



CHANGING THE WAY WE DEVELOP

Dealing with Disasters and Climate Change in Bangladesh

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WHY CHANGE THE WAY WE DEVELOP?

Absolute levels of disaster risk are increasing due to various pressures, including climate change All over the world, impacts of global warming and climate change is already challenging development aspirations. This brief describes the case of Bangladesh, one of the countries most vulnerable to natural disasters and adverse impacts of climate change. As a nation, our priority concern is to progress from our vulnerable state toward a state of climate resilience. Bangladesh showcases what will happen under climate change, and what many countries will need to do to protect themselves in the years ahead.

Disasters affect poor countries and the poor people the most This brief highlights how a nation of 150 million people who are mostly poor prepares to address the impacts of global warming nationally. The idea is to share our experience till date with other countries urgently requiring planning and mobilizing national efforts toward climate resilient development.

Disasters pose a significant and growing threat to development. They challenge prospects for achieving the Millennium Development Goals (MDGs), in particular the target of halving extreme poverty by 2015

National preparedness is critical to develop relevant capacity to mobilize and utilize necessary resource flows, domestic and international. This brief aims to elevate the spirit, will and capacity of vulnerable countries to support each other in preparing to address emerging climate challenges.

Climate Responds to Global Warming – We Face the Challenges

Rapid global warming has caused fundamental changes to our climate. No country and people know this better than Bangladesh, where millions of people are already suffering. This is due to its unique geographic location, dominance of floodplains, low elevation from the sea, high population density, high levels of poverty, and overwhelming dependence on nature, its resources and services. The country has a history of extreme climatic events claiming millions of lives and destroying past development gains. Climate change is making things worse. Sudden, severe and catastrophic floods have intensified and taking place more frequently owing to increased rainfall in the monsoon.



In the last ten years, Bangladesh has been ravaged by floods of catastrophic proportion in 1998, 2004 and 2007. In November 2007, Cyclone SIDR ravaged our coast flattening the Sunderbans on its path of destruction. Heavy downpour over short spell has resulted in landslides. Cold spells claim human lives as well as damage crops. Droughts often affect even coastal districts. Bad weather keeps the coastal waters risky for fishing expeditions. Damages and losses due to climatic extremes like flood, cyclone and drought are phenomenal to the victims as well as the state. These are early signs of rapid global warming. In Bangladesh alone, sea level rise in the coming decades will push over 25 million people to become climate refugees.

The people and social system have knowledge and experience of coping with their effects – to some degree and extent. In a changing climate the pattern of impacts are eroding our assets, investment and future. This applies equally for families, communities and the state. Global warming and climate change threatens settlements and resource and effort of government and people are quickly drained addressing the impact of one event when another hazard strikes. The number of people displaced from their land due to riverbank erosion, permanent inundation and sea level rise is increasing rapidly every year. Global warming and climate change challenges our development efforts, security and the future of generations to come.

Vulnerable countries including Bangladesh must move on in their pursuit to develop and strive as a nation, taking into account their vulnerability, susceptibility and capacity to manage climate risks and adaptation. In this respect, Bangladesh has taken bold steps to prepare and respond to the challenge already on us.

Our hands hold our future. We must secure our well-being and development, utilizing necessary resource and support, both internal and external. By sharing each other's capacity, we can prepare better to address this challenge.



DEALING WITH DISASTERS AND CLIMATE CHANGE

Understanding Challenges

Global warming will continue for many decades, resulting in dangerous consequences for poor countries like Bangladesh, depending on respective vulnerability contexts. Impacts of climate variability, change and extreme events will lead to severe stress on overall development, environment and human well-being, for decades ahead. Understanding the challenges over time is an urgent priority. Also, the challenges need to be explored from an inter-generational perspective. Ultimately, the better we understand, the better we can plan and respond to the challenges effectively. Each country must consider its development and vulnerability contexts, which should include, among other things, its **Geographic Location**, in terms of its position with regard to exposure to sea, confluences of major rivers, its landscape, aridity, floodplains etc., its **Economic Profile, Social Status, Infrastructure, etc.** Bangladesh is addressing this characterization process systematically encompassing all sectors and operational levels. Bangladesh has also initiated the process of analyzing observed climatic parameters, which include climate trends, variability and extreme events.

