

**GOVERNMENT OF THE PEOPLE'S REPUBLIC
OF BANGLADESH**

BANGLADESH COUNTRY REPORT

JUNE 2004

**National Report and Information on Disaster Reduction
For the World Conference on Disaster Reduction
Kobe-Hyogo, Japan
January 18-22, 2005**

Prepared by

**Ministry of Food and Disaster Management
In Concert with Disaster Risk Reduction Stakeholders**

Preface

The Bangladesh Country Report has been prepared by the Ministry of Food and Disaster Management (formerly the Ministry of Disaster Management and Relief) under the guidance of Mr. Faruq Ahmed, Secretary-in-Charge, Ministry of Food and Disaster Management. Contributions to the report were offered by the Director Generals and senior staff from the Disaster Management Bureau and the Directorate of Relief and Rehabilitation and the staff of the Bangladesh Disaster Preparedness Center and the Comprehensive Disaster Management Programme.

Consultation was also held with representatives from the Planning Commission, Ministries/Divisions including Water Resources, Environment and Forest, Housing and Public Works and Armed Forces Division and government and non-governmental organizations including the Bangladesh Meteorological Department, Space Research and Remote Sensing Organization, Bangladesh Red Crescent Society, Institute of Water Modeling and the Flood Forecasting and Warning Center to provide a broad, multi-sectoral overview on disaster reduction in Bangladesh.

The Government of the People's Republic of Bangladesh is committed to the task of moving the disaster management emphasis in Bangladesh from a relief and response focus to a broader and more encompassing risk management framework. This task can only be achieved through a comprehensive approach that unites the Government, non-governmental organizations, the community, the private sector and global and regional partners in a joint strategy for effective risk reduction.

Thus, Bangladesh is devoting considerable attention and interest to the preliminary work in preparation for the World Conference on Natural Disasters to be held in Kobe, Japan in January 2005.

Chowdhury Kamal Ibne Yusuf, M.P.
Minister, Ministry of Food and Disaster Management

BANGLADESH COUNTRY REPORT

Component 1: Political Commitment and Institutional Aspects

1.1 Are there national policy, strategy and legislation addressing disaster risk reduction?

The vision of a poverty focused disaster management program in Bangladesh (Bangladesh country profile is given in Annex 1) is to reduce the vulnerability to natural, environmental and human induced hazards through community empowerment and integration of sustainable risk management initiatives in all development programs and projects. This vision would be achieved by a multi-hazard and multi-agency approach to address vulnerability, risk assessment and mitigation that include prevention, preparedness, response and recovery. The vision considers a transition from a response and relief focus to vulnerability and risk reduction approach in disaster management.

The Ministry of Food and Disaster Management (formerly the Ministry of Disaster Management and Relief) of the Government of Bangladesh has responsibility for coordinating the government disaster management efforts. The core functions for the fulfillment of this task are outlined in the allocation of business of the Ministry under the Government's Rules of Business. Standing Orders have been developed that detail the preparedness, response and recovery mechanisms of key stakeholder agencies in responding to an immediate crisis.

The immediate objectives of the current disaster management programmes of Ministry of Food and Disaster Management (MFDM) are to:

- Minimize the loss of lives and properties during disaster through implementation of risk reduction strategies;
- Build capacity and strengthen national institutions for disaster management with emphasis on preparation of action plans and guidelines;
- Enhance professional skills and knowledge of key personnel of the MFDM on risk reduction, preparedness, warning and forecasting system and post-disaster activities;
- Undertake structural mitigation measures including construction of rural infrastructure, shelter and communication facilities in the high-risk areas;
- Promote measures to create employment opportunities throughout the year for poverty in the disaster prone areas.

Strategy

The government acknowledges the need for disaster risk as opposed to the earlier concepts of responding after a disaster, as a necessary as well as a cost-effective approach. Thus priority has been accorded to focus on community level preparedness, response, recovery and rehabilitation. Programme to train people living in disaster prone areas for improving their capability to cope with natural disasters is highlighted. The Draft National Policy on Disaster Management has emphasized a group of broad-based strategies:

First: disaster management would involve the management of both risks and consequences of disasters that would include prevention, emergency response and post-disaster recovery.

Second: community involvement for preparedness programmes for protecting lives and properties would be a major focus. Involvement of local government bodies would be an essential part of the strategy. Self-reliance should be the key for preparedness, response and recovery.

Third: non-structural mitigation measures such as community disaster preparedness, training, advocacy and public awareness must be given a high priority; this would require an integration of structural mitigation with non-structural measures.

What is needed in Bangladesh is a more holistic and comprehensive approach, wherein the processes of hazards identification, vulnerability analysis, prevention, mitigation, preparedness, coordinated response and recovery efforts are planned and undertaken contiguously with a risk management context. A draft national policy and legislation is under process to place before the parliament.

1.2 Is there a national body for multi-sectoral coordination and collaboration in disaster risk reduction, which includes ministries in charge of water resource management, agriculture/land use and planning, health, environment, education, development planning and finance?

There are three bodies for multi-sectoral coordination and collaboration at the national level. The National Disaster Management Council (NDMC) is headed by the Prime Minister and has 30 members including Ministers and permanent Secretaries of ten concerned ministries and the Chiefs of Staff of the defense services. Its responsibilities include both policy direction and the highest level of national coordination. The cabinet Minister in charge of the Ministry of Food and Disaster Management (MFD) chairs the Inter Ministerial Disaster Management Coordination Committee (IMDMCC). The committee has 30 members including permanent Secretaries of twenty ministries concerned with disaster management and risk reduction. The committee has specific responsibilities to be performed before, during and after disasters. Lastly, is a National Disaster Management Advisory Committee (NDMAC) with memberships drawn from both the public and private sectors. Detail responsibilities of these three committees are described in Annex 2.

