

# BANGLADESH COUNTRY PAPER

## I. Introduction

Bangladesh is currently going through a process of significant reform in the field of disaster management. This reform is based around a paradigm shift that will see risk reduction move from conventional response and relief to a more comprehensive risk reduction culture. The overall objective of this reform is to reduce the vulnerability of people, especially the poor, to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level. The reform includes:

- Following a comprehensive risk reduction approach for disaster management to ensure that community mitigation and preparedness programmes are designed around real risk scenarios.
- Creating the Disaster Management Bureau and a number of inter-related disaster management institutions (see the diagram)
- Renaming the Ministry of Relief and Rehabilitation to the Ministry of Disaster Management and Relief (in 2003) and then again renaming and merging it with the Ministry of Food in May 2004 (the current name is Ministry of Food and Disaster Management).
- Adapting a National Risk Reduction Framework
- Creating the Country Platform for Risk Reduction Strategies
- Developing strategic policy and programming frameworks

The Risk Reduction model adopted by the Government of Bangladesh is an internationally best practice model. The model ensures a methodical approach to risk reduction by ensuring that both formal and traditional risk assessment is utilized to guide the design of the disaster management programmes. The advantages of this approach are that it ensures risk is assessed for

- all geographical areas,
- all hazards,
- all risks and
- all sectors.

It also provides a “big picture” strategic framework for achieving mainstreaming and determining priorities related to the above.

## II. Disaster Management Institutional Arrangements

The Ministry of Food and Disaster Management (MoFDM) of the Government of Bangladesh has the responsibility for coordinating national disaster management efforts across all agencies. In August 1999 the Ministry has issued the Standing Orders on Disasters (SOD) to guide and monitor disaster management activities in Bangladesh. A series of inter-related institutions, at both national and sub-national levels have been created to ensure effective

planning and coordination of disaster management and emergency response events.

### ***Organizational structure at the national level***

- i. National Disaster Management Council (NDMC):** It is headed by the Hon'ble Prime Minister to formulate and review the disaster management policies and issue directives to all concerns.
- ii. Inter-Ministerial Disaster Management Co-ordination Committee (IMDMCC):** It is headed by the Hon'ble Minister in charge of the Ministry of Food and Disaster Management (MoFDM) to implement disaster management policies and decisions of NDMC / Government.
- iii. National Disaster Management Advisory Committee (NDMAC):** It is to be headed by an experienced person having been nominated by the Hon'ble Prime Minister.
- iv. Cyclone Preparedness Program Implementation Board (CPPIB):** It is headed by the Secretary, Ministry of Food and Disaster Management to review the preparedness activities in the face of initial stage of an impending cyclone.
- v. Disaster Management Training and Public Awareness Building Task Force (DMTATF):** It is headed by the Director General of Disaster Management Bureau (DMB) to co-ordinate the disaster related training and public awareness activities of the Government, NGOs and other organizations.
- vi. Focal Point Operation Coordination Group of Disaster Management (FPOCG):** It is headed by the Director General of DMB to review and co-ordinate the activities of various departments/agencies related to disaster management and also to review the Contingency Plan prepared by concerned departments.
- vii. NGO Coordination Committee on Disaster Management (NGOCC):** It is headed by the Director General of DMB to review and co-ordinate the activities of concerned NGOs in the country.
- viii. Committee for Speedy Dissemination of Disaster Related Warning/ Signals (CSDDWS):** It is headed by the Director General of DMB to examine, ensure and find out the ways and means for the speedy dissemination of warning/ signals among the people.

### ***Organizational structure at sub-national levels***

- i. District Disaster Management Committee (DDMC):** It is headed by the Deputy Commissioner (DC) to co-ordinate and review the disaster management activities at the district level.

- ii. **Upazila Disaster Management Committee (UZDMC):** It is headed by the Upazila Nirbahi Officer (UNO) to co-ordinate and review the disaster management activities at the Upazila level.
- iii. **Union Disaster Management Committee (UDMC):** It is headed by the Chairman of the Union Parishad to co-ordinate, review and implement the disaster management activities of the concerned union.
- iv. **Pourashava Disaster Management Committee (PDMC):** It is headed by Chairman of Pourashava (municipality) to co-ordinate, review and implement the disaster management activities within its area of jurisdiction.
- v. **City Corporation Disaster Management Committee (CCDMC):** It is headed by the Mayor of City Corporations to co-ordinate, review and implement the disaster management activities within its area of jurisdiction.