Responding to Challenges

Sustainable Development is understood as improvement in well-being of people, environment and economy. Development must ensure reducing the risks posed by climate change to people's lives and livelihoods. Development itself serves as a key to adaptation by enhancing resilience and increasing capacity to respond effectively to climatic challenges. On the other hand, adaptation is vital for development and progress and reduces costs of natural disasters. Ultimately, adaptation to climate change requires economy wide planning and regional cooperation. The links between development and adaptation has implications for official development assistance (ODA), both in terms of scale and focus. The following provides a summary of key actions and progress in Bangladesh in its journey towards climate resilient development.

A Climate Change Cell To address current impacts and manage future risks of climate change and variability at all levels in all stages toward a climate resilient Bangladesh, the government has established the Climate Change Cell. The Cell acts as the central focus for the Government's climate change related work, operating as a unit of the Department of Environment. Its objective is to enable the management of long term climate risks and uncertainties as an integral part of national development planning.

The Climate Change Cell has established a mechanism that facilitates management of long term climate risks and uncertainties as an integral part of national development planning. The Cell also facilitates strengthening the capacity of the professionals, practitioners, policy makers to reduce unacceptable risks and improve preparedness for climate change impacts.

Understanding climate risks

To understand climate impacts and risks, some key questions need to be answered: Will these hazards become more frequent and intense? Will their magnitude increase? Which locations are most vulnerable? When will hazards occur? And what shall be possible impacts? For example: A farmer would like to know the likely rainfall patterns while planning his crop calendar, preparing his land, sowing, harvesting, etc. Obviously the development practitioners, professionals and policy makers need to gather this knowledge to provide extension and other services to such primary stakeholders who are at risk.

Awareness Increasing awareness among vulnerable communities, agencies, professionals and practitioners at different levels of activity A comprehensive program to increase the level of awareness is underway. Already, development of education, training and awareness materials as well as their application is underway.

Sharing knowledge through services networking Climate Change Cell compiles, generates, archives and manages data, information and knowledge and provide support and services in making knowledge based decision to all stakeholders. A climate change database and a library archives not only data but also reports and study findings in the arena of the climate change. The website offers a pool of resources, including news on events at home and abroad, progress and achievements.

Adaptation research Climate Change Cell is facilitating key research actions to fill knowledge gaps in addressing adaptation to climate change and its impacts on people's lives and livelihoods; explore new adaptation options for the community to adapt with the impact of climate change; sharing experiences with relevant stakeholders on good practices for adaptation to climate change and variability. So far Bangladesh is promoting saline tolerant rice variety in coastal areas and early maturing rice variety in flashflood prone areas among farmers. Early results are encouraging, demonstrating these as viable adaptation and risk management options. We are struggling to develop drought and flood tolerant rice varieties. With regard to impacts of climate change on health, in particular, incidence of cholera and its management is underway. Bangladesh is also exploring options to establish crop insurance mechanisms.

Cost of impacts and investment needs for adaptation Bangladesh has initiated assessing the cost of climate change on key development sector, and investment needs for adaptation, beginning with water resources.

Climate impact prediction Bangladesh has prepared an institutional road map and business plan for impact prediction modeling in the country. An in-country climate impact modeling centre has been established, which is expected to provide impact scenarios for 2030 and 2050. We are also developing scenarios on floods, droughts and salinity intrusion. Impact scenarios are expected to be available by mid-2008

Meteorological and hydrological information Relevant agencies have stated cooperating and collaborating on climate information. The Met department is already working with water sector agencies. The Disaster Management Bureau, Flood Forecasting and Warning Centre, Cyclone Warning System and Preparedness Programme are working toward a harmonized system to support development planning incorporating climate risks. Substantial work remains with regard to systematic observation and forecasting hazards.

Managing climate risks

Building adaptive capacity to climate change and managing climate risks will be addressed through the mainstreaming of climate risk into sustainable development strategies. To do this successfully requires awareness and understanding of climate change issues. Specific adaptation actions take place at community or individual level. These actions are building on existing coping methods. Communication between communities is enabling coping strategies.

Capacity building and promoting partnerships Climate Change Cell promotes partnership with both government and non-government agencies to service long term and immediate needs. In this respect, a total of 34 focal points have been established in different government agencies, academic institutes, research institutes and organizations. Government officers including the Focal Points have been provided orientation on climate change concerns and responses. The Cell also works with NGOs and other partners addressing different needs at national to local levels. The Cell also promotes partnership between public, NGO, private sectors.