The detailed composition, structure and responsibilities of the following three national level committees are provided below:

National Council /Committee	Chairperson	Key ministries/agencies
National Disaster Management Council (NDMC)	Prime Minister	Planning Commission, Ministries of Water Resources, Finance and Planning, Health and Family Welfare, Agriculture, Home Affairs, Defense, Local Government and Cooperatives, Roads and Railways, Shipping, Armed Forces Division and Food and Disaster Management
Inter-Ministerial Disaster Management and Coordination Committee (IMDMCC)	Minister, Ministry of Food and Disaster Management	Principal Secretary to the Prime Minister, Member (Programming), Planning Commission, Secretaries from the Ministry of Foreign Affairs, Agriculture, Defense, Water Resources, Education, Information, Housing and Public Works, Power, Energy and Mineral Resources, Civil Aviation and Tourism, Fisheries and Livestock, Posts and Telecommunication, Environment and Forests, Food and Disaster Management, Finance, Local Government Division, Home Affairs, Roads and Railways, Shipping, Health and Family Welfare, Principal Staff Officer of the Armed Forces Division, Director General NGO Affairs Bureau, Director General, Disaster Management Bureau, Director General Relief and Rehabilitation and the Secretary General, Bangladesh Red Crescent Society. ¹
National Disaster Management Advisory Committee (NDMAC)	Disaster Management Specialist nominated by Prime Minister	Members of Parliament elected from disaster prone areas. Experiences person from Government agencies, University, NGOs, donor organizations and other agencies in the field of water resources, meteorology, seismographic engineering, physical infrastructure planning, social anthropology, education, disaster management.

1.3 Are there sectoral plans or initiatives that incorporate risk reduction concepts into each respective department area (such as water resource management, poverty alleviation, climate change adaptation, education and development planning)?

Development planning in Bangladesh, where vulnerability to natural and environmental hazards must be taken into account, has addressed risk reduction into some sectoral plans. For example, extensive river flooding causes disruption and damage to infrastructure, agriculture and livelihood. The National Water Management Plan underlines the importance of implementing effective non-structural measures to reduce the impact of floods and erosion. Recent policies and plans have recognized the

¹ Refer to the Government of the People's Republic of Bangladesh Standing Orders on Disaster, Ministry of Disaster Management and Relief, Disaster Management Bureau, August 1999.

importance of participatory planning that focuses on sustaining people's livelihood. Drought induced famine, global warming, cyclonic storms and other hazards have required Government to factor in strategic planning into the national development cycle. The National Environment Management Action Plan (NEMAP) takes into account the disaster management and risk reduction as a vital component and need. The Integrated Coastal Zone Management (ICZM) program has built-in components to address risk reduction. However, there remains a need to create a holistic and comprehensive risk reduction culture within national policies and strategies for disaster risk reduction. The Ministry of Food and Disaster Management's Comprehensive Disaster Management Programme shall begin to develop and strengthen human and institutional capacities, increase public participation in risk reduction activities and educate policy makers to achieve a wider acceptance of disaster risk reduction concepts to address national and human development problems.

1.4 Is disaster risk reduction incorporated into your national plan for the implementation of the UN Millennium Development Goals (MDGs), Poverty Reduction Strategy Paper (PRSP), National Adaptation Plan of Action, National Environmental Action Plans and WSSD (World Summit on Sustainable Development) Johannesburg Plan of Action?

Disaster risk reduction has been incorporated into the Interim Poverty Reduction Strategy Paper (I-PRSP)² as Annex 9 Disaster Vulnerability and Risk Management. The Government strategy acknowledges that disaster management would involve the management of both risks and consequences of disasters that would include prevention, emergency response and post-disaster recovery. It is expected that the final PRSP, known as Medium-Term Macro-Economic Framework (MTMF), will dwell at length on these issues and devise a plan of action. The risk reduction approach has not yet reached the point of becoming mainstreamed in the development process. The National Environment Management Action Plan (NEMAP) formulation process has, however, encompassed disaster risk reduction. The National Adaptation Plan of Action (NAPA) is in the process of development by representatives of the scientific community under the leadership of the Ministry of Environment and Forest. Bangladesh is represented at the United Nations Framework Convention on Climate Change forums. The NAPA will focus attention on three impacts associated with climate change: increasing sea-level rise, changing rainfall patterns, and increases in the frequency and intensity of extreme events. In the World Summit on Sustainable Development, the Bangladesh delegation, lead by the Minister of Finance and Planning, called for greater support from developed nations to address critical issues hindering the economic and social development of the less developed nations.

² A National Strategy for Economic Growth, Poverty Reduction and Social Development. Economic Relations Division, Ministry of Finance, Government of the People's Republic of Bangladesh. January 2003. This document provides, *inter alia*, a framework for achieving the Millennium Development Goals (MDGs).

1.5 Does your country have building codes of practice and standards in place, which takes into account seismic risk?

The National Building Code was formulated and published in 1993. Bangladesh does not have any separate code for the design or construction of earthquake resistant structures. However, a new seismic zoning map and detailed seismic design provisions were incorporated into the National Building Code in 1993 that replaces the code prepared in 1979. The Bangladesh Earthquake Society has recently published a Bengali translation of the Guidelines for Earthquake Resistant Non-Engineered Construction, written by the International Association of Earthquake Engineering³. The enforcement of the standards presented in the National Building Code requires close monitoring by concerned agencies. The shortage of trained staff to monitor new construction impedes the effectiveness of the building standards.

1.6 Do you have an annual budget for disaster risk reduction?

The Ministry of Food and Disaster Management receives an annual government budget to operate a Secretariat, the Disaster Management Bureau and the Department of Relief and Rehabilitation that includes both field and headquarters staff. The national budget provides for block allocation for the Ministry to deal with disaster related activities. In addition, the government allocates fund specific projects to the subject under annual development programme. The national budget also includes a government contribution to donor-supported disaster management risk reduction initiatives.

