

BANGLADESH

The preparation of the integrated, multi-stakeholder proposal or DRM Action Plan for possible GFDRR funding, was carried out over a nearly 3-month period between March-May 2009. The first round entailed soliciting proposals from different government and non-government entities and concerned donor agencies. In the second stage, these proposals were analyzed by a 3-member team comprising of the Bank's Regional and Country DRM Coordinators and other staff. The third stage included a consultative process involving a range of stakeholders including the Economic Affairs Department, the Ministry of Food and Disaster Management including its various directorates, the Bank's ECRRP Team, and the Comprehensive Disaster Management Program (CDMP) and its present financiers including the UNDP, DFID and EC. However the present proposal is still in draft form and shall be further deliberated upon with the concerned stakeholders in a final consultative round, subsequent to receiving preliminary GFDRR feedback.

1. DISASTER RISK PROFILE

Historical Profile of Natural Disasters in Bangladesh

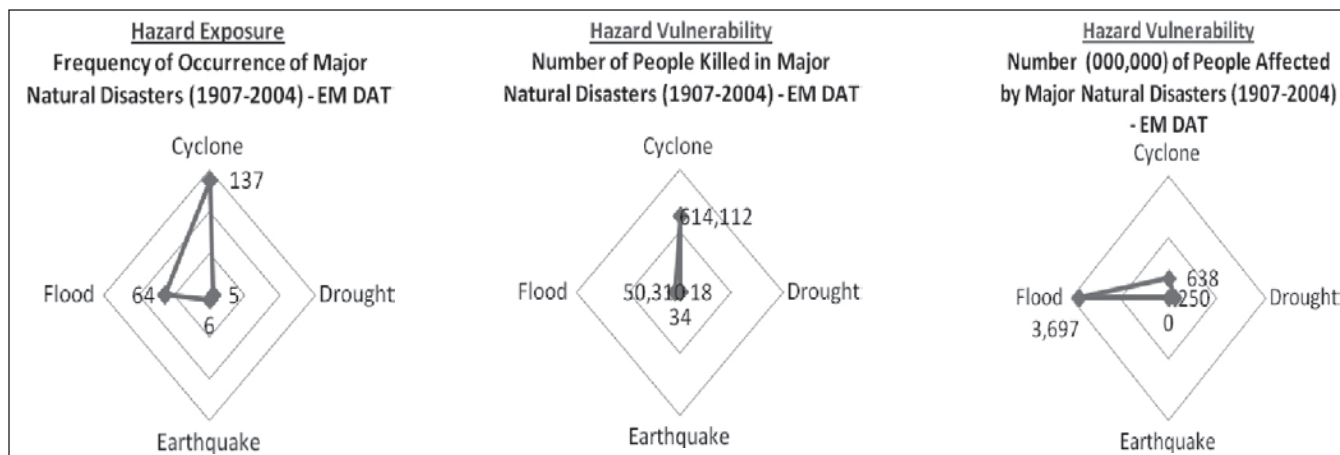
Bangladesh's geographical location and land characteristics make it one of most hazard-prone countries in the world. The country has been frequented by a range of natural hazards throughout its history, including cyclones, floods, droughts, tornadoes and river bank erosion. Other major hazard risks to the country include earthquake, Tsunami, high arsenic contents in ground water, water logging and salinity, etc. Wide-scale flooding has been the most recurring type of disaster striking Bangladesh, and the country remains one of the worst sufferers of cyclonic casualties in the world. The transitional pre- and post-monsoon periods are also frequented by severe local storms and tornadoes. In addition, riverbank erosion affects many people and hectares of land annually. Droughts have also been a common occurrence over the years.

Bangladesh has experienced a number of earthquakes over the past 200 years – between 1869 and 1950, 7 earthquakes ranging between 7.0 to 8.7 on the Richter scale have been recorded in the Bangladesh region. Even though Bangladesh is located in a seismically active and high-risk region, seismic risk awareness, mitigation and reduction has not been mainstreamed into the country's core disaster management agenda and strategy. Not only is there great need for such mainstreaming of seismic risk reduction and mitigation, but for the country to urgently start devising and implementing major preparedness interventions and capacity building efforts.