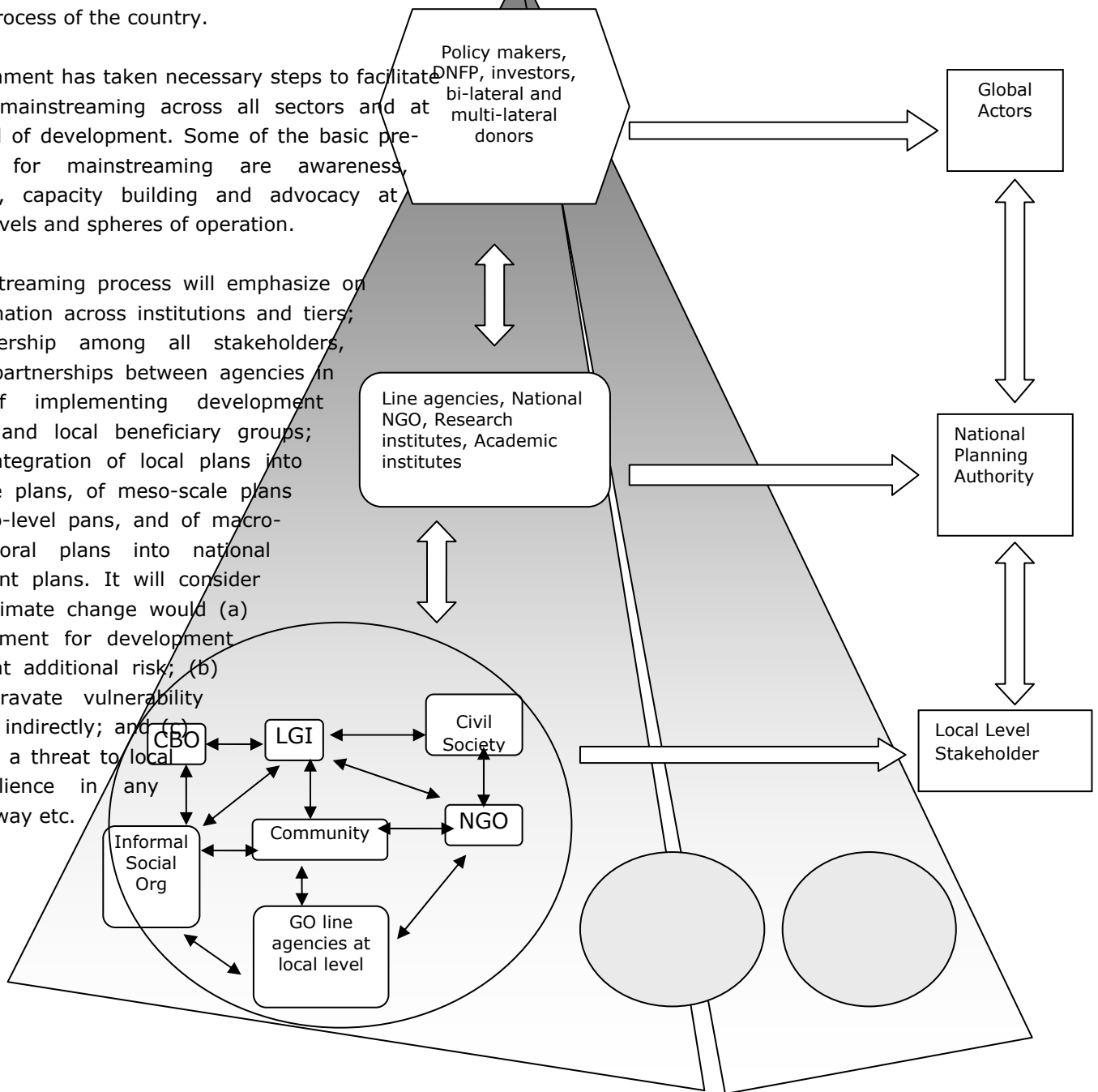


Mainstreaming climate change into development plans and processes

Mainstreaming climate change is to engage in a systematic, comprehensive effort to reduce the negative impacts of climate change through integration into the overall national development and planning process of the country.