The SOD provides detailed roles and responsibilities of all disaster management committees, relevant ministries, divisions, departments and agencies at all levels for normal period risk reduction and during emergency response periods.

### **III. Economic and Social Implication of Disasters**

Large scale natural hazards (Cyclone 1971, 1991; Floods 1970, 1988, 1998, 2004) had significant implications on the development achievements in Bangladesh. Regular hazards (tornados, nor'easters, waterlogging, river floods, storms, flash floods, tidal floods, river bank erosion, agricultural droughts, salinity, ferry tragedy, and road accidents) also has significant impacts on life, critical infrastructures and livelihoods. On an average, annually 6/7 medium level tornados are observed and which causes serious damage of critical infrastructures (schools, clinics, houses, tube-well, etc.), life and livelihoods (agriculture, livestock, small groceries, etc.). Every year, Bangladesh is facing numerous disastrous hazards, a few of those are very local in nature and therefore the losses are not widely known. No annual loss is calculated nor have the standardized system in assessing the annual implication of natural hazards. However, the very recent past large scale Flood induced disaster implications are summarized in the following table.

### ***Damages caused by the floods of 2004***

Affected Districts	39
Affected Upazilas	266
Area Affected	34583 km sq
Affected Families	7,468,128
Affected Population	36,337,944
Human Lives Lost	747
Loss of Livestock	15,143
Crops Destroyed	1,605,958
Crops Damaged (partially)	1,038,176
Houses Destroyed	894,954
Houses damaged (partially)	338,9101
Road Network Destroyed	14,271 km.
Road Network Damaged	45,528 km.
Bridges and Culverts Damaged	5,478
Embankment Damaged	3,158 km.
Schools Destroyed	1,295
Schools Damaged (partially)	24,276

Source: National Workshop on Options for Flood Risks and Damage Reduction in Bangladesh Proceedings, 2004

## **IV. Risk Reduction Mainstreaming Strategy of Bangladesh**

Government of Bangladesh has developed disaster management model and also a mainstreaming strategy to reduce the risk of poor and disadvantaged people highly susceptible to natural hazards. The model is followed by the disaster management stakeholders in Bangladesh in developing their programmatic strategy.



### **Mainstreaming Risk Reduction – The Strategies**

Mainstreaming risk reduction efforts within government, NGOs and private sector is viewed as being the key to achieving sustainable all hazards risk reduction interventions across the whole country. In Bangladesh mainstreaming is seen in much the same light as poverty reduction in that it is the outcome of many top down and bottom up interventions. These are summarized below and articulated briefly within Figure 1.4.

**Advocacy:** Awareness raising among Political, Senior Policy and Government Department Officials, Media and Academic Institutions is a priority strategy for building knowledge and understanding on the benefits of risk reduction and the roles these organizations play in implementing risk reduction programmes.

**Policy and Planning Reform:** A significant review of disaster management and development planning policy is being undertaken to ensure that they facilitate mainstreaming and promote a comprehensive risk reduction culture.

**Capacity Building:** This strategy has targeted a complete review of the roles and responsibilities of disaster management committees (DMCs) at all levels to ensure they reflect risk reduction as well as emergency response functions. A national training curriculum is being developed to ensure that committees receive capacity building training to ensure they understand and can fulfill their functions effectively.

**Planning Frameworks:** Disaster management planning at all levels is being significantly overhauled to ensure that DMC plans accommodate risk reduction mainstreaming at all levels.

**Uniform CRA Guidelines:** Uniform CRA processes are being established to ensure consistency in the conduct of community risk identification and compatibility with the risk reduction planning processes of the respective DMCs. The guidelines also have steps to ensure strong linkages with scientific analysis information.

