

Research Project
on
Interplay of Disaster Management and Sustainable Development:
Legislative and Institutional Role of the Government of Bangladesh

Final Report

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It is innate to have errors in this report for many reasons for which researchers are out rightly responsible. However, these were not intentionally done. If it happens, we effusively welcome your valuable comments for the further development of this research.

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Acronyms

ADPC	Asian Disaster Preparedness Centre
ADRC	Asian Disaster Reduction Centre
APD	Academy for Planning and Development
AFD	Armed Forces Division
BAF	Bangladesh Air Force
BCSAA	Bangladesh Civil Service Administration Academy
BIM	Bangladesh Institute of Management
BIRD	Bangladesh institutes for Rural Development
BMD	Bangladesh Meteorological Department
BPATC	Bangladesh Public Administration Training Centre
BARD	Bangladesh Academy for Rural Development
BBS	Bangladesh Bureau of Statistics
BCAS	Bangladesh Centre for Advanced Studies
BDRCS	Bangladesh Red Crescent Society
BFS&CD	Bangladesh Fire Service and Civil Defence
BGS	British Geological Survey
BNBC	Bangladesh National Building Code
BS	Bangladesh Scouts
BUET	Bangladesh University of Engineering and Technology
BWDB	Bangladesh Water Development Board
CCC	Climate Change Cell
CCDMC	City Corporation Disaster Management Committee
CDMP	Comprehensive Disaster Management Programme
CEGIS	Centre for Environmental and Geographical Information Services
CPP	Cyclone Preparedness Program
CPPIB	Cyclone Preparedness Program Implementation Board
CRA	Community Risk Assessment
CSDDWS	Committee for Speedy Dissemination of Disaster Related Warning/ Signals
CC	Climate Change
CCA	Climate Change Adaptation
CDMP	Comprehensive Disaster Management Programme
CCDMC	City Corporation Disaster Management Committee
CCDRCG	City Corporation Disaster Response Coordination Group
DAE	Department of Agricultural Extension
DC	Deputy Commissioner
DDM	Department of Disaster Management
DDMC	District Disaster Management Committee
DER	Disaster Emergency Response
DIM	Direct Implementation Modality
DMC	Disaster Management Committee
DMIC	Disaster Management Information Centre
DMIN	Disaster Management Information Network
DRR	Directorate of Relief and Rehabilitation
DRRO	District Relief and Rehabilitation Officer
DDRCG	District Disaster Response Coordination Group
DER	Disaster Emergency Response
DFID	Department for International Development

DGHS	Directorate General of Health Services
DLS	Department of Livestock Services
DoE	Department of Environment
DoF	Directorate of Forest
DoL	Department of Livestock
DM	Disaster Management
DMA	Disaster Management Act
DMB	Disaster Management Bureau
DMC	Disaster Management Committee
DMIC	Disaster Management Information Centre
DMIN	Disaster Management Information Network
DMRD	Disaster Management and Relief Division
DoRR	Directorate of Relief and Rehabilitation
DOWA	Department of Women Affairs
DPHE	Department of Public Health Engineering
DRR	Disaster Risk Reduction
DHTW	Deep Hand Tube Well
EOC	Emergency Operation Centre
EWS	Early Warning System
FFWC	Flood Forecasting and Warning Centre
FPMU	Food Planning and Monitoring Unit
FAO	Food and Agriculture Organization
FFWC	Flood Forecasting Warning Centre
GDP	Gross Domestic Product
GIS	Geographical Information System
GOB	Government of Bangladesh
GSB	Geological Survey of Bangladesh
GSB	Geological Survey of Bangladesh
HFA	Hyogo Framework for Action
HBRI	House Building Research Institute
IMDMCC	Inter-Ministerial Disaster Management Co-ordination Committee
IMF	International Monetary Fund
INSARAG	International Search and Rescue Advisory Group
ISDR	International Strategy for Disaster Reduction
IWM	Institute of Water Management
ICT	Information Communication Technology
IDDR	International Day for Disaster Reduction
IVR	Interactive Voice Response
IWM	Institute of Water Modeling
IWFM	Institute of Water and Flood Management
LGD	Local Government Division
LGED	Local Government Engineering Department
LGRD	Local Government and Rural Development
LDRCG	Local Disaster Response Coordination Group
LCG	Local Consultative Groups
MoFDM	Ministry of Food and Disaster Management
MoU	Memorandum of Understanding
MP	Member of Parliament
NDRCC	National Disaster Response Coordination Centre
NDMC	National Disaster Management Council

NGO	Non-Government Organization
NILG	National Institute for Local Government
NIPSOM	National Institute for Preventive Social Medicine
NPDM	National Plan of Disaster Management
MDGs	Millennium Development Goals
MoD	Ministry of Defence
MoFDM	Ministry of Food and Disaster Management
PDMC	Pourashava Disaster Management Committee
PDRCG	Pourashava Disaster Response Coordination Group
PIO	Project Implementation Officer
PMO	Prime Minister's Office
PRA	Participatory Rural Appraisal
RDA	Rural Development Academy
RR	Risk Reduction
RRAP	Rural Risk Reduction Plan
RRAP	Risk Reduction Action Plan
SAARC	South Asian Association for Regional Cooperation
SDMC	SAARC Disaster Management Centre
SFA	SAARC Framework for Action
SOD	Standing Orders on Disaster
SPARRSO	Space Research and Remote Sensing Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
UNO	UpazilaNirbahi Officer
UZDMC	Upazila Disaster Management Committee
UZDMP	Upazila Disaster Management Plan
UDMC	Union Disaster Management Committee
UDRCG	Upazila Disaster Response Coordination Group
UNDP	United Nations Development Programme
WAPDA	Water and Power Development Authority
WDMC	Ward Level Disaster Management Committee

Interplay of Disaster Management and Sustainable Development: Legislative and Institutional Role of the Government of Bangladesh

Abstract

Since the late 1990s, discourse of mainstreaming disaster management into development in Bangladesh was evolved. In reality, absence of governance is hindering the professional spirit of overall disaster management programs in Bangladesh where intersection between DM and development is apprehensive. No doubt, mainstreaming of DM issue in a cohesive way into the development planning and processes that refers to engagement in a methodical inclusive effort to reduce the risks of probable damages happened due to natural factors or development process. At a national level, disaster risk reduction is a crosscutting issue that desires to be accelerated by all government organizations rather than by a single department, Department of Disaster Management (DDM) under the guidance of the Ministry of Disaster Management and Relief. Department of Disaster Management (DDM) is the authorized agency to prepare and implement a sustainable disaster management risk reduction framework. Without execution, the policy framework of sustainable disaster management is a meaningless application that will cause in top down explanation imposing float up answers. Therefore, level of enforcement of legislative obligations as well implementation of the Disaster Management programme by the concerned disaster management institutions would be unveiled with this endeavor. National policy and strategies for integration of DRR in emergency preparedness, response and recovery programmes in the light of national level policies pertaining to the DRR for the reconstruction of affected communities are still remain challenge for the Government of Bangladesh to accelerate the paradigm shift from the relief culture to the DRR culture. The emphasis of this study was to study and learn about policy framework of the government of Bangladesh in DRR. In line with the policy framework, this study also aims to assess the viewpoint on how political economy influence the government of Bangladesh on governance and institutional strengthening to help identify obstructions and opportunities for mainstreaming Disaster Management into development and how does governance work in the implementation of DM programmes in Bangladesh. In addition, initiation and implementation of community exposure to disaster vulnerability respond to the Disaster Management also a major area of this study.

