's National Disaster Management Act was enacted. This led to the reorganisation of the Ministry of Disaster Management and its Department for Disaster Management. The reform not only demonstrated the highest level of political support for Disaster Management but also provided a home for the essential cross-government working that is required to address risk reduction.

Policy Convergence – Development and DRR

DRR has been accepted as a critical aspect of all development policy in Bangladesh. At the national level its inclusion as a sub-goal in the Government's "Vision 2021" and having been given a dedicated paper in the Seventh Five Year Plan has demonstrated the commitment to DRR. The Planning Commission's inclusion of DRR and CCA impact criteria in the development planning proforma has ensured that DRR and CCA activities are mainstreamed across all future development projects.

Coordinating with Civil Society

Coordination structures to ensure a strong information flow between government and development partners were reformed in 2012. These have been tailored to reflect national systems, but are based on global best practice. This included the establishment of thematic clusters for preparedness which strive to assist development partners to deliver high technical quality on all disaster management activities undertaken by civil society with government.

Technology complimenting local knowledge for effective early warning

Over the last 10 years there has been significant technical advances in forecasting, which the Bangladesh Meteorological Department (BMD) has harnessed. High risk storms are now tracked using satellite imagery throughout the Bay of Bengal and are linked to a well-established community level system for early warning. In 2013, for instance, well over 1.1 million people evacuated from high risk areas hit by TS Mahasen. The Flood Forecasting and Warning Centre (FFWC) has increased the warning time for river flooding from 3 – 5 days in Bangladesh's major river



systems, enabling approximately 88 million people to better protect or move their families and productive assets. The widespread use of mobile phones is enabling more than 100 million users to access accurate and up to the minute cyclone and flood warnings with ease.

Community Risk Assessments and MRVA.

Bangladesh has mainstreamed a bottom up approach to community risk assessment (CRA), now commonly used by local government and civil society. The approach enables communities to prioritize their risks and to address them using a range of investment tools. This process is becoming integrated into district level disaster management and development plans. The Department of Disaster Management has launched its GIS based Multi Hazard Vulnerability and Risk Assessment tool. This will complement local knowledge and preferences with scientifically valid information that will enable better coordination and planning among development actors and further reduce vulnerability.

Evacuation and Disaster Resilient Housing

A pragmatic, dynamic and informed approach to cyclone shelters and evacuation has up-to-date policy in this area. Significant progress has been made in construction and maintenance of cyclone shelters yet there are about thousands to build in order to reach 5,000 as targeted. A new cyclone shelter policy was produced in 2011 to ensure that they are fit for purpose; that they have adequate facilities and that they are suitable for men, women, children, elderly people and those living with disabilities. There is also recognition that not everyone will want to

go to a cyclone shelter and that another strategy for keeping people safe during cyclones is to commit to “Build Back Better” and supporting disaster resilient habitat programmes.

Increased Knowledge and Understanding of Risk

18 million children have disaster management lessons and simulations since the inclusion of disaster management and climate change into the national curriculum. Disaster awareness and earthquake safety programmes are being institutionalized through nation-wide safe school drills on the occasion of the Annual National Disaster Preparedness Day and the International Day for Disaster Reduction.

Research projects on a wide range of disaster and vulnerability issues, undertaken by national and international researchers, have helped to fill gaps in our understanding and have been used to inform new policy and practice. The Department for Disaster Management has established an on line library for disaster management (www.dmic.org.bd/e-library) , comprising more than 300 titles, that can be used as a knowledge archive and sharing platform for all the stakeholders engaged in this topic.

On commencing a career as a civil servant extensive disaster management training is provided. Specialised courses have also been established in government departments and institutes with particularly strong links to disaster management.



Finally, a new generation of disaster management professionals have been created through the initiation of disaster management undergraduate and post graduates courses available at six universities.

People helping people: The Centrality of Volunteerism

Bangladeshis have always helped their neighbours in times of crisis. This is a fundamental aspect of the country's culture. Building on this tradition the Government of Bangladesh and its partners established the Cyclone Preparedness Programme to utilize volunteers in vulnerable coastal areas. In 1970 the killer cyclone caused up to 300,000 deaths. In 2009 Cyclone Aila killed only 190. Today there are almost 50,000 cyclone volunteers still performing this essential task of early warning across the coastal area. More recently the Government has recruited 30,000 urban volunteers to work alongside the Fire Service and to assist in Urban Search and Rescue and fire safety. A pilot programme is underway to utilise the ANSAR & Village Defence Force an existing national volunteer network of approximately 6 million men and women to provide local flood warning. These volunteer networks have demonstrated their effectiveness in increasing the numbers who evacuate before a cyclone. The social status gained from these positions enables this spirit of volunteerism to flourish in Bangladesh.



Neglected and Emerging Hazards

Though good practice on reducing risk to floods and cyclones in Bangladesh increased attention is now placed on tackling neglected and emerging hazards. Rapid urbanisation is creating new exposure to risks, in particular the prospect of major earthquakes which have the potential to cause catastrophic damage. CDMP's ground breaking estimates on vulnerability in Dhaka, for example, estimate that a 7.5 Richter scale earthquake could damage 72,316 buildings beyond repair and create an estimated 72 million metric tonnes of debris. Under-addressed, chronic climate-induced disasters such as saline intrusion, waterlogging and drought require further cross-government and trans-boundary responses which will be reflected in activities over the next ten years.