Bangladesh is currently ranked as the most climate vulnerable country in the world (World Bank 2005). Climate change in particular, is likely to considerably exacerbate Bangladesh's disaster vulnerability. Projections of the Intergovernmental Panel on Climate Change (IPCC) suggest that warmer temperatures will increase both the frequency and intensity of cyclones in the Bay of Bengal. In addition, rapid snow melt in the upper Himalayas coupled with increased peak discharges, would likely increase the depth and spatial extent of flooding in the Ganges-Brahmaputra-Meghna Basin. Added to these risks are the likely consequences of sea level rise, which can cause economic losses of an unprecedented magnitude in Bangladesh's case.

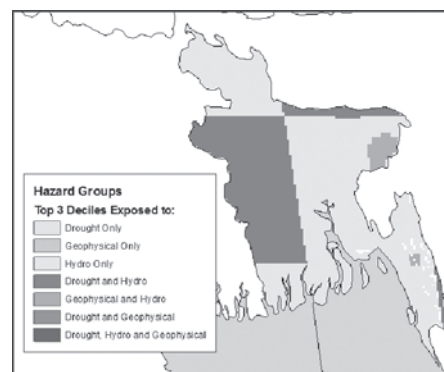
Bangladesh's Exposure and Vulnerability to Hazard Risks

Historically, cyclones and floods have posed the greatest risk to Bangladesh on a country level. The charts below indicate that cyclones have by far been the most recurring and devastating natural hazard in terms of the frequency of their occurrence and their human toll., floods in Bangladesh affect a greater population base than any other natural hazard. The country remains one of the worst sufferers of cyclonic casualties in the world. There have been at least 8 major cyclones since 1965, wreaking huge damages and loss of life – the 1970 and 1991 cyclones caused 300,000 and 140,000 human casualties respectively. The November 2007 cyclone SIDR, although of no less magnitude than some of the earlier cyclones, led to lesser (3,363) casualties, due to among other factors, the much improved state of disaster management in the country.



Moreover, in most years, between 30-50% of the country has been affected by floods. As illustrated by the Hotspots Study by the University of Columbia's Earth Institute, sub nationally, the northern and eastern regions of the country are susceptible to earthquakes while the southeast is particularly vulnerable to all five hazards. The combined multi-hazard maps for mortality and GDP show that Bangladesh ranks in the top 3 deciles of risk when compared to the rest of the world.

The Key Underlying Risk Factors



Deficiencies and Gaps in Implementation of Disaster Preparedness and Risk Reduction Plans (A Case Study of the 2007 Cyclone Sidr) – The country's geographical location and land characteristics overwhelmingly and unmistakably remain the biggest underlying risk factors for Bangladesh. Over time, the country's ability to manage disaster risks, in particular floods and cyclones, has evolved and improved, as a result of a gradual shift from a response-based approach to a strategy that incorporates elements of greater emergency preparedness and risk mitigation. However key deficiencies and gaps remain in the actual implementation of national DRM policies and local risk reduction action plans, as was evidenced in the 2007 SIDR cyclone event. The event highlighted the following unmet needs that continue to remain the key underpinning risk factors for Bangladesh: (a) further strengthening and institutionalizing disaster preparedness, especially among the various sub-national disaster management committees; (b) mobilizing adequate resources for improved local disaster preparedness and response management resources; (c) mainstreaming disaster risk reduction and mitigation across sectors and down to the lower levels of governance, and; (d) taking stock of deficiencies in key risk mitigation infrastructure such as shelters and coastal and river embankments.

Inadequate Attention to Seismic Risks - Even though Bangladesh is located in a seismically active and high-risk region, seismic risk awareness, mitigation and reduction has not been mainstreamed into the country's core disaster management agenda and strategy. This is probably because of the long period of time that has elapsed since the last major earthquake in 1950, but predictions now suggest that a major earthquake might be just around the corner. Hence, there is a need for mainstreaming seismic risk reduction and mitigation in Bangladesh's disaster management strategy and plans, and to start devising and implementing major preparedness interventions and capacity building at various levels.

Lack of Technical and Financial Capacities for Climate Change Adaptation – With the added climate change factor, which is likely to exacerbate the intensity and impacts of floods, cyclones and droughts in particular, there is a need for greater urgency for further improving disaster management and preparedness in the country, including quickly mobilizing substantial additional financial and technical support from the international community and development partners. The up-gradation and modernization of Bangladesh's hazard risk management regime is vital for the country to continue the economic growth it has achieved over the last decades. The Government's PRSP must place even greater emphasis on Disaster Risk Reduction (DRR), along with the cross-sectoral mainstreaming of DRR, in order to be able to achieve the millennium development goals.