Keywords: *Disaster Management, Disaster Risk Reduction, Community Exposure on Disaster Management, Disaster Vulnerability, Sustainable Development*

Chapter one: Introduction

Bangladesh is one of the disaster prone countries in the world. The geophysical location, land characteristics, river system, and the rainy season climate render Bangladesh highly vulnerable to natural hazards (MoDMR, Government of Bangladesh, 2012). The coastal morphology of Bangladesh influences the impact of hazards on the area. Since independence in 1971, the country has tolerated nearly 200 disaster events causing more than 500,000 deaths and colossal damage to the national economy (Government of Bangladesh, 2008). It is found that about 24 % people live below poverty line including about 12% who live below extreme poverty; about 30 million people are likely to be affected by sea level rise. Because of disaster vulnerability, Bangladesh topped for flood, ranked 3rd for tsunamis and 6th of cyclones with a loss of 14% GDP per year. Bangladesh experienced 219 natural disasters with on an average seven per year causing more than USD 16 billion in damage (UNDP, 2018). Bangladesh experiences various types of disasters around the year mostly concentrated from April to October (Fig. 1.1)

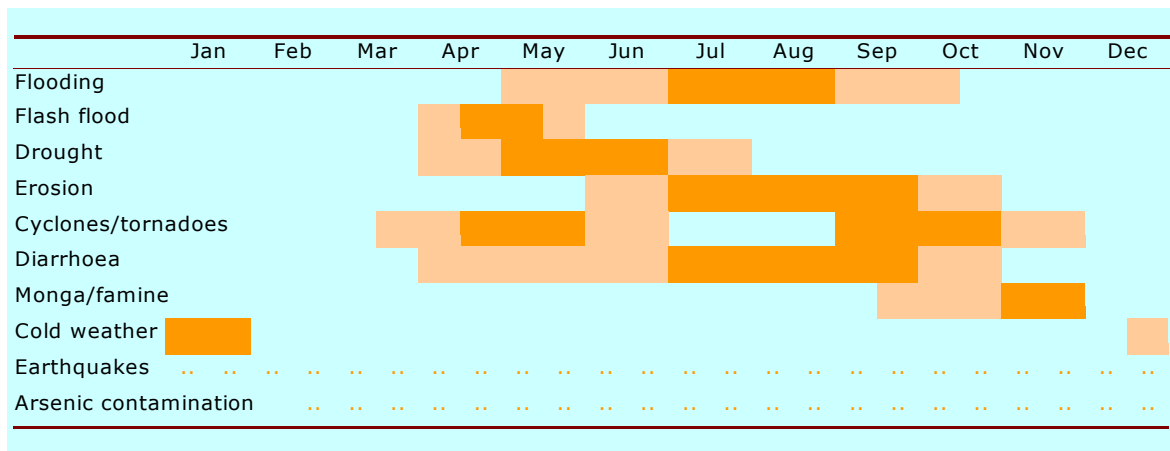


Figure 1.1: Disasters Calendar of Bangladesh

Source: World Food Programme Bangladesh, 2011

In order to bring a transformation in disaster management from orthodox response and relief practice to a more inclusive risk reduction culture, Bangladesh Government endeavors to define the vision of disaster management (Government of Bangladesh, 2012). Consequently, legislative and institutional set up have been redesigned to expand the concept of Disaster Management (DM). For example, Standing Order on Disasters (SOD, first published in 1997; revised in 2010 & finally in 2019), National Plan for Disaster

Management (NPDM) and Disaster Management Act 2012 are the best examples of legislative development. The NPDM from 2010 to 2015 made a fair attempt to assimilate disaster readiness in the long-term development plan. As a signatory to the Hyogo Framework for Action from 2005 to 2015, Bangladesh extended best efforts in attaining through a clear paradigm shift from relief centric disaster management to DRR. Besides, Ministry of Disaster Management and Relief and its affiliated department known as Department of Disaster Management imply the presence of institutional aspects of DM in Bangladesh.

Since the late 1990s, discourse of mainstreaming DM into development in Bangladesh was evolved (CDMP, 2014). Bangladesh Awami League after assuming the office revisited the vision and objectives of Comprehensive Disaster Management Project (CDMP) Phase II and launched the programme in late 2009. The political government under the leadership of Prime Minister Sheikh Hasina for the first in the history of Bangladesh mainstreamed the concept of DRR with the enactment of legislature and institutional rearrangements from national level to local level. In reality, absence of governance is hindering the professional spirit of overall disaster management programs in Bangladesh where intersection between DM and development is apprehensive. The important question is thus framed as whether community exposed to natural disaster vulnerability would be able to minimize the loss and damage associated with probable disaster in consequence of the appropriate legislative and institutional arrangements of the government of Bangladesh. With these edges, this research project addresses two research questions: How does legal and institutional framework of the government of Bangladesh speed up mainstreaming Disaster Management into development process? And to what extent, Disaster Management mainstreams into development process of the government of Bangladesh? Some of the sub-questions derived from the main research questions were as follows:

1. How does political economy influence the government of Bangladesh on governance and institutional strengthening to help identify obstructions and opportunities for mainstreaming Disaster Management into development?
2. How does governance work in the implementation of DM programmes in Bangladesh?

3. How does community exposed to disaster vulnerability respond to the Disaster Management programmes initiated and implemented by the government of Bangladesh and humanitarian actors?

Objectives of the Research

Following the research questions of the study, three objectives of this research are formulated to achieve which include are to:

1. Understand and examine how political economy influences the government of Bangladesh on governance and institutional strengthening to help identify obstructions and opportunities for mainstreaming Disaster Management into development.
2. Examine the governance mechanism working in the implementation of DM programmes in Bangladesh; and
3. Identify and analyze how community is exposed to disaster vulnerability respond to the Disaster Management programmes initiated and implemented by the government of Bangladesh and humanitarian actors.

Significance of the study

DM refers to implement in systematic and comprehensive effort to reduce or eliminate risks of prospective damages happened due to both natural and human induced factors. This systematic engagement should be mainstreamed in the development planning and process to address the risks to get better results. To retain the sustainability in development, national government of the disaster prone country must attempt to decrease the susceptibility of the poor to the effects of natural disasters by a) adopting a paradigm shift in DM to a more comprehensive risk reduction culture from the traditional response system; b) establishing the legislative and institutional capacity of the national DM system in improving both response and recovery management at all levels. As a disaster prone nation, Bangladesh seems less attentive to mainstreaming DM into development process although in the recent time, government with the endless stimulation of international actors are beginning to realize that risk identification and management measures should establish an integral part of their progress planning. The importance of the study was:

- To ascertain underlying causes of the failure of DM mainstreaming into development process in Bangladesh;
- To support to the preparation of healthy DM framework, policy and business strategies of the Government to speed up mainstreaming Disaster Management into development process;
- To help the Government of Bangladesh to reform existing governing modality to help identify obstructions and opportunities for effective accomplishment of DM programming;
- To enhance importance to the body of knowledge in Bangladesh as there are partial number of studies that contribute to Disaster Management for sustainable development; and
- To enhance significance to policy, encourage investments and to protect helpless communities exposed to natural disaster.