1.7 Are the private sector, civil society, NGOs, academia and media participating in disaster risk reduction efforts?

One significant achievement of the Government's efforts to create a disaster resilient nation is to create mechanisms that have clarified and strengthened the role of government, NGOs and private sector organizations through the development of Standing Orders on Disasters. Disaster risk reduction is incorporated into the intervention strategies of many NGOs and civil society institutions addressing developmental problems. Disaster management courses are taught at the university level and in the curricula of government training institutions. The Disaster Management Bureau (DMB) has introduced disaster management and awareness programmes into primary and secondary school curricula in order to inculcate disaster preparedness into a new generation of citizens. The government media has also developed products that draw attention to the plight of vulnerable groups living daily in hazard-prone areas. The Bangladesh Red Crescent Society (BDRCS) is particularly active in all areas of the country to mobilize risk reduction initiatives.

³ Guidelines for Earthquake Resistant Non-Engineered Construction. Published by the Bangladesh Earthquake Society with financial support from USAID and CARE Bangladesh. March 2004.

Component 2: Risk Identification

2.1 Has your country carried out hazard mapping/assessment?

Hazard mapping/assessments have been undertaken by several disaster management stakeholder agencies to examine the potential risk facing urban and rural populations to specific hazards i.e. cyclone, flood, drought, riverbank erosion, landslides, tornado and earthquakes. A flood hazard map and land development priority map were developed in 2000 using National Oceanographic and Atmospheric Administration (NOAA) Satellite, Advanced Very High Resolution Radiometer (AVHRR) and Geographical Information System (GIS) data⁴. The GIS data maintained by Local Government Engineering Department (LGED) and Bangladesh Agriculture Research Council (BARC) are also consulted for vulnerability mapping. Flood hazard ranks were categorized using the flood affect on land cover, classifications, physiographic and geologic divisions. Scientific and academic institutions, non-governmental agencies and the private sector have undertaken other studies. Donor agencies have also undertaken identification missions to assess specific hazards such as arsenic toxicity, urban vulnerability to earthquakes⁵ and famine as a consequence of food insecurity.⁶

The results of the hazard mapping is being used by a plethora of government, non-government and donor agencies to design, implement and assess the risk reduction impact achieved through development intervention strategies. Agencies such as the Flood Forecasting and Warning Centers (FFWC), the Bangladesh Meteorological Department (BMD), Centre for Environmental and Geographic Information Services (CEGIS), Institute of Water Modeling (IWM) and the Space Research and Remote Sensing Organization (SPARRSO) have particular interest in this information as per responsibilities for early warning dissemination and collaborative linkages with regional and international organizations.

The Disaster Management Bureau, with the funding from UNDP, developed a detailed hazard map of the country showing zones affected by flood, cyclone, earthquake and drought.

2.2 Has your country carried out vulnerability and capacity assessments?

Vulnerability and capacity assessments have been undertaken, in selected geographical locations by many non-governmental agencies/institutions as part of their developmental programme design/baseline process but a country level VCA is yet to be

⁴ Flood hazard map and land development priority map developed using NOAA AVHRR and GIS data. Dr. Md. Monirul Islam, Research Fellow, Tropical Marine Science Institute, National University of Singapore. Dr. Kimiteru Sado, Professor, Kitami Institute of Technology, Kitami, Japan. 2000.

⁵ Identification Mission for the Disaster Preparedness Programme: Draft Final Report. March 2004. Parsons Brinckerhoff Ltd.

⁶ Agro-economic and Social Vulnerability Assessment for the Bangladesh Food Insecurity and Vulnerability Information and Mapping Systems. Dr. Shantana R. Halder. Bangladesh FIVIMS Secretariat, Programming Division, Planning Commission. Government of Bangladesh. April 2004.

undertaken. However, the Government of Bangladesh has examined its vulnerability to climatic change, as part of the NAPA process, and as part of the core business of related governmental and scientific institutions. However, the level of adaptation achieved to date is far from the objective of achieving sustainable development. For example, CARE Bangladesh, in its Reducing Vulnerability to Climate Change Project is seeking to build capacity of rural communities to adapt to the adverse effects of climate change. The project seeks to increase climate change awareness, build local capacity to disseminate information and forecasts and extend proven grassroots techniques to reduce risks at the household level⁷.

2.3 Does your country have any mechanisms for risk monitoring and risk mapping?

Bangladesh has several academic and scientific institutions with the capabilities of supporting the Government in risk monitoring and risk mapping. Institutions such as the Institute for Water Modeling (IWM), Flood Forecasting and Warning Centers (FFWC), Bangladesh Meteorological Department (BMD), Center for Environmental and Geographic Information Services (CEGIS), Bangladesh University of Engineering and Technology (BUET) and the Space Research and Remote Sensing Organization (SPARRSO) are involved in risk monitoring and risk mapping.

2.4 Is there a systematic socio-economic and environmental impact and loss analysis in your country after each major disaster?

Information is gathered by a variety of governmental agencies to assess the impact of a catastrophic episode using the traditional indices of loss of lives, injured, property damage and the economic losses in livelihood and infrastructure. What is required is the development of skilled and institutional capacity within governmental agencies to initiate strategic assessments using up to date tools and methodologies to best reflect the socio-economic and environmental impact of major crises such as floods and cyclones.

After the catastrophic 1988 flood, a detailed analysis was undertaken with the support of donor agencies and development partners. The Flood Action Plan included a study of 26 components ranging from a scientific assessment of the flood to the social effects on the lives of those affected. Findings of the exercise are available with the government, research organization and national libraries.

The government organized a lesson-learned workshop for all disaster preparedness and response stakeholders following the 1991 cyclone. This workshop was the first milestone in the paradigm shift for the Government of Bangladesh to move from relief to a preparedness spectrum on disaster management.

⁷ Other NGOs namely Oxfam GB, World Vision, Action Aid, Dip Unnoyan Sansthya and others have undertaken similar vulnerability assessment as part of their development planning.