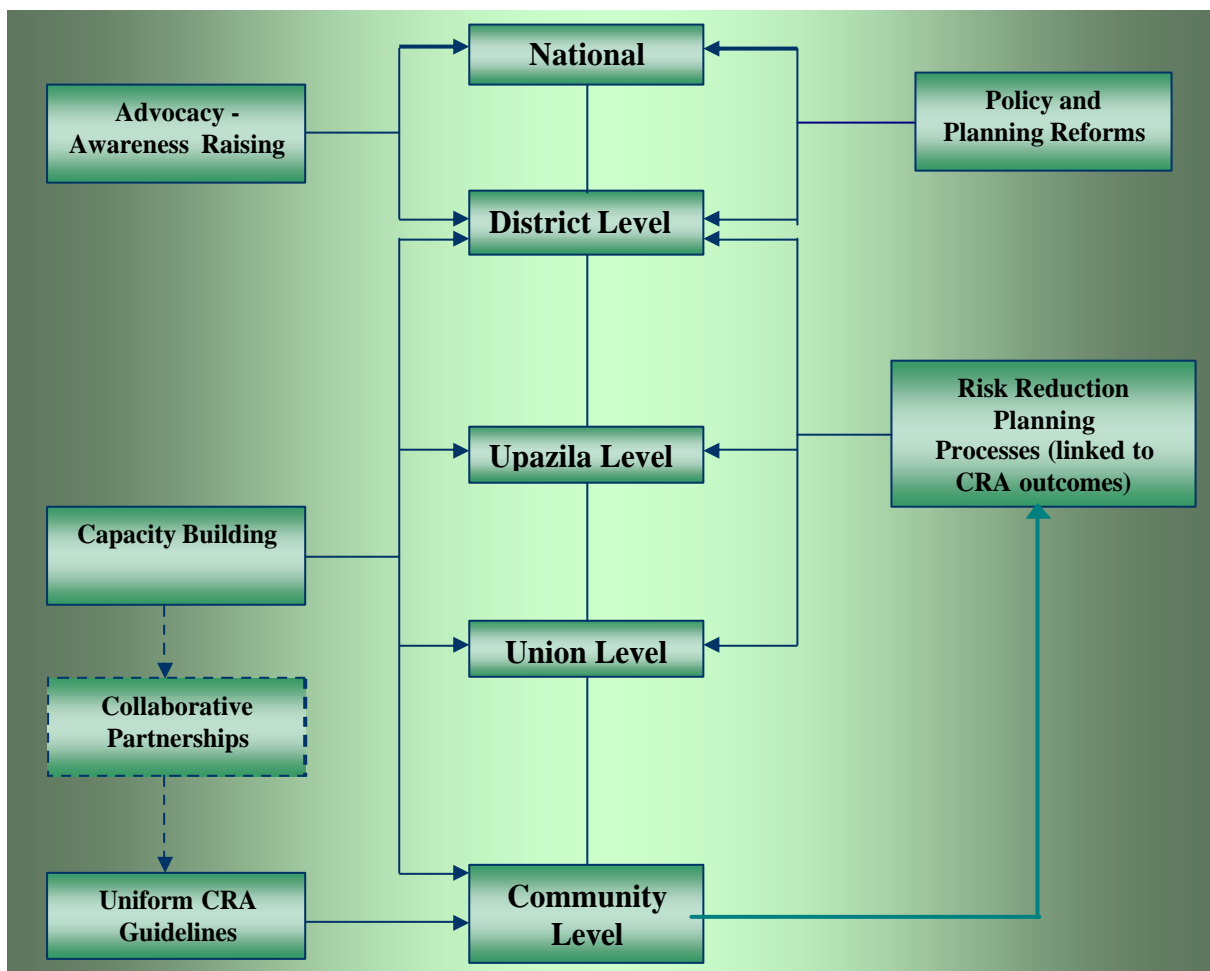


Figure 1.4: Mainstreaming Strategies

## **V. National Development Planning and Approval Process: Disaster Risk Consideration**

### ***Planning and Approval Process***

Ministry of Planning serve a set template of annual development plan to every ministry and ministry then compile the annual development plans of its agencies together and send back to the Ministry of Planning. If line agency identify any programmes in align to risk reduction considering the formal disaster risk assessment identified in the running year, and sufficient budget provision is there, then the programme is reflected in the annual development plan. For foreign funded projects, if the project document is not approved by the government, then it is not reflected in the annual plan. Only approved actions and budgets are reflected in the annual development plan. The formal procedure of incorporating risk reduction into the annual development plans is through the relevant line agency of the Government.

In case of Mega Development projects, line agency submit a project proposal to the planning ministry through line ministry and then it is screened by the planning ministry to make sure that it complies the national priorities and do not overlap with other programmes. Planning ministry also seek Environmental Impact Assessment report from Department of Environment to understand the environmental consequences of the mega projects. The two major criteria is maintained in approval process:

- (1) Cost Benefit and Environmental Screening; and
- (2) National Priority and Overlapping

If there is any changes needed then it is backed to the line agency through line ministry and the incorporated changes are further screened by the planning ministry for submission to the Executive Committee of National Economic Council (ECNEC) for approval. In many cases, ECNEC suggests some changes or mitigation measures which was identified as negative consequences of the project to the environment.