Organization of the Report

The study comprises of five chapters. First chapter provides an overview of the study capturing issues of the problem, research questions and explanation of conducting this research. The second chapter is a description of literature review on disaster management related issues, acts, models and coordination in order to provide summary idea of the subject matter. There is a methodological description in the chapter three how the research has been carried out and justification of data collection tools and techniques. The next chapter comprising of two parts is the main part of the study as it shows the data analysis and findings where part A analyzes the secondary data while part B discusses the primary data collected from the field. Final Chapter is about the conclusion and way forward. It likewise indicates the policy implications.

Chapter Two: Literature Review

Linking with public policy in Disaster Management exploration becomes one of the key challenges in susceptibility research, particularly in reducing the impacts of hazards. Nevertheless, measuring the linkage between development and DM is still one of the main encounters indicated in the key literature such as Adger (2006) and Adger et al. (2004). It is noticed that lack of discussion of fundamental issues and relevant adaptations that may impact the level of vulnerability at upcoming time. Researchers remarked that frailty factors and certain actions of various stakeholders and their adaptations strategies affect the level of vulnerability (Blaikie, Cannon, Davis & Wisner, 1994). In the context of Bangladesh, the majority of studies on disaster management dealt with extent of natural disaster and disaster response management; underlined the disaster response & recovery aspects and roles and responsibilities of the government of Bangladesh together with relevant stakeholders (DDM, 2012; Wisner, 2004). Over the last two decades, disaster management stakeholders are in regular discussion with the government of Bangladesh to integrate disaster reduction considerations in the development planning policies and programmes upholding the spirit of governance nexus DRR on the top (Hasan, et al. 2019). Because of their deliberate involvement in the strategy design and review process, an intersection of DM and development has gained optimism in Bangladesh.

No doubt, mainstreaming of DM issue in a cohesive way into the development planning and processes that refers to engagement in a methodical inclusive effort to reduce the risks of probable damages happened due to natural factors or development process (Coppola, 2007). As a result, Bangladesh is considered as the learner of this movement. Only just, relevant stakeholders (the government of Bangladesh, development partners and other non-government actors) have realized that risk identification and management measures should establish an essential part of their expansion planning. Poorly premeditated and managed metropolitan development, environmental dilapidation, poverty and disparity and fragile governance tools continue to drive rapidly-increasing loss and harm associated with wide threat in Bangladesh.

Disaster Management approaches in Bangladesh harmonizing systematic inquiry of Disaster Management in Bangladesh is not well conversant in the available literature. Moreover, this approach taken from different programmes at national, international and community level, which is not redeveloped, aligned with the field experiences and theoretical viewpoint (Shaw, Mollik, & Islam, 2013). As a result, drawbacks in the policies as well as in the implementation of DM in Bangladesh are apparent. Lack of coordination among different stakeholders hampers quick response in times of emergency response as well as DM.

Disaster Management in Bangladesh- an Overview

In order to mend its ways, the legal and institutional frameworks pertaining to disaster management (DM) has been apparent over the years. It is deceptive that, legislative actions and structural set up have duly apprehended the essence of disaster management as an integral approach of Disaster management system of Bangladesh. Paradigm change from relief and recovery culture to risk reduction culture have been streamlined through Disaster Management Act 2012 and Standing Orders on Disaster (revised in 2010; 2019). It is also evident from the study findings that; Bangladesh is well ahead with DM laws where comprehensive disaster management is duly aligned nevertheless level of enforcement is not well-run regrettably. Henceforth, relevant stakeholders are to be endowed to execute laws/policies under the auspicious of the national government to get all-out advantage out of DM Laws.

The Sendai Framework for Disaster Risk Reduction (SFDRR, 2016-2030), adopted in March 2015, calls for a transformed focus on studying and firming up legal frameworks. Disaster management laws are devoted to beginning the priorities, institutional directives and a number of other features of a national disaster management system (Burlington: USA, 2007). The geographic location and low-lying appearances of Bangladesh marks it more exposed and susceptible to diverse natural and climate-induced disasters. It is the world's third most vulnerable state to

sea-level increase in terms of the number of people, and among the top ten states in terms of percentage of people living in low-lying coastline zones. Since freedom, Bangladesh has been pre-emptive in articulating several policy frameworks like Standing Order on Disaster, Bangladesh National Building Code etc, but in many cases, our accomplishments are not creditable in executing the policy frameworks. Bangladesh was earliest to visualize the DM Act among the south Asian countries in mid 90s but it took over 20 years to catch the DM Act enacted. Many countries like India and Sri Lanka took Bangladesh as an instance and authorized DM Act 2012 and SOD quite earlier. Bangladesh has formed a simplistic model to monitor disaster management and emergency response supervision efforts in Bangladesh.

Since Independence the country experienced a number of major disasters with severe intensity like the 1991, 2007 and 2009 cyclones and 1987, 1988, 1998, 2004 and 2007 floods in addition to many small scale calamities (Department of Disaster Management: Dhaka, 2012).

No	Date	Disaster	Total killed	Total affected
1	20 August 1988	Flood	1517	73000000
2	29 April 1991	Cyclone	138,866	15,438,849
3	13 May 1996	Tornado	545	34,000
4	8 July 1998	Flood	1050	15,000,050
5	12 August 2004	Flood	747	36,000,000
6	1 September 2007	Flood	1110	13,771380
7	15 Nov,2007	Cyclone	4234	89,23259
8	25 May 2009	Cyclone	330	50,000
9	27 June 2012	Landslide	122	3,62465
10	13 May 2013	Cyclone	17	1,28550

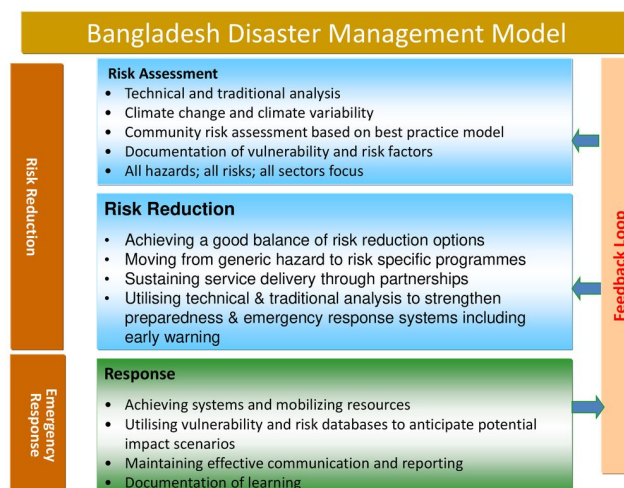
Source: Department of Disaster Management, MoDMR, GOB

Unlike many other countries, Bangladesh started its disaster management policy and institutional reform in mid-nineties by proceeding with the Standing Orders on Disaster (SoD), first issued in 1997. The SoD defined mainly the response related roles and responsibilities of different actors & players and created the national, district and upazila level Disaster management Committees (DMCs) for managing disaster in a coordinated* manner. Yet, it did not carry much legal value despite being a prime policy document on disaster response management. The National Policy for Disaster Management (NPDM) and the National Disaster Management Plan has proved their importance for strategic guidance but similarly lacked the bindings or enforcement from legal viewpoint. The civil society organisations were repeatedly pushing the government to formulate effective disaster management policy. Finally government enacted the Disaster Management Bill 2012 that appears as success in this area.