2.5 Are there early warning systems in place?

Bangladesh has a very effective system for dissemination of early warning against approaching cyclones. The Bangladesh Meteorological Department (BMD) issues warnings to coastal residents of potential cyclonic episodes while FFWC issues warnings to flood-prone areas of rising river flows. The Bangladesh Red Crescent Society (BDRCS), in a joint venture with the Government of Bangladesh, has initiated the Cyclone Preparedness Programme (CPP) as part of an early warning system to protect the eleven million people residing in the low-lying coastal area and offshore island in the Bay of Bengal. The BDRCS also initiated a community-based disaster preparedness programme to extend their geographical scope and embrace other types of disaster episodes – flash floods and river erosion.

The BMD recently issued a storm warning of high winds in May 2004 to marine transporters. The BMD, SPARRSO and the BDRCS coordinate warning systems for cyclone preparedness caters to eleven million coastal residents. The devastating effects of major cyclones in 1970 and 1991 have not been forgotten. Now, 34,000 BDRCS volunteers train communities to respond to early warning signals in a manner prescribed to save lives.

Component 3: Knowledge Management

3.1 Does your country have disaster risk information management systems (governmental and/or non-governmental)?

Bangladesh is in the process of developing a fully functional disaster risk information management system at the moment. The Ministry of Food and Disaster Management has programs, developed in cooperation with donor and non-governmental agencies, which are disseminating public information on disaster preparedness and response to specific hazards. The Network for Information, Response and Preparedness Activities on Disaster (NIRAPAD) is a non-governmental organization initiative developed to provide rapid information on major and localized disasters in Bangladesh. The Disaster Management Bureau, in cooperation with UNICEF, issues a newsletter on disaster management events.

The Disaster Emergency Response Group (DER) is another forum for sharing information. The DER group, chaired by World Food Programme and composed of representatives of the Government, donor agencies and the NGO community, seeks to provide timely information on major and localized disasters and in undertaking joint field level needs assessments.

The Comprehensive Disaster Management Programme, under the management of the Ministry of Food and Disaster Management, is developing a Disaster Management Information Center (DMIC) to respond to the need for a more effective, better coordinated, information management system i.e. collection, analysis, dissemination and reporting. The DMIC will promote partnerships, enhance coordination and be a

source of information for policy advocacy in mainstreaming disaster risk management into the development planning process.

3.2 Are the academic and research communities in the country linked to the national or local institutions dealing with disaster reduction?

Institutional linkages do exist between the academic and research community with the Ministry of Food and Disaster Management (MFDM) and other relevant government ministries addressing risk reduction. Local scientific and academic institutions such as the Institute of Water Modeling, the Center for Environmental and Geographic Information Services, Bangladesh Public Administration Training Center, Disaster Research Training and Management Center (DRTMC) and the Department of Geography and Environment at Dhaka University, BMD, and SPARRSO are providing initiating activities to build capacities and raise awareness about disaster risk reduction modalities. There needs to be a more consistent interface between the scientific and technological experts and the disaster management officials.

3.3 Are there educational programmes related to disaster risk reduction in your public school system?

The Disaster Management Bureau (DMB) has been able to introduce disaster management messages and awareness programmes into primary and secondary school curricula up to grade 12. In 1997, the DMB was successful in mandating that all children from grades 6 to 8 be required to read a chapter on disaster management as part of the school curriculum.

3.4 Are there any training programmes available?

The Bangladesh Public Administration Training Center (BPATC) is the apex training institution offering skills-based training, including disaster management, to government staff and officials. The National Defense College and all the training institutes belonging to the army, navy and air services are providing disaster management training for their military personnel. The Disaster Management Bureau (DMB) is the entrusted public institution to provide training courses for members of disaster management committees at the district, sub-district, union and grass-root levels. The Bureau trains representatives of civil societies i.e. teachers, religious leaders, youth volunteers. BMD and SPARRSO also impart training on disaster management. Non-governmental organizations, academic institutions and UN/donor agencies have been pro-active in conducting short-term in-country training initiatives for a variety of disaster management risk reduction stakeholders. Regionally, the Asian Disaster Preparedness Center in Thailand and the Asian Disaster Reduction Center has offered training to Bangladesh officials engaged in policy development or programme implementation and management.

For example, the Asian Disaster Preparedness Center (ADPC) in Bangkok, Thailand played a lead role in the Asian Urban Disaster Mitigation Programme in which

Bangladesh was a stakeholder. The MFDM is also engaged with the National Society for Earthquake Technology – Nepal (NSET) in the Program for Enhancement of Emergency Response (PEER). Bangladesh was invited to join PEER based on three factors – high seismic vulnerability, need to improve disaster response capacity and the interest of the government to participate in the program.

World Food Programme, ADPC, the Disaster Management Bureau in concert with UNICEF and a variety of national/international non-governmental agencies have also undertaken training activities in disaster risk reduction.

3.5 What kind of traditional indigenous knowledge and wisdom is used in disaster-related practices or training programmes on disaster risk reduction in your country?

Traditional indigenous knowledge and wisdom is often used in disaster related training programmes. The Bangladesh Red Crescent Society, through its Cyclone Preparedness Programme with the Ministry of Food and Disaster Management, incorporates some of the following practices into its community training curriculum: When cyclonic storm surges bring saline water to contaminate water sources, they recommend that communities bury coconuts and dry foodstuffs underground in pre-identified locations for use after the storm. In flood prone areas, the practice of using the lily pad of the water hyacinth as a seedbed is widely accepted recommended by the Department of Agriculture and the non-governmental agencies. The development of seed banks is a growing practice where communities are particularly vulnerable to monsoon floods – depositing seed prior to the monsoon rains and collecting their seed when ready to plant.

3.6 Do you have any national public awareness programmes or campaigns on disaster risk reduction?

Bangladesh has a national public awareness programme on risk reduction where National Disaster Preparedness Day and International Disaster Reduction Day are observed annually. There is a need for more coordinated national public awareness programme on disaster risk reduction at the moment. However, several institutions are engaged in the development of materials to raise awareness levels of the public to risks from a variety of natural and human induced hazards. For example, government-sponsored agencies like Bangladesh National Cadet Corps and voluntary associations such as the Bangladesh Scouts and Girls' Guides have been active in creating awareness among the students in particular and the public in general. In Bangladesh, addressing risk reduction will further require attention to specific social vulnerabilities in order to reduce the probability and magnitude of future catastrophic episodes.