The government has taken necessary steps to facilitate achieving mainstreaming across all sectors and at every level of development. Some of the basic prerequisites for mainstreaming are awareness, orientation, capacity building and advocacy at different levels and spheres of operation.

The mainstreaming process will emphasize on (a) coordination across institutions and tiers; (b) partnership among all stakeholders, including partnerships between agencies in charge of implementing development programs and local beneficiary groups; and (c) integration of local plans into meso-scale plans, of meso-scale plans into macro-level plans, and of macro-level sectoral plans into national development plans. It will consider whether climate change would (a) put investment for development activities at additional risk; (b) could aggravate vulnerability directly or indirectly; and (c) could pose a threat to local level resilience in any perceived way etc.



A Country Framework for Climate Resilient Development

Bangladesh has developed a country framework (generic) to ensure national development is resilient to climate change and its impacts in such a way that the lives, livelihood and well being of its people is sustained over time. The objective of this country framework is to facilitate addressing climate risk management and adaptation holistically, practically and systematically in a country setting, thereby enabling development to take into account climate related risks and their management. It will chart a way for Bangladesh to integrate climate risk and adaptation practically. The framework will enable countries to assess and determine the scope and level of adaptation and risk management across different sectors on a continued basis, and over time, at each level of operation. This allows our countries and its development process to address climate challenges holistically in its mainstream – a shift from ad-hoc, and segmented interventions.

A National Climate Change Policy and Action Plan

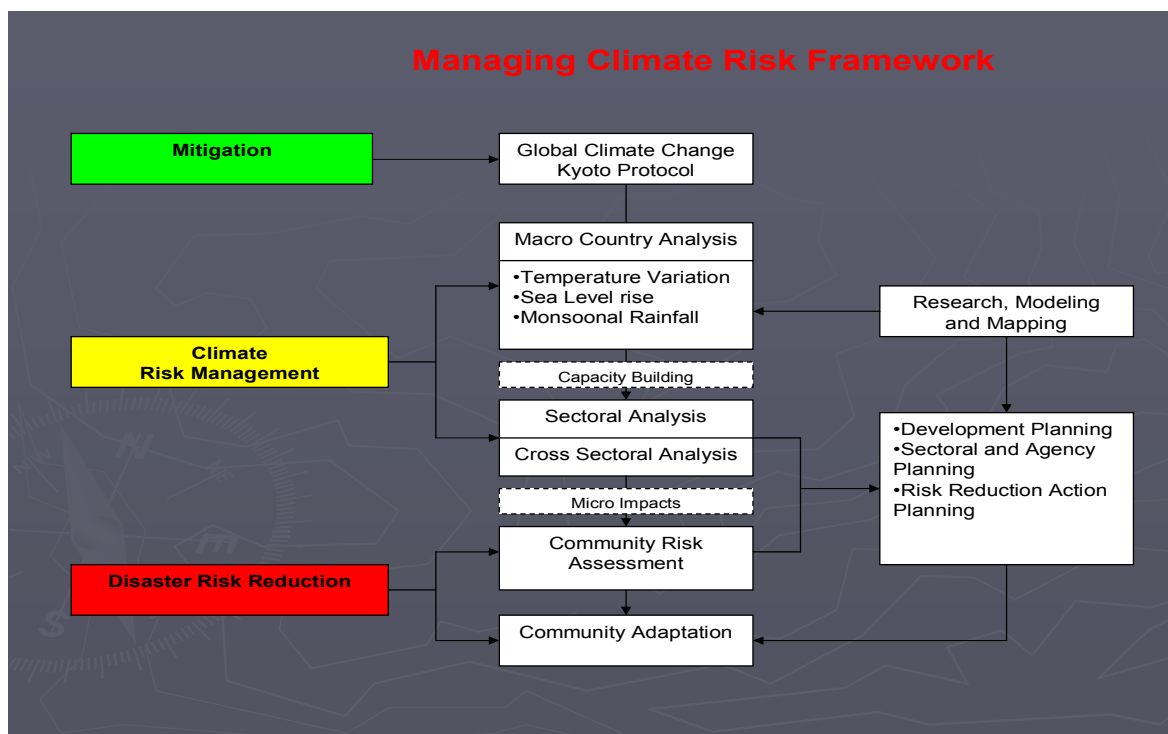
To guide, coordinate and manage all the national and international responses and processes to integrate climate risk into development plans and processes, the government has recently launched the preparation of the Climate Change Action Plan for Bangladesh. This Plan will take a holistic, inclusive and comprehensive approach involving all stakeholders toward understanding climate risks and vulnerabilities and then responding to these through concerned sectors, agencies and stakeholders. The Plan will address the needs and priorities of the country and will come into practice with mainstreaming climate risk management and adaptation using the country framework as an operational tool. This plan will facilitate policy makers to consider concerns specific to sectors, locations and levels of development activities and processes. Side by side the Climate Change Action Plan will facilitate coordination among the country's development partners to address necessary investments to make Bangladesh climate resilient. This plan is to be finalized by 2008, necessary actions are underway.