Disaster Management Model in Bangladesh

It has three key elements in the model and it guarantees that the change to an extended comprehensive risk reduction tradition remains fundamental to all efforts.

Figure 2.1: Disaster Management Model in Bangladesh.



* The coordination of disaster response is demanding as it involves requirements typical of an emergency or peaceful situation that include for example, high uncertainty and necessity for rapid decision making and response under temporal and resource constraints.

Source: MoDMR, GoB

This component of the model endorses the use of scientific breakdown (including climate change effects) as the basis for correctly determining the upcoming risk environment comparative to all hazards, all sectors and all geographic areas. In accordance with the Disaster Management Model, to improve actions for managing threat (risk treatment possibilities) the risk environment must first be defined (MoFDM/MoDMR: Dhaka, 2008). Defining the risk environment makes knowledge of the interface of hazard and the fundamentals at risk (community) and is conducted in a organized and analytical procedure. Defining the risk environment includes both the traditional and recognized hazard analysis, and contains different stage such as establishing the context for socio-political environment; categorizing hazards and risks analyzing the risks to understand consequences; estimating threats and identifying risk action plan to eradicate vulnerability.

It endorses the strategy of risk reduction approaches i.e. community based adaptation programmes (Naseen, 2016). The process includes prevention, preparedness, response and retrieval programmes with a view to enable societies to recognize the risk environment and how proactive strategies can contribute to reduce the risks (Ahmed and Islam, 2012). It entails new features of table of contents, list of definitions and abbreviation, regulative framework outline of DM, core groups for responding at several levels, multi-agency incident management method, responsibilities of different committees and agencies for risk reduction, new frameworks for local level plans, storm warning signals, reporting on cyclone shelter design, a revised form 'D' and two new supplements that comprises of specific role linking to earthquake and tsunami hazards (DMB, 2010). The disaster management framework delivers the relevant legislative, strategy and best practice framework under which the action of Emergency Response Management (ERM) in Bangladesh is accomplished and implemented. The framework is encompassed of:

- Disaster Management Act
- National Disaster Management Policy (to be formulated and adopted)
- National Plan for Disaster management
- Standing Orders on Disaster (SOD)

- Guidelines for Government at all Levels (Best Practice Models)

Guidelines for Government at all levels are developed as best practice models, and are used to support Ministries, NGOs, disaster management committees and civil society in applying disaster risk management. Guidelines will include, among others (DMB, 2013):

- Community Risk Assessment (CRA) Guideline
- Disaster Impact, Damage, Loss and Need Assessment Guideline
- Local Disaster Management and Emergency Fund Management Guidelines
- Indigenous Coping Mechanism Guidebook
- Hazard Specific Risk Assessment Guidelines for Earthquake, Flood, Cyclone, Fire, Drought etc.
- Emergency Response and Information Management Guideline
- Contingency Planning Template
- Emergency Response Management Guideline
- Disaster Information Management Guideline
- Sectoral Disaster Management Planning Template
- Natural Disaster Risk Incorporated Local Level Planning Template
- Guidelines for Road, Water, Industrial and Fire safety
- Guideline for Disaster Shelter Management
- Monitoring and Evaluation Guideline for the Implementation of the Plan
- Guideline for International Assistance Management in Disaster Emergency
- Multi-Agency Disaster Incident Management Guideline

Disaster Management Act 2012

The Disaster Management Act 2012 outlines objectives, approach, institutional arrangement, disaster area declaration, priority group, information management and media, funding, offence and trial, reward, international cooperation, priority actions. The act aims at achieving the objectives of diminishing overall disaster risks by undertaking appropriate interventions; implementing emergency response and recovery measures more effectively during and immediately after the disaster; providing emergency humanitarian support to the most vulnerable communities; strengthening the capacity of the government and non-government organization for

effectively coordinated efforts to produce; and establishing a disaster management system so that it can handle all hazards effectively (MoDMR, 2021)

Disaster Management Institutions in Bangladesh

In the light of DM Act 2012, the Ministry of Disaster Management and Relief has been assigned with the roles and obligation for managing national disaster management efforts through all agencies. Under the Ministry of Disaster Management and Relief, Department of Disaster Management (DDM) has been established after endorsement of the Disaster Management Act. The Department has been authorized to implement the objects of Disaster Management Act by diminishing the overall susceptibility from different impacts of disaster by undertaking risk reduction actions; conducting humanitarian assist programs proficiently to boost the capacity of poor and disadvantaged as well as firming up and coordinating programmes undertaken by various government and non-government groups related to disaster Management and emergency response. DDM is responsible to implement the instructions, recommendations by the Government in connection with disaster Management as well as the national disaster management philosophies and planning (UNDP, 2014).

As per Disaster Management Act 2012, disaster management in Bangladesh continues to be guided by the policy and strategic directives of the National Disaster Management Council directed by the Hon'ble Prime Minister. A National Disaster Management Research and Training Institute is to be created while a National Volunteer Corps be established with the existing Cyclone Preparedness Programme† (CPP) volunteers and the urban volunteers being established by the Department of Fire Service and Civil Defense.

Effectiveness of Disaster Management Coordination in Bangladesh

It is found that active coordination is considered as the significant element of disaster management. since the disaster response contains the requirement of

†The Cyclone Preparedness Programme (CPP) established in 1972, after the devastating cyclone of 1970 that perished half a million lives, the League of Red Cross, now the International Federation was requested by the UN general assembly to undertake a leading role in pre-disaster planning for the country. In June 1973, the Government of Bangladesh approved CPP programme.

typically designed emergency situation or peaceful situation comprising the higher uncertainty, rapid decision making and quick response in an resource constraint condition and under temporal phenomenon (Harlow & Essex, 1999). Maintaining a standard coordination system in a crisis moment is more crucial and challenging because of involvement of multiple issues such information ambiguity, occurrence of unpredictable events, risk of plausible loss, high time pressure, severe scarcity of resources, possibility of effects and destruction at mass scale, disruption of communication, infrastructure and maintenance of basic service such as electricity, water supply, transportation. This coordination necessitates at all three stages pre, during and post disaster where every stage is important whereas during disaster demands most urgent actions.