The Comprehensive Disaster Management Programme shall establish a formal Advocacy Group, chaired by the Minister, Ministry of Food and Disaster Management, and composed of parliamentarians, senior government officials, media representatives and disaster management stakeholders from the NGO and private sectors. The aim of

the Advocacy Group is to transform public representatives and policy-making officials to carry forward for a risk management culture willing to enact policies and mainstream measures to make risk reduction a core business of the Government.

Component 4: Risk Management Applications/Instruments

4.1 Are there any good examples of linking environmental management and risk reduction practices in your country?

Good examples of linking environmental management and risk reduction practices in Bangladesh include the following:

- The successful and ongoing Coastal Afforestation Project in cyclone-prone areas has been contributing greatly not only to environmental management, but also for reduction of risks of disasters.
- NEMAP (National Environmental Management Action Plan) has incorporated disaster risk reduction as an important issue to be addressed.
- Integrated Coastal Zone Management Plan is worth mentioning.
- The Char Livelihood Programme (CLP), US\$ 60 million project funded by DFID, has high emphasis on disaster risk reduction in sustainable development and environmental management.
- Char Development and Settlement Project funded by the Government of the Netherlands.

The Government has undertaken several initiatives to address specific environmental problems. For example, the Government has revoked the licenses of two- stroke three wheeled vehicles in Dhaka as a measure to reverse air pollution from January 2003. From March 2002 a ban has been imposed throughout Bangladesh on the use of polythene bags. The Government has prohibited fuel wood from being used in the firing of bricks and an environmental court was established in 2002 to facilitate the quick trial of all environmental offenders.

4.2 Are financial instruments utilized in your country as a measure to reduce the impact of disasters?

Bangladesh has a number of financial instruments in place such as agricultural credit, micro-credit finance and community funds such as the Vulnerability Group Development (VGD), Food for Work (FFW) and Cash for Work (CFW). The Government has recently launched a project of US \$ 8 million for disaster risk reduction in high disaster risk areas. Micro-credit is used at community level, both for risk reduction

(construction/reinforcement of houses, raising the level of plinths of houses in low-lying areas, etc.) and post-disaster reconstruction and rehabilitation measures.

In addition, fire insurance schemes are operated by private insurance companies for major industrial and business establishments.

4.3 Please identify specific examples of technical measures or programmes on disaster risk reduction that have been carried out in your country.

Examples of technical measures or programmes that have been carried out for reduction of disaster risks include the following:

- The construction of over 2500 reinforced cement-concrete-cyclone-shelters is a successful case in question. Each structure can accommodate between 700 and 1000 people during cyclone emergencies.
- Over 150 *kills* (raised earthen enclosures), to accommodate people and cattle during cyclonic episodes.
- Air quality monitoring is an important initiative undertaken by the Department of Environment of the Government.
- Other initiatives taken for disaster risk reduction include a ban on the use of two-stroke-engine-driven auto rickshaws in Dhaka city and the ban on the use of polyethylene bags throughout the country.
- Flood Protection Embankment Project of Bangladesh Water Development Board (BWDB)

The following disaster management related projects have been undertaken with technical assistance from development partners: Water Management Improvement Project by the Ministry of Water Resources/World Bank; Community Based Disaster Preparedness Programme and the Cyclone Preparedness Programme by the Bangladesh Red Crescent Society and the International Federation of Red Cross and Red Crescent Societies; Sustainable Environment Management Programme (SEMP) by UNDP, Integrated Coastal Zone Management Programme by Department For International Development (DFID) and the Government of the Netherlands; NIRAPAD by CARE Bangladesh/United States Agency for International Development (USAID), Disaster Management Programs (at national, district, upazila and union level) by Oxfam with DFID funding; Cyclone Shelter construction and maintenance program by World Vision/USAID; Primary School/Cyclone Shelter Program by the European Union (EU); Climate Forecasting and Adaptation in Bangladesh by USAID; Asian Urban Disaster Mitigation Programme by the Asian Disaster Preparedness Center (ADPC)/USAID.

Component 5: Preparedness and Contingency Planning

5.1 Do you have disaster contingency plans in place? Are they prepared for both national and community levels?

Contingency planning has been set in place at all levels of society for specific disaster responses to major catastrophes such as cyclonic episodes and floods. The 1999 Standing Orders on Disasters articulates the role and responsibilities of the government and other response stakeholders. From the district, upazila to the union levels, a series of local disaster response committees have prepared local disaster action plans to address specific hazard episodes likely to impact upon the resident population. In addition, specific Local Disaster Action Plans (LDAP) have been prepared by over 700 Union Parishads through a participatory process of learning and sharing. The Comprehensive Disaster Management Programme will embark upon a training programme to incorporate disaster risk reduction into the process of developing local disaster action plans as well as into the local development plans.

5.2 Has your government established emergency funds for disaster response and are there national or community storage facilities for emergency relief items – mainly food, medicine, tents/shelters?

There is the Prime Ministers Relief Fund. The Ministry of Food and Disaster Management has an annual budget allocation, in food assistance and in cash, to respond to national and localized emergencies. Bangladesh has a very sound network of storage facilities at national, sub-regional and community levels for stock piling of food, clothing, medicines, etc required for post-disaster relief and rehabilitation operations.

The U.S. government Office of Foreign Disaster Assistance (OFDA) has financed storage facilities and emergency supplies in country, under the supervision of a US NGO, for use in a national or regional disaster episode.

5.3 Who is responsible for the coordination of disaster response preparedness and is the coordination body equipped with enough human and financial resources for the job?