2. DISASTER RISK MANAGEMENT FRAMEWORK

Bangladesh's Disaster Management Strategy

The present national strategy for disaster management, although in an early phase of implementation, is based on 3 key elements including:

- Defining and redefining the risk environment, entailing systematic and improved hazard analysis and vulnerability/ community risk assessments; and risk treatment and ranking, including incorporation of climate change impacts;
- Managing the risk environment, including achieving a good balance of risk reduction options; moving from generic hazard to risk specific programs, and; mainstreaming risk reduction across sectors through advocacy, policy and planning reform, and capacity building;
- Responding to the threat environment, including activating systems and mobilizing resources; utilizing vulnerability and risk databases for emergency response planning; and maintaining effective communications and early warning systems

Institutional Structure for Disaster Management

The National Disaster Management Council (NDMC), headed by the Prime Minister, is the highest level forum for the formulation and review of disaster management policies. The Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) is in-charge of implementing disaster management policies and decisions of the NDMC, assisted by the National Disaster Management Advisory Committee (NDMAC). The Ministry of Food and Disaster Management (MoFDM) is the apex institution responsible for coordinating national disaster management interventions across all agencies. The MoFDM comprises of a Central Disaster Management Bureau (DMB), Director General Food, Directorate of Relief and Rehabilitation (DRR) and a Cyclone Preparedness Program Implementation Board (CPPIB). In addition, various other committees are tasked with coordination functions, dissemination of warning signals and training and public awareness building. Moreover, at the sub-national level, disaster management committees are functioning at the district, upazila, union, pourashava (municipal), and city corporation levels, tasked with coordinating and reviewing disaster management activities in their respective jurisdictions.

Presently Articulated National Priorities for Disaster Management

The Draft National Plan for Disaster Management (NPDM, 2007-15), is an umbrella plan attuned with the achievement of disaster management goals and priorities set out in the HFA (2005-15) and the SFA (2006-15). The Plan is to be used for: (a) articulating the long-term strategic focus for disaster management in Bangladesh; (b) acting as national driver for change broadly aimed at disaster risk reduction and climate change adaptation, and; (c) providing a roadmap for the development of disaster management plans by various lower level entities.

The NPDM is centered around the following strategic priorities and goals: (i) professionalizing the present disaster management system; (ii) mainstreaming disaster risk reduction; (iii) strengthening institutional mechanisms for disaster management; (iv) empowering at-risk communities; (v) expanding risk reduction programming across all sectors and all hazards; (vi) strengthening emergency response systems, and; (vii) developing and strengthening networks for disaster management.

Further, the NPDM calls for the development and implementation of district, upazila, union, and paurashava/city corporation disaster management plans, and also lays out specific requirements to be addressed by these multi-tier plans. It also mandates the development of sectoral development plans incorporating disaster risk reduction, and hazard-specific multi-sectoral disaster management plans.

Priorities for Climate Change Research, Capacity Building and Adaptation

Under its strategic goal for expanding risk reduction programming, the NPDM provides an elaborate framework for 'establishing an integrated approach to disaster management, including climate change and climate variability impacts'. Key priorities identified vis-à-vis climate change include: (a) establishing and capacitating the Climate Change Cell (CCC) within DOE; (b) developing scenario and prediction models; (c) conducting research and strengthening knowledge on climate change and climate variability impacts; (d) identifying climate change adaptation options through action research; (e) incorporating climate change and climate variability impact information in DRR programs and strategies, and ; (f) designing and implementing capacity building programs to improve and enhance multi-stakeholder understanding of climate change impacts.

3. INTEGRATION OF DRM IN DEVELOPMENT STRATEGIES

Integration of DRM in National Policies and Linkages with International Conventions

Bangladesh's Poverty Reduction Strategy Paper (PRSP) provides for strengthening disaster management and risk reduction, mainstreaming DRR into national policies and developmental processes, and enhancing community capacity for disaster preparedness and risk reduction. Further, the Draft National Plan for Disaster Management (NPDM, 2005-15), is aligned with the objectives and priorities for action identified under various international conventions, such as the Hyogo Framework for Action (HFA, 2005-15), the United Nations Framework Convention on Climate Change (UNFCCC) and particularly, the SAARC Framework for Action (SFA, 2006-15). The NPDM has already been approved by, and incorporates the feedback of: (a) a dedicated MoFDM committee; (b) a wider stakeholder group comprising of government and non-governmental organizations and academic institutions; (c) relevant government ministries and departments; and lastly; (d) the IMDMCC. In the light of IMDMCC comments and decisions, the draft was further revised and prepared for Cabinet consideration and approval.