Ministry of Food and Disaster Management is going to develop a Disaster Impact and Risk Assessment (DIRA) for every mega development projects in addition to the EIA and SIA. This is very important screening tools ministry of food and disaster management is advocating with planning ministry to incorporate in the project planning and approval procedure. Disaster Management Bureau is currently developing the DIRA guideline.

### ***Programme of Ministry of Food and Disaster Management's Emergency Response and Risk Reduction***

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

### **The Directorate of Relief and Rehabilitation (DRR)**

Immediately after liberation the then Relief Department of East Pakistan started its function to rehabilitate the war affected and homeless people and to reconstruct the devastated economy which ultimately emerged as the Directorate of Relief and Rehabilitation (DRR).

DRR was established in 1983 vide Government Notification No. RRD-Sec-Admn-1/67/82/35 dated 09-01-1983 under the Ministry of Disaster Management and Relief (Now Ministry of Food & Disaster Management). The Directorate has five Wings under five Directors – who are supported by Deputy Directors, Engineers and Assistant Directors. The major programmes of DRR are:

- Food For Works (FFW)
- Test Relief
- Bridge and Culverts
- Execution of Risk Reduction Programme
- Relief and Rehabilitation programme
- Vulnerable Group Feeding (VGF) & Vulnerable Group Development (VGD)
- Food Security Enhancement Initiative (FSED) Programme
- Construction of Flood/disaster shelters

### ***Food for Works***

This programme is for construction, maintenance, reconstruction and development of rural infrastructure. Under this programme both food grains and cash money are allocated to the Upazilas on the basis of population. The schemes are executed by the Upazila Parishad under the supervision of the D.C. through the District Steering Committee. Upazila allocates the rice/wheat/cash money for FFW schemes to the Unions. The Upazila Parishad selects and prepares the FFW schemes through the U.P. Chairman and Upazila FFW committee, scrutinises the schemes and recommends the schemes to the District Co-ordination Committee who approves the schemes. After approval of the schemes the Upazila Parishad executes the schemes as per circular. Sometimes both food grains and money are allocated by the Ministry according to electoral constitution.

### ***Test Relief***

The programme is mainly for immediate repair of roads, damaged institutions, and other rural activities needed by the people. It provides employment opportunities for the poor people of rural areas. The programme is implemented according to government instructions.

### ***Bridge and culvert***

The Directorate also constructs Bridges and Culverts under different programmes/projects under PL-480 of the US Government. Every year a number of projects are being implemented under this programme. This year we have taken 265 projects against an amount of Taka 35,49,16,460 in 97 Upazilas

### ***Risk Reduction Fund***

As part of post-Flood 2004 recovery in December 2004 the Directorate started implementation of the programme as an assistance to the disaster affected micro entrepreneurs. The programme is for the poor entrepreneur, was piloted in 2003-2004. Under this programme a beneficiary receives financial assistance within the range of Tk. 5,000 to Tk 20,000 of which 20% is grant and 80% is loan depending on the severity of loss. The loan amount is repayable within 3 year period with an annual 5% flat interest rate. For this programme the MoFDM received a block allocation of Tk. 75 crore for the period 2005-06. So far about 62,000 beneficiaries in 27 districts has received the assistance.

### ***Relief and Rehabilitation Programme***

This is a disaster management programme of the Government/Directorate. The main objective of this programme is to meet the emergent needs of the situation. Relief works is undertaken in three phases:- Pre-disaster; Disaster period and Post Disaster period.

### ***Relief Assistance***

The Directorate of Relief and Rehabilitation provides the following disaster relief with the approval of the Govt.:-

- G.R food/ G.R cash.
- C.I. sheet or House building grant.
- Temporary arrangement of shelter for the distress people during the disaster.
- Winter cloth like blanket etc.
- Tent.
- Sari, Lungi, etc.
- Dry Food – Chira, Gur, High protein biscuit, Soya biscuit, dates etc.
- Baby Food, Milk Powder.
- Utensils
- Medicine/Medical assistance etc.

### ***Vulnerable Group Feeding***

VGF is a form of gratuitous relief. This programme is normally launched during disaster and after disaster till the distressed people remain vulnerable to hunger. It may be stated that the WFP started its relief activities as VGF Programme in Bangladesh among the poorest women from 1975 under project BGD 2226.