As the humanitarian agencies act individually based on their response planning accompanied by their diverse objectives, coordination of disaster response, thus, appears as extremely challenging to achieve the purpose and align to common goal. There were fewer numbers of cyclone or flood shelters than it was necessary. It is revealed that mobilizing sufficient skilled manpower during disaster or after is also a difficult that frequently faced by the department of Disaster Management. Further, local level disaster management committees lack of clear understanding and skills of assessing needs, storing data, compiling and analyzing data that result in weak coordination. This shortcoming is clearly visible at district and Upazila level. Deputy Commissioner as the head of the district disaster management committee, Upazila Nirbahi Officer as the Upazila disaster management committee (UDMC) cannot deny their failure as they are the part of the government where are entrusted to act on behalf of the central government. Political leadership is also an issue for the incoordination. Various sources demand that inexperience and lack of professionalism serve as the obstacle to handle the overall situation that ultimately affects the disaster management system although they have been given the legal authority take up all efforts in this regard. Political direction at local level is not elaborate to lead the disaster management and therefore, people's curiosity and sense of responsibility are not replicated. People uncovered to disaster vulnerability are deprived and they never get admittance to know what sort of disaster management programme with the volume are premeditated and implemented by the Upazila and District administration in Bangladesh. It is also found that head who is

usually the Chairman of the Union and members of Disaster Management Committee at Union level are not skilled to run the committee to materialize the activities.

The study found that UDMC members are accustomed to follow the traditional way managing disaster which in turn demands different approach because of its nature and rather than following the standing instructions. That's why the UDMC members are found less active and dynamic in improving the awareness among the public in terms of disaster issues and training to handle these whereas they can significantly play the key role at the local level in reduction of threat.

The act has the provision of inclusion of two women in each DMC so that the decision at level becomes more inclusive and women-friendly in order to mandatorily include the big portion of the community. However, this inclusion could not show significant impact that the reasons are likely to have the incapability of women to contribute or influence the DMCs. The secondary data sources identified a number of areas where DMCs need to build the capacity for better management to get most out of results. On the contrary, these data also reveal there are number of areas where DMCs are not functioning well. It is seen that elected public representatives at Local Government Institutes i.e. Union and Upazila are the key actors for playing key role in disaster management. However, they cannot utilize funds for managing disaster as this funds are distributed at national level with the help of district administration. This system basically makes Union and Upazila level leaders inactive. Moreover, the funds and allocated resources are deemed insufficient to effectively contribute in reducing risks and hazard during and after disaster mainly because of demands and need of huge population who are affected directly or indirectly.

Human persuaded and technological disasters are becoming more prominent in the disaster management that necessitates a holistic approach where collaboration of private section in DMCs at various levels is deemed as undisputable (UNISDR, 2004).

Chapter Three: Methodology

In order to achieve the objectives of the study i.e. influence of institutional mechanism on disaster management; implementation of disaster management programmes and the response made by the disaster vulnerable community, the study requires both content analysis and qualitative approach. The study applied qualitative approach because the study dealt with disaster vulnerable community that qualitative methodology. In this study all the data were collected from both primary and secondary sources. The study made an attempt to analyse the legislative and institutional dimensions of the government of Bangladesh in order to understand the implication of DM initiatives on the areas where people are exposed to the natural disaster vulnerability. In view of the different kinds of natural disasters, this study has been conducted in two locations of Bangladesh: *Sarankhola* Upazila of Bagerhat district and *Chauhali* Upazila of Sirajganj. Both data collection areas were purposively selected considering first one as cyclone prone in the coastal area and second one as flood prone area. Moreover, these two locations are also exposed to different types of disaster.

Key informant Interview

For primary data collection, a total 40 with 20 from each location were selected to interview. **The study used the non-probability sampling for selecting the research participants, as it is a qualitative study.** Based on the checklist prepared to achieve the objectives of the research, informants were interviewed. Key informants have been categorized into two cluster/group such I) Disaster Management Officials of the Government of Bangladesh and DM Professional working in local NGOs to Donor agencies; and II) Academicians; Journalists; Local Elites and so on. Hence, the study applied sampling method to define key informants for the semi-structured interviews. The key informants were selected from four professional groups mentioned above by considering cluster sampling to ensure the inclusion of key informants who are able to cover a diverse range of issues. Ten (10) from each cluster/group are interviewed over phone/skype. Those specific stakeholders were defined as key informants in the semi-structured interview stage. A semi-structured questionnaire also carried out to facilitate face-to-face interview of the key informants. Again, instead of face-to-face interview, the research team had to rely on phone/skype interview because of COVID-19 pandemic.

Secondary data collection

The sources of secondary dataset include collection and study of relevant books, journals, research reports, seminar reports, reports of NGOs/INGOs/Donors working on DM in Bangladesh, unpublished documents; editorials of major or national newspapers and internet sources. Relevant policies of the Bangladesh government pertaining to the subject matter of the research have been thoroughly reviewed to understand the legislative and institutional arrangements of the government of Bangladesh on DM. This provides clear understanding and coherence of relevant concepts, issues and frameworks.

Special Delivery

Like any sector is affected by the unprecedented COVID-19, the research was also highly affected and that forced to follow the special mechanism to collected data. Emphasis was also shifted from rigorous process to comfortable approach in line with the COVID-19 health protocol. As the qualitative research and ethical perspective value people's wellbeing, comfortability of informants were considered. Since data was collected during the peak time of coronavirus spread and restriction was strictly followed, FGD was dropped. The study utilized content analysis, which was likewise strengthened by the primary data collected through various means.

Chapter Four: Part A

Analysis of Secondary Data and Findings

This part mainly discusses the interplay of Disaster Management and Sustainable Development in rural Bangladesh based on the data collected from secondary sources. This sections deals with the answer to first two research questions how political economy influences the government of Bangladesh on governance and institutional strengthening to help identify obstructions and opportunities for mainstreaming Disaster Management into development; and how governance works in the implementation of DM programmes in Bangladesh. Disaster management and Sustainable Development are intertwined for formulation of policies, implementation of mechanism and greater wellbeing for the humanity.