The Bank's Shifting Focus from Disaster Response to DRM Financing

Although the Bank's Country Assistance Strategy (2006-2009) supports the PRSP's broader objectives, specially towards strengthening local governance and community social safety nets, it currently falls short of specifically supporting the country's conscious shift towards the mainstreaming of DRM considerations in its developmental planning. The Bank's engagement in the disaster arena in Bangladesh has typically remained response-based, with a number of Emergency Recovery Loans in the wake of frequent floods and cyclones. However the Bank's 2008 cyclone Sidr response is marked by a full acknowledgement of the country's DRM needs through the development of a medium to long term (15-year) strategic plan of action for strengthened disaster risk reduction and mitigation under the Joint Damage, Loss and Needs Assessment (JDLNA).

DRM Interventions under the ECRRP – Physical implementation of the above plan began with a support of US\$ 8 million extended towards DRM institutional capacity building and strengthening disaster preparedness under the Emergency Cyclone Recovery and Rehabilitation Project (ECRRP). This DRM strategy is structured along the Bank's international DRM strategic framework, while the ECRRP specifically supports 3 pillars of this framework including: (i) hazard risk identification and assessment; (ii) strengthening and enhancing emergency preparedness, and; (iii) institutional capacity building related to DRM. These entail structural and non-structural interventions both generally at the national and local levels, including: (a) capacity Building of the Disaster Management Bureau (DMB); (b) support towards a Detailed National-level Multi-Hazard Risk and Vulnerability Assessment, Modeling and Mapping, and; (c) strengthening and enhancing emergency preparedness in 12 severely cyclone affected districts.

The ECRRP also includes subprojects for physical risk mitigation, including river and coastal embankment improvement, new disaster shelters, and upgradation of the rural road network. It also provides for studies for establishing a disaster management response fund/facility and potential for buying catastrophe risk coverage.

Other Ongoing DRM Technical Assistance and Economic Sector Work – The Bank is currently carrying out economic sector work and technical assistance in the following areas: (a) decentralized disaster management and local governance; (b) an agricultural risk insurance feasibility study (GFDRR-funded); (c) ESW on implications of climate change on food security, and; technical assistance towards improving Bangladesh's response and recovery activities in the aftermath of disasters.

4. KEY DONOR ENGAGEMENTS

The national disaster management institutional apparatus above has collaborative linkages with a host of technical and scientific organizations, such as the Flood Forecasting and Warning Centers (FFWCs), Bangladesh Meteorological Department (BMD), Center for Environmental and Geographical Information Services (CEGIS), Institute for Water Modeling (IWM), and the Space Research and Remote Sensing Organization (SPARRSO).

A number of International Financing Institutions, multilateral and bilateral donor agencies are supporting disaster management and risk mitigation interventions in the country. The Disaster Emergency Response Group (DER) is a forum for information sharing, composed of government representatives, donor agencies and the NGO community.

The Comprehensive Disaster Management Programme (CDMP), under the auspices of the DMB, is undertaking a number of interventions aimed at strengthening and improving disaster management and risk mitigation capacities at various levels, and in promoting and implementing the national strategic priorities and plans set out by the Government. It is funded by

DFID, UNDP and the EC. The CDMP Phase I has effectively been under implementation since late 2005 and is scheduled to be completed by December 2009. The program has started to make significant contributions in the areas of:

- capacity building and professionalizing disaster management;
- partnership development including advocacy for mainstreaming disaster risk reduction and for expanding risk reduction across a broader range of hazards;
- community empowerment, community risk assessments (CRA) and community risk reduction programs funded through the Local Disaster Risk Reduction Fund (LDRRF);
- research and information management on earthquake and Tsunami preparedness and capacity building on climate change risk management;
- strengthening response management through the establishment and strengthening of Disaster Management Information Centers and a Disaster Management Information Network;

The CDMP has met with particular success in implementing CRAs, community-level Risk Reduction Action Plans and small scale risk mitigation interventions funded through the LDRRF in seven pilot districts. Phase II of the CDMP shall be able to scale-up these activities in additional program districts. In other areas, the CDMP has yet met with partial success, but is steadily moving towards achieving its strategic objectives, as per the program's mid-term evaluation report.

5. GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY (GFDRR): ACTION PLAN

The preparation of the integrated, multi-stakeholder proposal or DRM Action Plan for possible GFDRR funding (Refer Table 1), was carried out over a nearly 3-month period between March-May 2009. The first round entailed soliciting proposals from different government and non-government entities and concerned donor agencies. In the second stage, these proposals were analyzed by a 3-member team comprising of the Bank's Regional and Country DRM Coordinators and other staff. This required an assessment of these proposals in respect of: (a) their relevance to the national and local contexts and DRM capacities, including their potential for addressing and mitigating the underlying risk factors for the country (refer sub-sections 5.6,& 7); (b) their relationship with, and leveraging potential for furthering the objectives of, the various existing national strategies, priorities and action plans in respect of improved DRM and strengthened disaster preparedness; (d) addressing present gaps in DRM interventions and avoiding duplications (although some overlaps are unavoidable in the country environment), and; (e) their responsiveness to the lessons learnt and gaps and weaknesses identified in recent disaster responses (refer sub-section 5).

The third stage included a consultative process involving a range of stakeholders including the Economic Affairs Department, the Ministry of Food and Disaster Management including its various directorates, the Bank's ECRRP Team, and the Comprehensive Disaster Management Program (CDMP) and its present financiers including the UNDP, DFID and EC. However the present proposal is still in draft form and shall be further deliberated upon with the concerned stakeholders in a final consultative round, subsequent to receiving preliminary GFDRR feedback.

Rationale for Selection of Proposed Activities

Selection Criteria and Expected Results – Following from above, the criteria used for selection of proposals towards the development of the proposed action plan, include: (a) relevance in addressing and mitigating underlying risk factors for the country; (b) leveraging potential for future DRM interventions; (c) potential for furthering national DRM priorities developed

in harmonization with the agreed priorities for actions under the Hyogo Framework for Action (HFA 2005-15); (d) meeting the challenge of increased DRM activity synchronization and synergy-building across various donor/IFIs, thereby improving the quality and effectiveness of donor aid in the DRM arena; (e) deepening and widening the association of the Bank with other players (particularly the UN) and among other players in the DRM area ; (f) fostering, deepening and widening DRM partnerships between the Bank, government and other donors, and; (g) ease and pace of activity implementation.

Reasons for Non-Selection of Some Proposals –The non-selection of some proposals was based on grounds of: (a) lack of clear objectives or potential for strategic impact; (b) duplications with existing or already funded planned activities, and; (c) availability of other more readily accessible funding mechanisms, such as climate change adaptation related proposals which can be funded through Bangladesh’s Multi-Donor Trust Fund of Climate Change, the Government’s own fund on climate change and various other funding windows.

GFDRR Guidance Request – As per earlier GFDRR guidance, some of the proposed activities are likely to be executed by the government or other players such as the UNDP. One proposal for contributing to the donor resource pool of the CDMP requires more clarity from the GFDRR over the various implementation modalities, particularly the issue of procurement methods and guidelines to be followed in such scenarios. For the time being, the proposed activity has been kept flexible with possibilities for both pool-funding or funding of a discrete set of Phase-II activities under the CDMP.