### ***Vulnerable Group Development***

VGF has been over the years, transformed into Vulnerable Group Development (VGD). About 5,00,000 women families are getting benefit and each family receives 30 kg of wheat per month. The package also includes:

1. Facilitate training into marketable skills,
2. Encourage the accumulation of seed capital through saving and provide access to credit in order to, build increased earning capacity, and enable them to “graduate” into on-going development programmes.

3. Enhance social awareness through active participation of poor women in groups for functional education and other human development skill training.
4. Improve socio-economic conditions of the poorest women in rural Bangladesh so that they may:
  - more beyond their existing status marked by food insecurity, economic insecurity, and low social status,
  - be able to sustain themselves above the poverty level after further 4 to 5 years period of support beyond VGD graduation from NGO's such as BRAC.
  - The programme is being implemented by joint collaboration with the Ministry of Women Affairs.

### ***Food Security Enhancement Initiative (FSED) Programme***

As per agreement, (signed between MoFDM on 3rd July 2000) DRR is implementing two types of work viz. Road Development and Ground Raising programme jointly with World Vision Bangladesh in 16 Upazila throughout the country under this Programme.

The duration of the programme is from October 2000 to September 2005. Targets of the programme are Construction and Development of road and Ground raising of school, college, market or other public places from 10 decimal to 150 decimal area each. For implementation of the above two programmes, and other components like road-side-tree plantation. Wheat, Peas and Edible Oil provided by USAID are used to implement this programme.

### ***Reducing Disaster Risks of the Poorest through Sustainable Livelihood Development***

In order to reduce Disaster Risk of all kinds of natural disaster including River Erosion, the Government of Bangladesh has initiated a Project named "Reducing Disaster Risks of the Poorest through Sustainable Livelihood Development". It is a new initiative of the Government that demonstrates national political commitment to support the poorest households at-risk living in the most disaster prone areas in the country to develop capacity to manage livelihoods and thereby address disaster risks. The Directorate of Relief and Rehabilitation is implementing this project from government's own resources (Tk. 50 Crore).

The objectives of the Reducing Disaster Risks of the Poorest through Sustainable Livelihood Development Project are

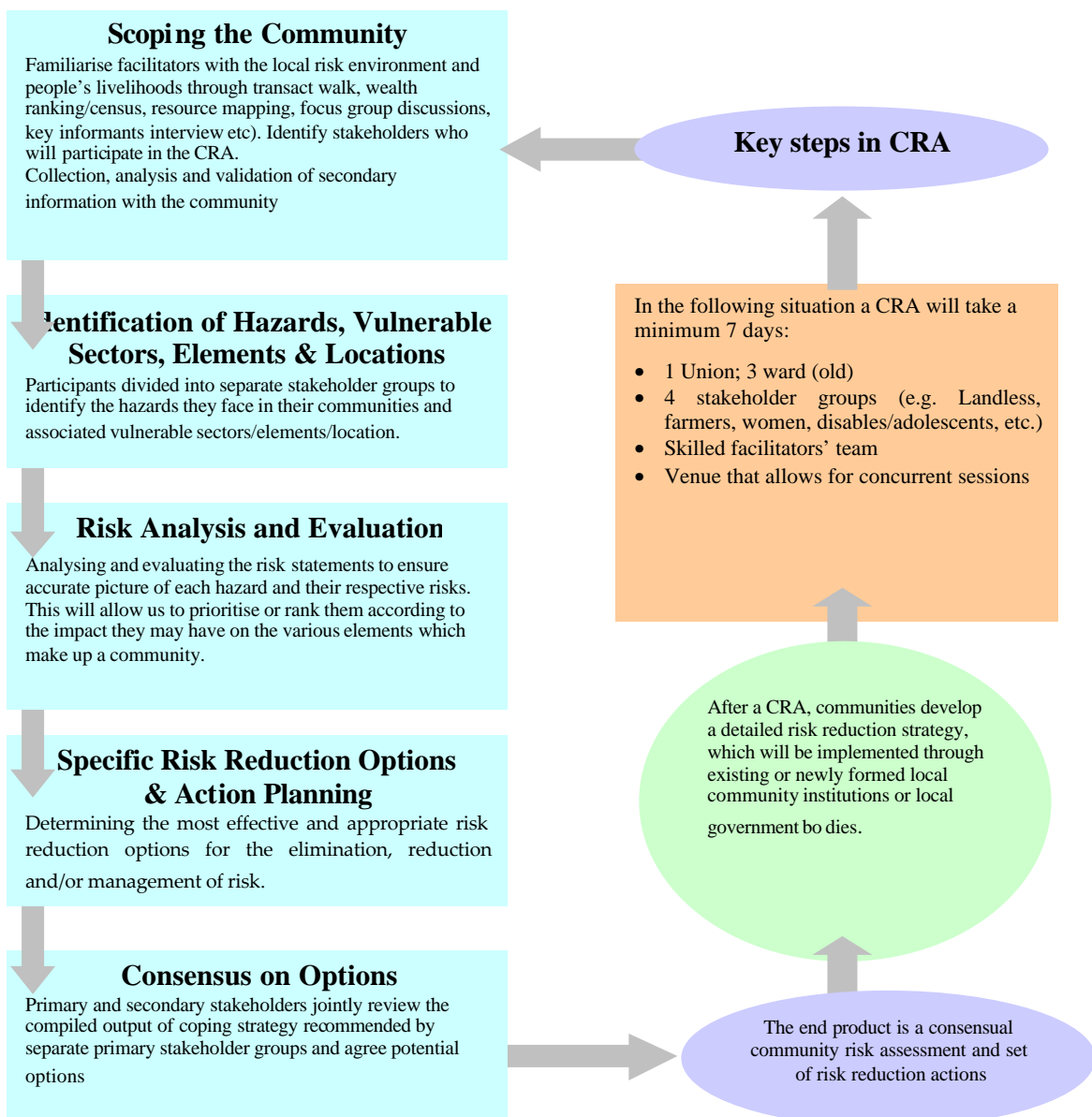
- Reducing Risks and enhancing the long-term development capacity of the poor vulnerable to natural disasters;
- Reducing Poverty by improving the economic status of the poor who are vulnerable to natural disasters to an extent that ensures they do not require support from Relief programs in future;
- Sustainable Development by enabling access to development resources and services for long-term resilience of the targeted households;