The responsibility for the coordination of disaster response preparedness is the Ministry of Food and Disaster Management (MFDM). The Disaster Management Bureau (DMB) and the Directorate of Relief and Rehabilitation (DRR), under the Ministry of Food and Disaster Management (MFDM), are responsible for coordination for preparedness and response operations respectively, at the national level. Similar responsibilities are performed at the district, sub-district and at the Union by the respective disaster management committees.

There exists a critical need for professional staff development within the MFDM and other implementing agencies. A shortage of professional or skilled staff will impede the

transition from a relief to risk management culture contained within the development environment. The departments and committees, mentioned above, have adequate personnel but need financial support in undertaking programmes to raise institutional capacity and professional skills.

Component 6: Call for good practices in disaster risk management.

A. Cyclone Preparedness Programme Bangladesh Red Crescent Society

Cyclonic winds and storm surges occur frequently and cause significant destruction along the coastline of Bangladesh. From 1960 to 2002, a total of 173 depressions have formed in the Bay of Bengal and resulted in 66 major cyclonic storms and tidal surges reaching the 11 million populations residing on the coastal belt and offshore islands. In 1965 the National Red Crescent Society began efforts to establish an early warning system for the residents of the coastal belt using existing structures at the village level. Following the devastating cyclone in November 1970, the Bangladesh Red Crescent Society (BDRCS) and the League of Red Cross and Red Crescent Societies was asked by the United Nations General Assembly to establish the Cyclone Preparedness Programme (CPP) with the aim of minimizing loss of life and damage to property in coastal communities vulnerable to cyclonic activity. The BDRCS Cyclone Preparedness Programme, a joint venture with the Ministry of Food and Disaster Management, is a key component of the nation's institutional early warning system and represents one of the most successful initiatives in early warning in the South-East Asian region.

The BDRCS Cyclone Preparedness Programme covers 11 districts in the coastal areas. Volunteers have been trained to play a crucial role in the dissemination of cyclone warnings, evacuation, rescue, first aid emergency relief and in the usage of radio communication equipment. The 27,600 trained men and 5,520 female volunteers are the first line of an early warning system to the members of their communities. As an operational wing of the government's Disaster Management Bureau, the CPP staff provides scheduled daily weather reports via and extensive high frequency (HF) radio transmitting stations operated by volunteers throughout the coastal region of Bangladesh. In the mid-1980's a complimentary disaster preparedness programme was initiated to promote community participation in the construction and maintenance of cyclone shelters.

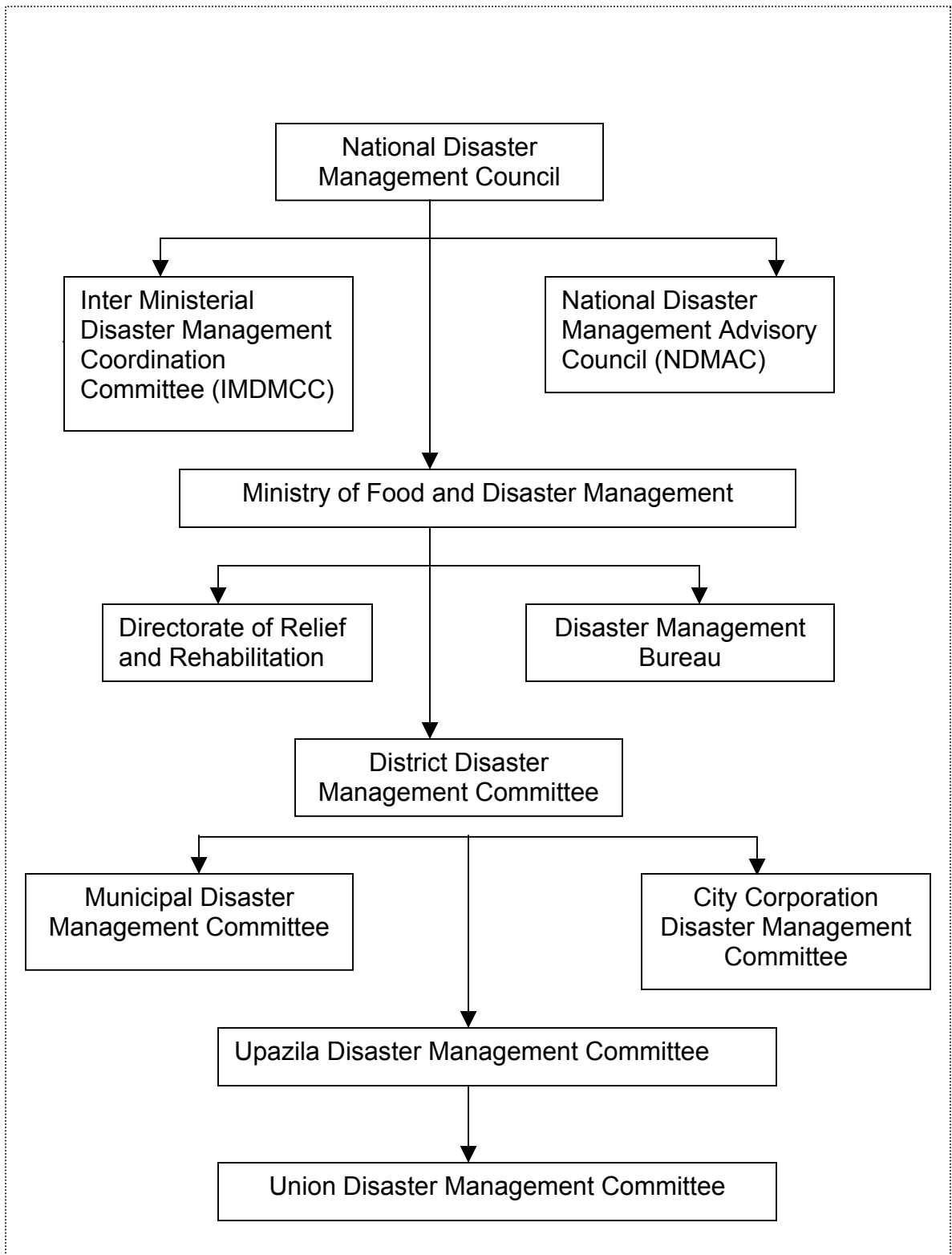
The official mandate of the BDRCS as stated in the Standing Orders for Cyclones, Floods and Famine is to compliment the government's efforts in case of emergency relief situations emphasizing the development of disaster preparedness related plans and programmes. The BDRCS's innovative use of the operational skills and dedicated commitment of community volunteers living in coastal and offshore island villages is internationally regarded as a "standard of excellence".