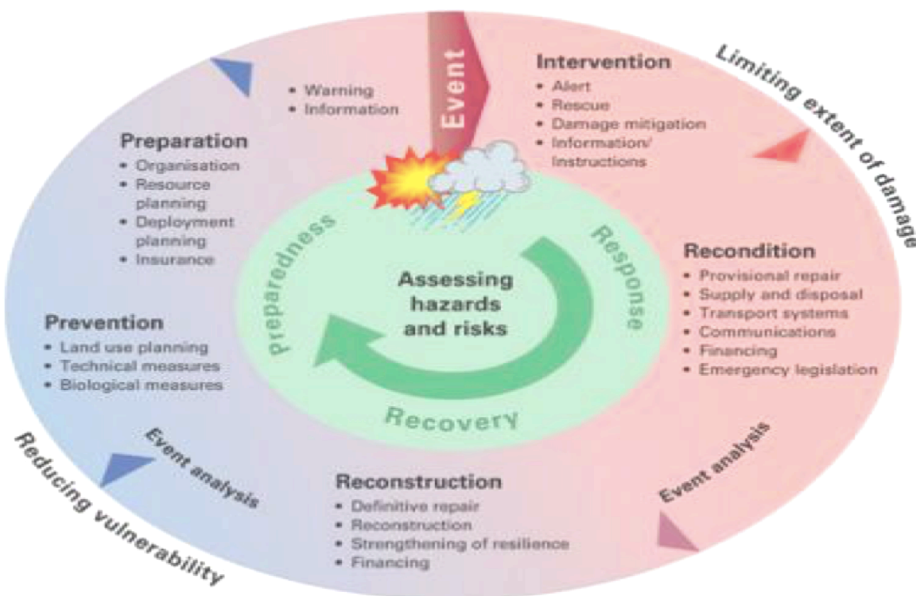
Disaster Risk Reduction (DRR) and Public Policy: Interplay

Disaster risk reduction (DRR) is characterized as the framework of reducing frailty in a community following prevention and imitating the adverse impacts of hazards. It expands its focus beyond the framework that includes knowledge formation and sharing, creating public commitment, establishing institutional framework, and effective resource supervision, redefining early working and response system. This technique has contributed to the management of disasters in a more practical and systemic approach. It is noted that conventionally humanitarian aid groups regarding the disaster response and relief work on long-term development actions. However, there is wider area on readiness, prevention and resilience, which are unaddressed. Astonishingly, the projects on sustainable livelihood focus on the structure targeting strengths and opportunities rather reducing risks.

Phase-wise response framework of comprehensive disaster management

It is significant to discuss about the response framework in the light of three phase of inclusive disaster management. What we have found from the below phase-wise framework in responding to disaster are stated here.

Figure-3.1: Phase-wise response framework of comprehensive disaster management (Hewitt, 1999)



According to this response framework developed by Trobe and Davis, pre-disaster phase denotes identification of probable risk associated with future disasters and take necessary action plan to mitigate the probable risk with the involvement of community. Pre-disaster phase also prioritizes formulation of rules and regulations as well as coordination with concerned department of the government and non-state actors. In this phase, suggested actions should be (a) community risk assessment; (b) risk mitigation plan; (c) modernization of early warning; (d) capacitate volunteers for search and rescue operations; (e) preparation of emergency and early recovery guidelines; (f) construction of community shelter centers; (g) stock of emergency relief items at the Upazila headquarter of disaster prone areas; (h) awareness building on how to cope with the challenges of disaster; and (i) resource mobilization.

Disaster Risk Reduction and Global Policy Enforcement

Five challenges including i) governance, ii) risk identification, assessment, monitoring & early warning, iii) knowledge management and education, iv) diminishing underlying risk factors, v) preparedness for effective response and recovery identified by the Hyogo Framework of Action (HFA) (2005-2015) were adopted by 168 countries at the UN World

Conference on Disaster Reduction (Figure 3.2). This framework forces to signatory nations to report periodically the growth of accomplishment in those areas.

Figure-3.2: HFA five priority of action (SDMC, 2009)



According to HFA five priority of action, disaster risk reduction is a comprehensive approach where research is equally weighed as an important device to unveil the probable risk associated with disasters. For example, in the HFA second priority of action symbolizes the essence of research and innovation to learn about the adverse impact of disaster and to find out appropriate strategies to mitigate those risks. DRR is to be streamlined with the enactment of rules and regulations for integrating it into development process of the government.

HFA first priority of action clarifies the same. DRR is a process through which a vibrant community is anticipated which will be very much aware about the adverse impact of disasters to apply the DRR techniques for risk minimization. National government who is the signatory of HFA should act with utmost sincerity to be vigilant and well prepared to undertake necessary action plan in the light of five HFA plan of action.

Linkage of Disaster Risk Reduction with Sustainable Development

It is found that the HFA, which is sponsored by UN, emphasizes on building the resilience of nations and communities to disasters and incorporating the disaster risk considerations in the sustainable development processes to adopt as the key approach. Although the decrease of underlying risk factors including environmental, social and economic activities has been prioritized as one of key issue, government has least progress in this regard. Emphasis of DRR in the SDGs has been a policy obligation for the government to significantly contribute as government agreed to accept HFA (Medina, 1992).

There are some ways to measure disaster where the outcome of an ongoing risk process is treated as one of important measure. It identifies the existing circumstances of hazards, exposure and vulnerabilities that generate disaster risks. Researcher remarked that the possibility of risks or uncertainty has the higher degree of producing frailty over time and becomes apparently as issue of creating damage in wider scale at the time hazardous attack (Coppola, 2007). He further added that this is the radical shift from earlier concepts or ideas which were treated either as acts of God or as natural event. *To achieve seven targets as per the Sendai Framework for Disaster Risk Reduction (SFDRR), the government of Bangladesh particularly the MoDMR has taken necessary steps with strategic planning in collaboration with the development agencies including UNDP.*

Disaster Risk Reduction: Issues and Challenges

Priorities

It would not be realistic to improve in every area of DRR because resource constraints and issues of capacity enhancement are involved. Government and relevant other organisations need to prioritize about the investment decisions, identification of areas, fixing the time and order for intervention. Utilizing the scarce resources, there should be initiatives that may produce effective result in achieving the objectives. It is noticeable that many initiatives are found developmental rather than directly connected to disaster management that most prevailing DRR directions bypasses this issue and keeps aside.

DRR and Governance

Policy documents and researches emphasize on redefining the role of the government in reducing disaster that requires different DRR tactics. Central government is thought to be main actors in DRR because they are constitutionally given the responsibility to guarantee the safety of the citizens and their resources, to initiate and implement DRR programmes at large scale, to coordinate tasks of other bodies through formulation of necessary policy and legislative frameworks (ADB, 2004; Hasan, et al. 2019; Nasreen, 2021). As such, these policy frameworks and programmes must be comprehensive so that success comes out from the total process and system. If not well coordinated and these lack clear direction, the total programme may not produce successful result in disaster management. Probably the lack of proper policy drives in governing the DRR programmes produce unsatisfactory outcomes that must be addressed.