The project integrates pre-disaster strategies, post-disaster activities and long-term policy development to reduce the impact of disasters on vulnerable populations by encouraging the maintenance of sustainable livelihoods. The project also demonstrates how to integrate and mainstream relief resources for the poor into their long-term

development by reducing their risks to natural disasters. The poorest most vulnerable to natural disasters cannot recover from the damages of natural disasters only on relief resources. The project will operate for five years, commencing from 2006. The project will be piloted in selected locations in the most vulnerable and natural disaster (flood, cyclone and river erosion) affected areas Bangladesh.

### Existing Resource Allocation Process and New Trends

MoFDM allocates resources based on hazard prone areas. Regular non-emergency allocation is determined based on population ratio but presently GoB is facilitating a community risk assessment process to become more risk specific budget allocation based on priorities of risks and vulnerabilities. Directorate of Relief and Rehabilitation has developed a CRA guideline to determine the need specific programs and budget allocations. The CRA process is as follows.



However, officially there is no process and procedure of declaring an area 'calamity hit' but the existing practice is as follows

The local government provides a damage and situation analysis to local administration and then it is send to the ministry and directorates. Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) and National Disaster Management Council (NDMC) are the entities who can declare the are 'calamity-hit' and declare 'disaster' situation officially. However, this process is not at present de-centralized.

Government of Bangladesh has designed a uniform CRA guideline to conduct community risk assessment in Bangladesh. A CRA working group is also functional to regular monitor and update the guideline under the leadership of Director General of Directorate of Relief and Rehabilitation.

## **VI. Case Studies on Disaster and Development Linkages in Bangladesh**

Case# 1: Development Caused Disasters

In early 50's a vast tract of low lying tidal flood plain in the coastal area of Bangladesh was under regular flooding twice in a day. For many years, these lands used to be protected by dwarf embankment under the initiative of local Zamindars. Paddy cultivation in rotation with fish productions were the main activities of the people of the area.

Dykes constructed by the Zamindars were of inadequate section, low quality and required continuous maintenance. Dykes often collapsed due to hydrostatic pressure and erosive action of wind and current. Drainage facilities provided were also inadequate. After abolition of Zamindari system in Bangladesh, the Government started construction of Coastal Embankment Project in 1961 under USAID assistance. Areas of about 5000 sq. miles were given protection in the districts of Khulna, Barisal, Noakhali and Chittagong.