Disaster risk reduction with climate change adaptation offers a win-win opportunity

Strategies for Disaster risk reduction and adaptation to climate change are being developed and applied. Disaster risk reduction offers opportunities for "bottom-up" strategies for adaptation to current climate variability and climate extremes. In this respect, disaster risk reduction can promote early adaptation to climate risks and impacts.

The **Goal** of Bangladesh's disaster risk reduction policy is **"to contribute to sustainable development through reducing the burden of disasters on the poor and most vulnerable"**. The **Mission** of the Ministry of Food and Disaster management is "to bring a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture and to promote food security as an important factor in ensuring the resilience of the communities to hazards."The poor and communities are vulnerable to all types of risks – natural and climatic. CDMP demonstrates a process through which a country like Bangladesh can integrate and address climate related risks and disasters within a comprehensive management framework. To manage climate risks and adaptation to impacts, the framework builds from the assessment of risks at community level through sector and cross-sectoral analysis and ultimately macro-country analysis of temperature variations, monsoon rainfall, sea level rise, etc.

The National Framework to manage Climate Risks is presented in the diagram below:



National Framework to Manage Climate Risks

SOUTH-SOUTH COOPERATION

Cooperation among and within developing countries will play a critical role in helping each other address climate and disaster risks effectively and comprehensively.

For Bangladesh, regional cooperation is essential to manage climate risks comprehensively. Bangladesh has led the initiative within SAARC countries to address shared concerns through cooperation and collaboration. Climate change is now recognized as a priority concern since the 14th SAARC Summit in April 2007. The 29th Session of the SAARC Council of Ministers during December 2007 adopted the **SAARC Declaration on Climate Change**. The full text of the Declaration is provided in the Box below. As a follow up to the Declaration, a SAARC Minister's Meeting and Expert Meeting on Climate Change is scheduled to take place in Dhaka Bangladesh during 28-29 April 2008.

SAARC Declaration on Climate Change

We, the Foreign Ministers of member states of SAARC are deeply concerned that the adverse impacts of climate change threaten human lives and livelihoods, sustainable development, and the very existence of many developing countries, particularly in South Asia. We believe that climate change is a phenomenon that impacts on the right to development and human security.

The low-lying region and long coastlines of SAARC face serious threats from sea level rise. Our peoples are being adversely impacted, including massive displacements as a consequence of sea level rise, riverbank erosion, droughts, severe storms and cyclones, and permanent inundation. The Himalayan regions also face the catastrophic consequences of accelerated glacial melt, including Glacial Lake Outburst Floods (GLOF).

We believe climate change is a global challenge. There is still an opportunity for mankind to address this challenge. The SAARC member states are determined to contribute to this global effort, in line with the principle of common but differentiated responsibilities. Given our vulnerabilities, inadequate means and limited capacities, we need to ensure rapid social and economic development in our region to make SAARC climate change resilient. Development provides the best form of adaptation. We also believe that developed countries must assume greater commitments in line with their responsibility.

SAARC believes that the way forward must include:

- Adequate resources to tackle climate change without detracting from development funds.
- Effective access to and funding assistance for the transfer of environment-friendly technologies and for adaptation.
- Binding GHG emission reduction commitments by developed countries with effective timeframes.
- Equitable burden sharing.

As we meet in New Delhi, the Conference of Parties of the United Nations Framework Convention on Climate Change (UNFCCC) is taking place in Bali, Indonesia. We believe that the best and most appropriate way to address the threats of climate change is to adopt an integrated approach to sustainable development. We emphasize that the UNFCCC and Kyoto Protocol provide a multilateral framework to address the challenge of climate change. We call upon the international community to honor its commitments.