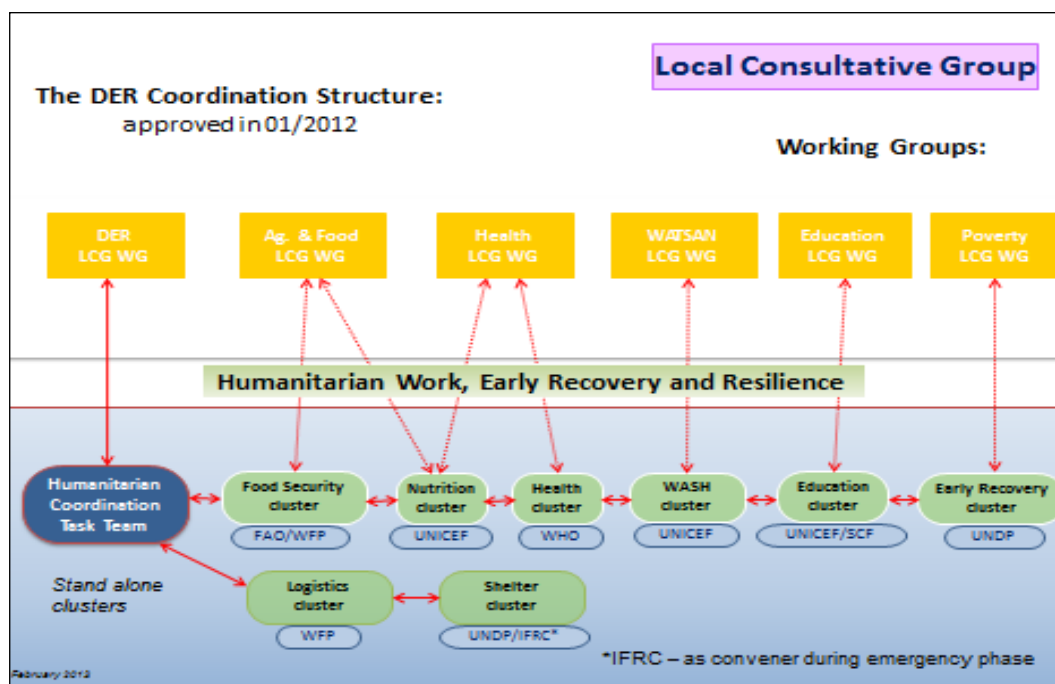
Donor Driven Disaster Risk Reduction Programme in Bangladesh: Question of Dependency

It is significantly noticed that donors' initiatives contribute in Bangladesh at the time of disaster and after disaster. Their influence and involvement inhibit the total systemic development to be administered by the government. The Local Consultative Group on Disaster and Emergency Response (LCG-DER) is the central forum of government and donor agencies of undertaking decision and sharing ideas, information on the DM as this group has the option of inclusion of relevant stakeholders. The Chair and Co-Chair of LCG-DER are the Secretary, Ministry of Disaster Management and Relief and Co-Chaired by the UN Resident Coordinator respectively which means how powerful body it is (UNRCO and MoFDM, 2012; Nasreen, 2016). These initiatives and decisions are influenced by the donors as they provide fund and they knowledge and expertise. It is also found that the DER is assigned to maintain and ensure the effective coordination between national and international stakeholders in some areas such as risk reduction, preparedness, response to disaster and rehabilitation. The areas are broadly covered.

The LCG-DER agreed to transform Humanitarian Coordination structure following an in-depth review of the humanitarian coordination system in Bangladesh in January 2021 that the structure includes the Humanitarian Coordination Task Team (HCTT). The HCTT has

eight humanitarian clusters e.g. Food Security, Nutrition, Health, WASH, Education, Shelter, Early Recovery and Logistics (Economic Relations Division and MoFDM, 2012). Each cluster's lead agency is tasked with a synchronized, timely and comprehensive response among partners in their respective sectors in close association with the relevant line ministries and in sustenance of the government response plan.

Figure 3.3: The DER Coordination Structure



Source: LCG-DER Coordination Tree, ERD & MoFDM, Dhaka (2012)

Table 3.1: Humanitarian Clusters and relevant Government Ministry

Cluster	Cluster Lead Agency	Government Linkage
Food Security	WFP and FAO	Ministry of Food
Nutrition	UNICEF	Ministry of Health
Health	WHO	Ministry of Health
WASH	UNICEF	Department of Public Health and Engineering
Education	UNICEF and Save the Children	Ministry of Education
Shelter	UNDP and IFRC	Ministry of Disaster Management and Relief
Early Recovery	UNDP	Ministry of Disaster Management and Relief
Logistics	WFP	-

Source: LCG-DER Membership, ERD & MoFDM, Dhaka (2019)

Governing Environment enables Better Disaster Management

Bangladesh undertook the standard process of protecting environment which is aligned with the Stockholm mandate 1972. As part of this process, Bangladesh Government enacted three important policies to protect water and environment which are the Water Pollutions Control Ordinance 1973, the Environment Pollution Control Ordinance 1977, the Department of Pollution Control Ordinance 1985. The later one has been renamed as the Department of Environment. Later, government fortified national efforts for environmental management through environment policy in 1992 that recognizes policy issues and strategies. Traditionally top-down approach for decision making process is followed by the central government with the responsibilities of implementations bestowed upon the local government bodies. For that reason, lower level stakeholders show non-response behaviour and hinder to provide sufficient information that ultimately does not reflect genuine ground level situation in policies and systems. Moreover, the decision-making procedures cannot bring satisfaction for all stakeholders including policy makers, citizen, civil society members, non-state actors and the media. This means the inherent limitations of traditional decision-making approach affects the implementation of disaster management policies as non-state actors are reluctant to take initiatives to respond to strategies, community people do not actively engage to execute plans.

Cyclone Preparedness Programme (CPP) volunteers are reported to be spontaneously enthusiastic to work for their community; they are maintaining good communication with Union Parishad representatives and most of them are well known to their community people. This must be balanced with the understanding that households favor different options for sheltering, even if cyclone shelters are accessible, for example sheltering with neighbors who have more robust housing. In cyclone Sidr only 12% of people went to cyclone shelters. Physical accessibility to cyclone shelters is critical (Department of Disaster Management, 2012).

The gap between policy and practice continues to stymie disaster management and the voice and capacities of disaster affected people in preparedness, response and recovery has not been sufficient. Bangladesh is referred to as a global leader on disaster management, however with no overall monitoring system in place and monitoring and evaluation

practices being weak, there is a poor evidence base. Some 43 million urban population (and more is being added) requires adequate attention like those who are in dire threat of natural disasters (DDM, 2012). Disaster Risk Reduction (DRR) is combined in a number of globally accepted Sustainable Development Goals (SDGs) (e.g. Goal 11, 13, 14 etc.). This has included post-Mahasen housing recovery where the government allocated 300 million BDT to housing rehabilitation and development partners allocated almost 490 million BDT for early recovery activities (Department of Disaster Management, 2014). In Aila affected areas the Government used the climate trust fund to build cyclone resistant shelters in Aila affected areas. Early Recovery promotes DRR but this concept does not become the part of Comprehensive Disaster Management Model in Bangladesh yet. One of the SDGs is to build a resilient and sustainable city. It requires not only to ensure the basic needs of the city dwellers, but also a long-term planning to diminish burden in cities through decentralisation of basic services as well as reduction of incidents of disasters (UNO, 2015).

Disasters dangerously affect each and every area of the economy, mostly agriculture, health, education and transport that requires huge monetary involvement for revival and restoration. The BBS reports that 29% of GDP of the country comes from agriculture with an employment of about 63% of the total labour force (BBS, 2006). It is quite noticeable how this sector is shaken. The impecunious of the country counts to nearly 24% who lead a life with less than USD 1.25 perday, exposed because of disaster, is highly vulnerable (The Daily Star, 2011).