The Coastal Embankment Project was intended to increase agricultural production by preventing saline water inundation, reducing the flood hazards and preserving sweet water in the internal channel system. Effect of river confinement and future land use pattern were not taken into consideration and century long practice of paddy-cum-fish culture were stopped. An important consequence of the river confinement was the rapid river siltation. This problem was very much pronounced in the western zone of the delta and many of the drainage sluices could not effectively function during the monsoon result inundation within the polders.

In a decade after the CEP project is implemented, river bed started to raise high and drainage congestion started. In 90's the problem become more severe and at least one million people started to suffer from drainage congestion caused water-logging. Now a day this problem has already created permanent disaster situation in the area.

The problems become worse because of non-consideration of peoples' knowledge, experience and not to consider the ecological perspective of tidal basin.

## Case#2 Development Reduced Disaster Risks

Since late 90's government of Bangladesh is constructing schools in coastal belt which is highly appreciated by people, disaster management community and education communities. These schools are built in a way that can be used during emergency period as disaster shelter center for the community. The ground floor of these schools are also open to by-pass the water and its plinth is raised to above flood level to reduce the tidal surge risks. However, this multi-purpose school building program of Ministry of Education has significantly reduces the risks of casualties and loss of properties in the cyclone and flood prone areas.

## **VI. Concluding Remarks**

Bangladesh has indeed made a great stride forward in the field of disaster management. As typical in a disaster prone country, members of vulnerable communities, by the urge for survival, take their own preparations to face and cope with the ensuing disaster. Floods and cyclones are considered main natural hazards for Bangladesh, flood being an annual phenomenon. While scope for preparedness against cyclone was small in the absence of cyclone shelters, flood prone communities had enough to do which always fell short due to resource limitation and non-involvement of the government at preparedness phase. The government would appear on the scene afterwards for post disaster relief and rehabilitation. With inadequate preparedness the damage would be high, so the recovery would also be complicated and costly.

Pursuant to the FAP study of Disaster preparedness (FAP-11) with UNDP assistance, the Ministry of Relief was thoroughly revamped and flood preparedness incorporated in national development agenda. The result was spectacular; with comparatively small investment for preparedness; the damage reduction was very high. This was also corroborated by the pilot projects of action research study of WMO/GWP. UNDP supported MbFDM's CDMP programme will help the GoB and Ministry's vision, mission and objectives to be realized to make a difference. This time we expect that the true paradigm shift will be realized in all level.

The ministry of Food and Disaster Management should continue with its programme of furthering improvement in hardware, software, human resource and skill. In addition, most important would be exchange and sharing of knowledge directly with other countries of the region as disasters know no political boundary:

Inspired by the success of the implementation of DP plans over last few years during big floods, the Ministry of Food and Disaster Management has embarked on a Corporate plan 2005-2009 and also developed a National Plan for Disaster Management to serve as a key management tool to guide the efforts of the ministry in this field. The aim is to achieve a paradigm shift in national disaster management strategies from conventional response and recovery to a more comprehensive risk reduction culture.

It is, therefore perhaps, undesirable to recommend nitty -gritty detail of what the Ministry should do. Only some generalized comments can be made:

- accurate early warning is a pre-requisite to the success of a Disaster Management Programme.
- most important factors of sustainability and reduction of aid-dependence must be considered by planners. Fully functional projects sometime suddenly collapse due to aid-withdrawal. This factor should receive high priority in future plans of the Ministry of Food and Disaster Management.
- Ministry should develop a National Platform for Risk Reduction and will activate the disaster management institutions in a meaningful and functional manner.
- All level communication gaps and information sharing gaps should be minimized by extending the efforts of UNDP funded Disaster Management Information Center component of Comprehensive Disaster Management Programme.
- Directorate of Relief and Rehabilitation should develop their projects based on action plans, which is developed at the Union and Upazila level following the CRA process.
- All relevant agencies should pick up the district level disaster management plans and identify their roles and should design their sectoral programmes in line with the needs and considerations reflected in the disaster management plans for particular district.
- Ministry of Food and Disaster Management should monitor the progress and compliance of the implementation of the disaster management instruments in Bangladesh and that information should be disseminated among the all disaster management stakeholders in Bangladesh
- All the disaster management stakeholders should contribute in realizing the ministries result areas and to achieve the GoB's vision, mission and objectives for disaster reduction which will help to achieve also the Poverty Reduction Strategy targets