B. Disaster Preparedness Planning – From Relief to Risk Reduction, Ministry of Food and Disaster Management

The development of contingency plans to address to anticipated consequences of a hazard is the responsibility of the Ministry of Food and Disaster Management. Following the devastating floods of 1988 and the 1991 cyclone, the government established a set of institutional arrangements to prepare for and respond to national and localized emergencies. In 1993 the Ministry of Relief was renamed the Ministry of Disaster Management and Relief and its mandate amended to assume full responsibility for the tasks in the disaster management cycle.

A series of inter-related institutions were developed to insure that planning and coordination of disaster episodes was performed in accordance with the Standing Orders on Disasters. Specific codes have been developed to address cyclones, floods, drought and famine. And, work has begun on the code for earthquakes. These codes are brought to the forefront when articulated at institutional levels from the Union Disaster Management Committee (lowest community level) to the apex institution level of the National Disaster Management Council headed by the Prime Minister. As shown in the attached diagram, the development of local, upazila, district and national disaster management strategies is both broad-based and comprehensive.

The Comprehensive Disaster Management Programme, of the Ministry of Food and Disaster Management, is mandated to raise the awareness level of institutional members to risk reduction issues and the use of its tools for planning and managing both mitigation and response initiatives.



**C. THE DISASTER MANAGEMENT BUREAU
COORDINATION AT THE NATIONAL LEVEL**

The Disaster Management Bureau (DMB) was created in 1992 under the Ministry of Disaster Management and Relief. The DMB has the responsibility to create public awareness on the severity and risks associated with natural and human-induced hazards and to formulate programs and projects that will better prepare at-risk communities and public officials to mitigate their consequences. They are also entrusted to maintain an effective liaison with government agencies, donors and NGOs to ensure maximum cooperation and coordination in all aspects of disaster management.

The DMB, during non-emergency periods, undertakes the following:

- Provides secretarial support to the National Advisory Committee on Disasters.
- Prepares guidelines for mitigation of disaster episodes with the assistance of the Planning Commission and other agencies to reduce disaster risk.
- Publishes and distributes the Standing Orders on Disaster, National Disaster Management Plan and other related guidelines.
- Proposes legislation on disaster management, preparedness and mitigation.
- Assists in the preparation of and implementation of disaster management action plans at the district, thana and union levels.
- Arranges public awareness programmes on various disaster related issues.

During disaster episodes, the DMB is responsible for the following:

- The 24-hour management of the Emergency Operations Center.
- Provision of information to the Government, foreign missions and UN agencies through daily news bulletins.
- Assists the Ministry of Food and Disaster Management in primary needs assessment and monitors progress in rescue and relief and rehabilitation operations.
- Assists the Inter-Ministerial Disaster Management Coordination Committee to ensure cooperation among all stakeholders in relief and rehabilitation initiatives.

The DMB staff deserves sincere thanks from the people of Bangladesh for their efforts to reduce the level of risk to loss of lives and damage to property associated with natural and human induced hazards

Component 7: Priorities you want addressed at the World Conference on Disaster Reduction

Followings are the priority issues needs to be addressed at the Conference on Disaster Reduction:

- The development of mechanisms with regional and global partners to expand the level of education, training and knowledge sharing on risk reduction applications with the Government of Bangladesh and the nation's risk reduction stakeholder agencies.
- To establish a Special Fund for disaster-prone nations seeking technical and financial support to initiate risk reduction programmes to counter the potential human and economic losses to any future catastrophic events.
- To address regional issues of environmental protection as an imperative to achieve sustainable development while seeking to protect the lives and livelihood of the population.
- Achievement of cross-boundary water resource management including real time regional data sharing and development of a collaborative network.

CDMP
14/06/2004

INFORMATION ON NATIONAL CONTACT AND PROVIDER OF INFORMATION

Name: Mr. Faruq Ahmed
Position: Secretary-in-Charge
Organization: Ministry of Food and Disaster Management
Address: Bangladesh Secretariat
State/Province/District: Dhaka
Post Code: 1000
Country: Bangladesh
Telephone: (88-2) 7166485, (88-2) 7168744
Fax: (88-2) 7169623, (88-2) 7174148
E-mail: mdmr@bttb.net.bd
Website: not applicable

Was the information provided consulted with other institutions? YES

The following organizations were consulted:

1. Ministry of Water Resources
2. Ministry of Environment and Forest
3. Ministry of Housing and Public Works
4. Planning Commission
5. Armed Forces Division
6. Disaster Management Bureau
7. Directorate of Relief and Rehabilitation
8. Bangladesh Space Research and Remote Sensing Organization
9. Bangladesh Meteorological Department
10. Bangladesh Red Crescent Society
11. Institute of Water Modeling
12. Flood Forecasting and Warning Center
13. Bangladesh Disaster Preparedness Center
14. Comprehensive Disaster Management Programme