Lessons Learned

Priority 1: Ensure that disaster risk reduction (DRR) is a national and a local priority with a strong institutional basis for implementation

In the era of HFA (2005 -2015) various actors across the government and the civil society were mobilised and motivated to understand DRR and to include risk reduction in their policies and plans. However, there is still a need to raise awareness at the local level on DRR policies, as these have not been well communicated to all stakeholders. The roll out of the Disaster Management Act 2012 and Standing Orders on Disaster 2010 from the national to local level has faced some challenges. Bangladesh must develop a communication policy to promote public awareness, with a greater focus on gender and inclusion issues in DRR. Local level Disaster



Management Committees need to be well equipped and have adequate capacity to implement DRR actions.

The scale of available resources is not always sufficient to support all the necessary community and local government initiatives on DRR and CCA. An exploration of potential public-private partnerships for DRR may yield opportunities to increase resource availability with results that are helpful to both public and private sector interests, through both corporate social responsibility funds and public /private investment to protect drivers of growth from disaster risks.

Priority 2: Identify, assess and monitor disaster risks and enhance early warning

Community Risk Assessments combined with national level Multi-Hazard Vulnerability Assessments must be fully integrated into local and national development planning processes. Quality assurance processes in all sectors must ensure that new infrastructure and systems are consistent with the projected impact of climate change and human settlement. Further capacity development to ensure that officials at all levels have access to and understanding of relevant information and utilize modern technologies in their work to reduce risk, enhance resilience and prepare for recovering from disasters is essential.

Early Warning systems, based on a culture of community support and combined with technology has been successful, but must be scaled up. The Government has an important role to play in coordination and ensuring universal coverage of appropriate early warning systems.

Priority 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels

There is a need to provide more comprehensive information at the community level, along with clear action points (what to do, when to do and how to do). Inaccessibility to and ineffectiveness of information dissemination from the local to national levels remains an important aspect of future capacity development efforts. All stakeholders need to continue to address preparedness issues through school-level risk assessment, planning, and response. Gender and DRR perspectives need to be adequately addressed in all curricula and training modules of government and non-government agencies. There is also a strong need to increase coordination between development partners and private sectors to fund empirical and participatory action research at the local and national levels through academia and civil society groups.



Effective communication and engagement strategies to encourage the adoption of disaster and climate resilient behaviours and attitudes among the wider vulnerable populations are still needed. The Government has an important role to play, in future, in shaping public attitudes and behaviours in regards to disaster resilience. Significant further work is needed to create mass awareness of DRR-CCA and school DRR issues, for which more investment is required from the Government, private sector and development partners, including community radios and televisions.

Priority 4: Reduce Underlying Risk Factors

Bangladesh has highlighted that reducing underlying risk factors such as poverty, risk sensitive environment and NRM, critical infrastructure safety, salinity intrusion are the weakest area of HFA (2005-2015) progress. This should be addressed by sustainable development, climate change and disaster risk reduction integration. There are some gaps in addressing some key underlying risk factors- the building code does not yet ensure a reduction in exposure to urban risk for high density populations; there is a lack of data and lastly, a lack of agreed and proven methodologies to address underlying risk factors at the national level .



A collaborative mechanism to coordinate institutional capacity-building inputs including technology, human resources, and financial resources is needed. A universal design considering potential hazards needs to be incorporated into Bangladesh National Building Code (BNBC). GoB safety net programs assisting persons with disabilities need greater emphasis in the planning process to enhance the coping capacity of these most vulnerable groups.

Priority 5: Strengthen Disaster Preparedness for effective response at all levels

Disaster preparedness for floods and cyclones has been effective. Preparedness policies and ways of working were not designed for slow onset disasters or urban risks. This has created a gap in what is otherwise a very strong system. Inadequate human resource capacity, financial resources, and the application of technical resources such as space based technology are also constraints. More detailed planning needs to be conducted within the education and health systems to ensure that disruption is minimized during emergencies, including through the use of schools as shelters. The allocation of resources for preparedness activities and materials needs to be incorporated within the national budget. Problems of risk financing and the

non-existence of risk transfers need to be addressed in DRR mechanisms.

Priorities for HFA2

Continued policy convergence between DRR and development policy

There have been significant achievements in ensuring that all development policy in Bangladesh is seen with a risk lens. This must continue in the next phase of HFA and be broadened to include working with those focused on economic growth to ensure that all drivers of growth are climate and disaster resilient.

Strengthen measurability and enforcement of policies and planning guidelines related to disaster prevention

The great achievements in developing the legislative and policy framework to address the importance of risk reduction now must be capitalised on. This should include developing a robust monitoring and learning framework which can support the implementation of policies and guidelines. This will mean greater commitment to implementation as well as maximising lessons learnt by sharing across government.



Understanding and responding to the differing risks for men and women

The use of gender analysis in policy and practice needs to be greatly improved. There needs to be a move away from an understanding of gender as women's inclusion to an understanding of the role women play in communities prone to disasters in terms of risk reduction. This can be in part achieved through gender audits for all aspects of DRR and implementation of resulting recommendations.

Increased and improved regional cooperation

The trans-boundary nature of many of the disasters facing Bangladesh must be understood and then tackled through regional efforts. Real time data sharing, particularly regarding water management is essential to reduce risks. As persistent and climate induced disasters affect communities cross-border displacement and migration should also be addressed with Bangladesh's neighbours.

Risk reduction for neglected and emerging risks

Accepting a new hazard profile which includes those impacting on rapidly growing urban areas, emergence of slow and persistence disasters and increasing frequency of non-intensive disasters require significant investments. Current projections are that these hazards will leave over 50% of the population exposed to increased risk and vulnerability.



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