Indicative new program areas and projects for GFDRR funding	Partnerships	Indicative Budget and Duration	HFA activity area(s)
<p>1. Policy Advice, Technical Assistance and International/Regional Experience Sharing for: (A) the Conceptualization of a National Disaster Management Authority; (B) Enhancing the Institutional Coordination, Monitoring and Oversight Capacities of the Ministry of Food and Disaster Management in respect of the multitude of DRM related activities and interventions (ongoing and planned) by various partners and stakeholders, and; (C) Conducting a Feasibility Study for the Establishment of a National Emergency Operations Centre</p>	<p>Ministry of Food and Disaster Management</p>	<p>\$1,500,000 3 years</p>	<p><u>Priority Area 1</u>: Ensuring that DRR is a national priority with a strong institutional basis for implementation. <i>Sub-Priority (i)</i>: National Institutional and Legislative Frameworks</p>
<p>2. Training and Capacity Building of a National Volunteers Force for supporting Multi-Hazard Emergency Response Management. This program will broadly following the operating model of existing and very successful Cyclone Preparedness Program which is co-financed and co-managed by the Government and the Red Crescent Society. The proposed intervention shall scale-up this model to include training and building of a volunteers force for multi-hazard response management in other hazard-prone districts in the areas of: (A) Search and Rescue; (B) Evacuation; (C) First Aid Provision, and; (D) Emergency Communications and Community Early Warning Systems</p>	<p>DMB, Directorate of Relief and Rehabilitation (DRR), Red Crescent Society, and Local Governments including District, Upazilla and Union Governments</p>	<p>\$ 2,900,000 3 years</p>	<p><u>Priority Area 1</u>: <i>Sub-Priority (iii)</i>: Community Participation; Strategic Management of Volunteer Resources <u>Priority Area 3</u>: Use knowledge, information and education to build a culture of safety and resilience at all levels <i>Sub-Priority (ii)-I</i>: Promote community based training initiatives, considering the role of volunteers.</p>

Indicative new program areas and projects for GFDRR funding	Partnerships	Indicative Budget and Duration	HFA activity area(s)
<p>3. Vulnerability Reduction of Health Facilities in Disaster Prone Districts. This shall involve scaling up of the Ministry of Health's (with USAID and ADPC) existing structural vulnerability program to focus on: (A) Detailed Structural Vulnerability Assessments of Health Facilities in Prioritized Multi-Hazard Prone Districts and Development of Retrofitting Techniques for Enhancing Building Safety; (B) Incorporation of DRM Considerations in the Design and Planning of Future Health Facilities, including development of district and local capacities in this respect, and; (C) Capacity Building of Key Health Staff in Disaster Prone Districts in Health Emergency Response Management, Provision of Life-Saving Equipment, and Training/Skill Development in life-saving operations/techniques including the use of such equipment in disaster events</p>	Ministry of Health, APDC	\$ 2,400,000 3 years	<p><u>Priority Area 2:</u> <i>Sub-Priority (i):</i> National and Local Risk Assessments</p> <p><u>Priority Area 4:</u> Reduce the underlying risk factors <i>Sub-Priority (ii)-E:</i> Integrate disaster risk reduction into the health sector, promoting the goal of "hospitals safe from disaster", by increasing their level of resilience, and implementing mitigation measures to reinforce and strengthen their capacity to remain functional in disaster situations.</p>
<p>4. Urban Vulnerability Reduction - Knowledge Sharing, and Development of Investment and Implementation Options. This shall be implemented in three 3 Major Urban Center, building upon the Risk Exposure and Structural Vulnerability Assessments carried out by CDMP under Phase-I. This activity will support: (A) Visits by International DRM Practitioners to Major Cities for development of Risk Mitigation Investment Options, and Exposure Visits for Local City Management Officers to Mega Cities where such mitigation options have been implemented; (B) Mainstreaming of DRM Considerations and Interventions in the City Investment Planning Processes; (C) Carrying out an assessment of strengths, gaps and weaknesses in the city/urban search and rescue capacities in respect of both natural and man-made hazards – also based on a comparison between present municipal and urban risk management action plans and the implementation capacities and systems of the respective cities.</p>	CDMP, DMB City Corporations	\$ 1,500,000 1 year	<p><u>Priority Area 4:</u> Reduce the underlying risk factors <i>Sub-Priority (iii)-N:</i> Incorporate disaster risk assessments into urban planning and management of disaster prone human settlements, in particular highly populated areas. <i>Sub-Priority (iii)-O:</i> Mainstream disaster risk considerations into planning procedures for major urban infrastructure projects. <i>Sub-Priority (iii)-R:</i> Encourage the revision of existing or the development of new building codes, standards, and rehabilitation and reconstruction practices.</p>

(Cont.)