Adopted by the 29th Session of the Council of Ministers,
7th December 2007

INTERNATIONAL COOPERATION

Bangladesh has demonstrated its commitment and will to represent and voice the concerns of vulnerable countries in all the ongoing international processes to address climate and disaster risks worldwide..

Every country must take pragmatic decisions to protect the well-being of its people. Bangladesh hopes to confront the challenge by preparing better to utilize its capacity and resources optimally. The preparation underway will provide the basis for future planning and investment to make our country climate resilient. It will also facilitate development partners and evolving international mechanisms to assist vulnerable countries systematically.

International support for adaptation to climate change is paramount since links between development and adaptation has implications for official development assistance, in scale as well as focus. Adaptation to climate change will add a massive burden to Bangladesh's budgets and development assistance. In this regard, commitments made already to double international aid flows by 2010 must be delivered. Climate Change Negotiations provide a unique platform for the global community to come together and work towards protecting the global commons and ensuring a common future. It should be re-emphasized that the UNFCCC process and funds are essential to support capacity building, identifying and addressing urgent and immediate priorities.

Key expectation from the global community is that equity is ensured, justice delivered, and commitments are adequate and in time while compensating climate victims, climate refugees, and helping those vulnerable to cope with climate challenges. Climate risk management and adaptation is a survival as well as development concern. The international community should ensure an equitable regime that proactively applies "precautionary" and "no regrets" principles while funding adaptation needs and priorities.

Considering the global warming imperative, the impacts of global warming already taking place and their effects, the strong likelihood of future variability, trends and extreme events, our current vulnerability and capacity, Bangladesh calls for consensus and urgent action to support for the following:

Adaptation considered as a development concern and priority

Adverse climate impacts already have claimed hard earned development gains and benefits in many countries. Adaptation and management of climate risks must be integrated within each country's development and planning process, at every level. The government, development partners and private sector will all need to mainstream climate risk management into their portfolio.

Apply both precautionary and no regrets principles support adaptation funding

Investing in adaptation and climate risk management is not additional, but is essential to safeguard well-being and development gains. The likelihood of climate change related phenomena and events are too high to ignore. National and regional political instability may result from the outcome of adverse impacts if government fails to make development climate proof. Bangladesh is investing time and resources to scope, plan and initiate integration of climate risks and adaptation in its development planning framework and processes. Real need and demand for adaptation and risk management will then eventually surface from the development sector which can be addressed from convention and protocol funds as well as development support and cooperation.

Funding Adaptation Needs and Priorities

Developing countries who are climate change victims have the right to compensation for damages as well as to prepare and reduce the risk through adaptation measures.



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THE COMPREHENSIVE DISASTER MANAGEMENT PROGRAMME (CDMP)

The purpose of Comprehensive Disaster Management Programme of the Government of the People's Republic of Bangladesh and its development partners, Department for International Development (DFID), The European Union (EU) and United Nations Development Programme (UNDP), is **to achieve a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture.** Five strategic focus areas were identified for the Comprehensive Disaster Management Strategy (CDMP) by the Government and donors in order to achieve this paradigm shift in disaster management. They are Capacity building, Partnership development and mainstreaming, Community Empowerment, Research information management and Response management. CDMP represents a contemporary approach with genuine partnerships aimed at making a sustainable difference to the lives of the Bangladeshi people by mainstreaming disaster management into all sectors of the community and the government.

The Climate Change Cell has been established in the Department of Environment under the framework of the Comprehensive Disaster Management Program. The Cell provides the central focus for the Government's climate change related work, operating as a unit of the Department of Environment under the Ministry of Environment and Forests. Its Objective is to enable the management of long term climate risks and uncertainties as an integral part of national development planning. This will contribute to the primary objectives of the wider Comprehensive Disaster Management Programme, which aims to strengthen the capacity of the Bangladesh Disaster Management System to reduce unacceptable risks and improve response and recovery activities.

A major objective of the Climate Change Cell is providing necessary support to the Government in addressing climate change concerns and challenges through capacity development, knowledge management, and mainstreaming climate and disaster risks into development planning, policies and processes.

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