BANGLADESH: COUNTRY PROFILE

Official Name	:	People's Republic of Bangladesh
Head of the State	:	President Professor Dr. Iajuddin Ahmed
Head of the Government	:	Prime Minister Begum Khaleda Zia
Geographical location	:	Bangladesh is situated in the eastern part of the South Asian land mass. It lies between latitudes 23°34' and 26°38' North, and Longitudes 88°01' and 92°41' East. The country is bordered by India on the east, west and north, and by the Bay of Bengal and a small border strip with Myanmar on the south.
Area	:	147,570 sq km
Administrative units	:	6 Divisions, 64 Districts, 469 Upazilas, 4,484 Unions, 59,990 Mouzas
City Corporations	:	6
Municipalities	:	282
Capital	:	Dhaka (Population in 2002-10 million)
Office language	:	Bangla
Currency	:	Taka/Tk (US\$ 1 = Tk. 57.90)
Population	:	130.4 million
Population growth rate (1991-2001)	:	1.47%
Population Density per sq. km	:	895
Urban Population (approx. 2003)	:	25%
Sex ratio	:	103 males per 100 females
Fertility rate (per women, 2000)	:	2.5
Contraceptive prevalence rate (2000)	:	61.8 years
Infant mortality per 1000 live births (below 1 year, 2000)	:	51
Adult literacy rate 15+yrs, 2003)	:	65%
Civilian labour force (1999-2000)	:	60.3 million
GDP (estimate for 2002-03, at 1995-96 constant price):	:	Taka. 2372.59 billion
GDP growth rate (2002-03, at 1995-96 constant price)	:	5.33% (for 2003-2004, it is expected to grow by 5.7%)
Per capita GDP (2002-03)	:	US\$ 389
Savings-GDP Ratio (2002-03)	:	23.74%
Public Expenditure-GDP Ratio	:	10.34%
Revenue-GDP Ratio (2002-2003)	:	10.34%
Investment-GDP Ratio (2002-03)	:	23.21%
Foreign Exchange Reserve (July 2003)	:	Over US\$ 2 billion
Population below poverty line (2000, daily intake below 2122 K. Cal.)	:	44.3%
Population below poverty line (2000, daily intake below 1805 K. Cal.)	:	20.0%
Main seasons	:	Winter (November-February), Summer (March-June), Monsoon (July-October)

Responsibilities of Disaster Management Committees

1. National Disaster Management Council

- (i) Formulate policy regarding Disaster Management and issue guidelines in this respect.
- (ii) Examine the recommendations of the Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) and National Disaster Management Advisory Committee (NDMAC) and issue directives for their implementation.
- (iii) Approve the Standing Orders on Disasters and National Disaster Management plans.
- (iv) Ensure coordination amongst civil administration, Defence Forces and the NGOs in the planning process of disaster management.
- (v) Arrange framing of law for prevention, mitigation, preparedness and disaster response.
- (vi) Take necessary steps after evaluating the precautionary/preparedness measures immediately with the warning signals regarding imminent disaster.
- (vii) Frame guidelines for distribution of relief materials and assign priority of steps during pre-disaster, disaster and post-disaster periods.
- (viii) Consider other related issues and dispose of them.

2. Inter-Ministerial Disaster Management Coordination Committee

Overall Responsibilities

- (a) Implement the policy and decisions of the National Disaster Management Council. To monitor the disaster related plans for prevention/mitigation, preparedness, emergency assistance (Disaster Relief), and rehabilitation and to keep the Council informed of the progress.
- (b) Coordinate the activities of the government agencies concerned with disaster management and evaluate the activities of the Disaster Management Bureau.
- (c) Scrutinize the disaster preparedness of different Ministries and Agencies every six months.
- (d) Take steps for coordination of relief operations in post-disaster recovery period, and
- (e) Advise and issue guidelines for other related issues.

Responsibilities regarding Disaster Prevention/Mitigation

- (a) Recommend to the National Disaster Management Council regarding the prioritization and inclusion of disaster prevention/mitigation projects in the National Development Plan.
- (b) Determine the method of Disaster Impact Assessment (DIA) of large projects regarding their longevity against increasing disaster or damage during disaster.
- (c) Coordinate preparation and implementation of disaster prevention/mitigation projects and to recommend framing of policy, fixing priorities and distributing assets in this respect.
- (d) Arrange for increasing efficiency at all levels of disaster management activities.
- (e) Monitor the disaster risks and their mitigation according to priorities in the national policy and their implementation and to keep the National Disaster Management Council informed of their progress.

Responsibilities regarding Disaster Preparedness

- (a) Scrutinize the disaster forecasts and warning procedure and coordinate among the different agencies.
- (b) Review the action plan of all disaster related agencies.
- (c) Monitor the overall disaster preparedness programmes and inform the National Disaster Management Council (NDMC).
- (d) Review the Warning System at local level.
- (e) Coordinate among different agencies responsible for educating people concerning their duties during disasters.
- (f) Ensure coordination among government agencies and NGOs responsible for imparting training on disaster management.
- (g) Ensure rapid supply of additional equipment/materials to places where telecommunication has been disrupted on account of disaster.
- (h) Ensure quick assessment of damage due to disaster and the quality of reconstruction work.

Responsibilities to meet emergency situation

Alert/Warning Stage

- (d) Ensure that warning signals reach all concerned officials, agencies and mass media.

Disaster Stage

- (a) Depute additional manpower to disaster affected areas in aid of administration.
- (b) Send members of the Defence Services with assigned duties for communications and essential services.
- (c) Determine priority and issue instructions regarding relief materials, funds and transports.

3. National Disaster Management Advisory Committee

- (a) Advise National Disaster Management Council, Ministry of Disaster Management and Relief and the Disaster Management Bureau on technical management and socio-economic aspects of Disaster Prevention/Mitigation, preparedness, emergency response and development (rehabilitation and reconstruction matters).
- (b) Alert the Committee members about the risk of disaster and mitigation possibilities and encourage them in respect of workshop, training and research.
- (c) Create a forum for discussion by experts on the risk of disaster, opening opportunities for cooperation towards solution of problems relating to disaster management.

- (d) Recommend release of funds for special project works and also for introduction of special emergency methods or empowerment, if needed.
- (e) Recommend solution of problems identified by the Disaster Management Bureau or any other agency/person.
- (f) Propose long term rehabilitation plans.
- (g) Hold post-mortem or prepare final evaluation on programmes undertaken to meet the disaster and submit a report with recommendations to the National Disaster Management Council.