Indicative new program areas and projects for GFDRR funding	Partnerships	Indicative Budget and Duration	HFA activity area(s)
<p>5. Support to the Comprehensive Disaster Management Program (a program under the auspices of the MoFDM and Disaster Management Bureau, and currently financed by UNDP, DFID and EC). This program supports: (a) capacity building and professionalizing disaster management at various levels; (b) partnership development including advocacy for mainstreaming disaster risk reduction; (c) community empowerment, community risk assessments (CRA) and community risk reduction programs; (d) research and information management on earthquake and Tsunami preparedness and capacity building on climate change risk management, and; (e) strengthening response management through the establishment and strengthening of a Disaster Management Information Network;</p>	<p>MoFDM, DMB, CDMP, UNDP, EC, DFID</p>	<p>\$ 6,000,000 3 years</p>	<p>Priority Area 1: <i>Sub-Priority (i):</i> National Institutional and Legislative Frameworks <i>Sub-Priority (iii):</i> Community Participation Priority Area 2: <i>Sub-Priority (i):</i> National and Local Risk Assessments Priority Area 3: <i>Sub-Priority (i):</i> Information Management and Exchange <i>Sub-Priority (ii):</i> Education and Training Priority Area 5: <i>Sub-Priority (a):</i> Strengthen policy, institutional and technical capacities for disaster management <i>Sub-Priority (b):</i> Support exchange of information across risk reduction and development agencies</p>
Total Indicative Budget - GFDRR Funding Request		US\$ 14.3 Million	

ANNEX 1

Donor Engagements and Plans for Medium to Long-term Disaster Risk Mitigation in Bangladesh
(Developed under the 2008 Cyclone SIDR JDLNA)

Strategy Pillar:	Planned Activities	Existing and Probable Development Partners	Indicative Timeframe		
			2008-12	2013-17	2018-22
I. Risk Identification and Assessment	(i) Detailed, National Level Multi- Hazard Risk and Vulnerability Assessment & Modeling	WB/GFDRR, UNDP, Others			
	(ii) Supporting Community Risk Assessments at the District, Upazila and Union Levels	UNDP, DFID, CDMP			
II. Strengthening and Enhancing Emergency Preparedness	(i) Disaster Forecasting and Warning	JICA, EC, CDMP			
	(ii) Construction of New, and Rehabilitation of Existing, Disaster Shelters	WB, ADB, JICA/JBIC, IDB, Kuwait, Saudi, and OPEC Funds			
	(iii) Strengthening and institutionalizing disaster preparedness	UNDP, DFID, CDMP			
	(iv) Strengthening Local Communication Systems and Sustained Public Awareness and Sensitization Campaigns	WB, CDMP, IFRC			
III. Institutional Capacity Building	(i) Establishing a Bangladesh Institute for Disaster Management Training	UNDP, DFID, CDMP			
	(ii) Professionalizing the Present Disaster Management Institutions	UNDP, CDMP			
	(iii) Building DMB Capacity for Damage, Loss and Needs Assessments	WB, ADB, UNDP, CDMP			
	(iv) Mainstreaming disaster risk reduction and mitigation across sectors	UNDP, CDMP			
	(v) Fostering National-level Public-Private Partnership Forums	WB, ADB, UNDP, CDMP			
IV (a). Risk Mitigation Investments	(i) River Bank Protection Improvement Program	WB, ADB, Dutch Govt.			
	(ii) Coastal Embankment Improvement Program	WB, ADB, Dutch Govt.			
	(iii) Program for upgrading the Standards of Construction for Roads	WB, ADB, JICA/JBIC, Others			
	(iv) Forestation of Coastal Belt	WB, ADB, Others			
	(v) Sundarbans restoration and improvement	WB, ADB, Dutch Govt., Others			
	(vi) Gorai River Restoration Program	WB, ADB, Dutch Govt., Others			
IV (b). Climate Change Risk Mitigation and Adaptation	(i) Capacitating and Strengthening the Climate Change Cell (CCC) within DOE	DFID, UNDP, CDMP			
	(ii) Developing climate change and climate variability scenario and prediction models	DFID, UNDP, CDMP			
	(iii) Conducting research and strengthening knowledge on climate change and climate variability impacts	DFID, UNDP, CDMP, Others			
	(iv) Identifying climate change adaptation options through action research	DFID, UNDP, CDMP			
	(v) Incorporating climate change and climate variability impact information in DRR programs and strategies	DFID, UNDP, CDMP, WB, ADB, JBIC/JICA, Others			
	(vi) Designing and Implementing capacity building programs to improve multi-stakeholder understanding of climate change impacts.	DFID, UNDP, CDMP, Others			
V. Introducing Catastrophe Risk Financing	(i) Establishment of Disaster Response Fund	GOB, IFIs, UN, Bilateral Donors			
	(ii) Catastrophe Risk Financing of Rare Events	GOB, WB, GFDRR, ADB			