Bangladesh is also vulnerable due to the sea level rise as it this region is barely one meter above main sea level. This frailty links to the physical geography as the delta of movable soil is formed by sandy deposits brought down by the many distributaries of the Ganges. Although these rivers have missing connection with the upstream rivers, yet they endure as carriers of surplus rain water (CEGIS, 2009). In addition, the 3.5 million tons of forest detritus dropped from the Sundarbans, decomposing in the water, produces enormous amounts of nutritious organic food for all kinds of water life (IUCN, 2010).

The nexus between SDGs and Local Government

Sustainable development can be views as the combined efforts and set of targets essentially to fit in encountering challenges of economic, social and environmental issues. Thus, the 2030 Agenda highlights the need for a comprehensive and localized approach to the

Sustainable Development Goals (SDGs). The approach advocates how government will combine of various stakeholders such as regional and local authorities, sub-regional institutions, international institutions, academia, philanthropic organizations, volunteer groups and others for getting most of the SDG approach. As such, participatory local government approach seems inevitable for translating SDGs to the development paradigm and benefit to the poor. Brining the poor out of the poverty is also major concern of SDGs implementation. It is mandatory as the poor are the most vulnerable because of disaster. Moreover, local government significantly contributes not only in ensuring to improve access to basic services but also providing the effective platform for the poor, farmers, labourers, and women to engage them in decision-making and development process. Since ‘leaving no one behind’ is the philosophy of SDGs where poor people is in the locus, establishing a strong local government system is perhaps viable solution for inclusive development.

Chapter Four: Part B

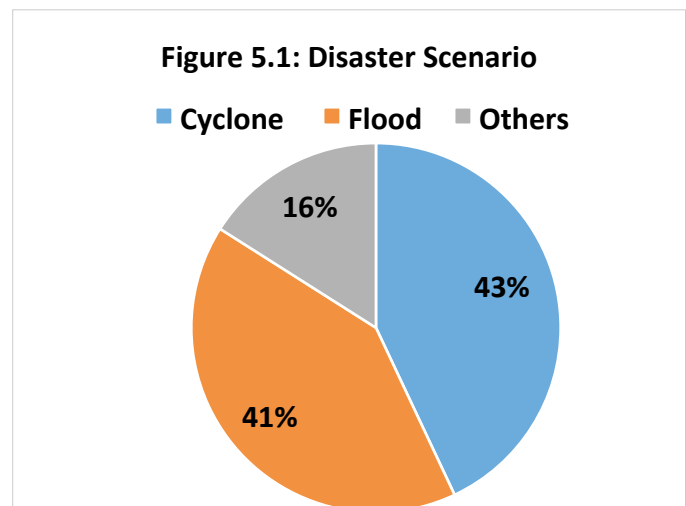
Analysis of Primary data and Findings

This part aims at answering the third research question how the community exposed to disaster vulnerability responds to the Disaster Management programmes initiated and implemented by the government of Bangladesh and humanitarian actors, the researchers collected primary data and analyzed to achieve objective.

Disaster Scenario in Study Area

Because of geographical location disasters are common characteristics in these areas. Every year floods, cyclones, and drought are frequently attacked in these areas. Our regional position is southern that's why maximum time people faced cyclone, in rainy season they always faced flood and in summer season they faced the drought mostly. Based on the field data, among the respondents, 41% shows their fears against flood and 44% told about cyclone. Rest of the respondents indicate drought, heat stroke and others.

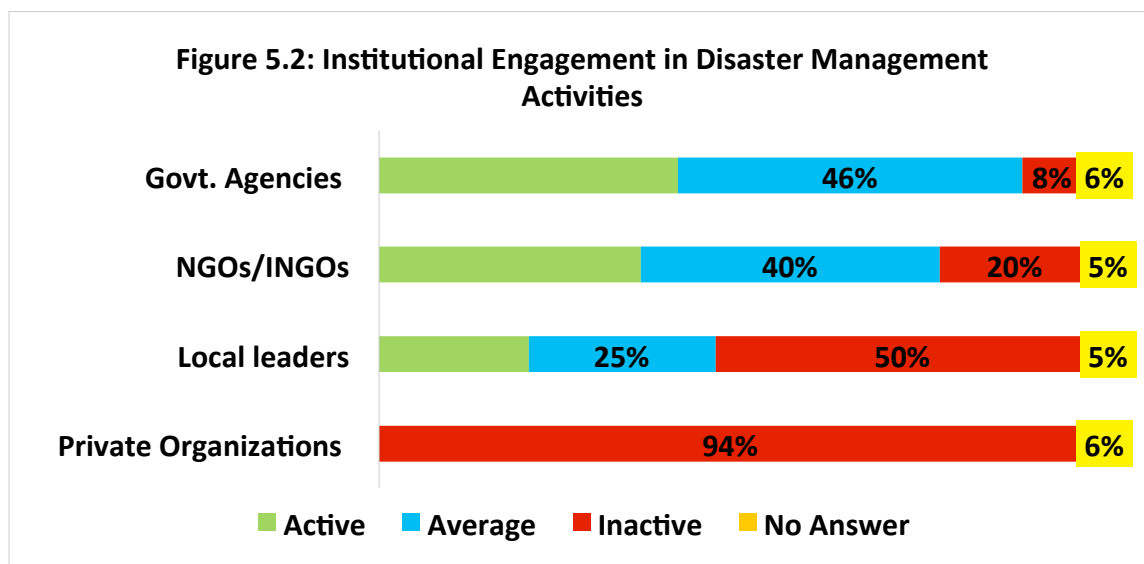
At a glance, several times this locality suffers various types of disaster and this disaster such as drought stays a long time, flood stays also a long time and cyclone stay one or two days but causes lots of losses that's why people always feel panic for disaster. In a nutshell, people of these areas commonly faced the disasters like flood, cyclone, and drought mostly and land slight, heat stroke as well in some cases.



These are the most common disasters based on geographical location. Maximum time cyclone is turned devastating and makes the people vulnerable in that area and affected so much, Flood also common and that destroys all the things and hampers people's life, Drought also frequently common in the summer season. Disaster is the part of life in northern and southern regions in Bangladesh.

Institutional engagement in the disaster prone areas

Although government has taken many initiatives to mitigate the immediate losses in the disaster prone areas, but it is evident that based on the voice of the respondent, government initiatives are on average and that are not enough for these areas. Disaster affected these areas frequently and that's why here need regular and strong strategy to mitigate the pre, during, and post-disaster management. For Disaster management, the NGO also showed the average concentration for diminishing disaster risk reduction that not enough and effective for the disaster affected people. Only a few people are facilitated by dent of this NGO for mitigation the disaster risk reduction and disaster management. The local leaders also same as here, local leaders only help the people which are involve in the same local politics and here cultivate nepotism and personal relationship measures for distribution the relief and other governmental initiatives or facility. Here lack of transparency for equal distribution of Disaster management related facilities. Most regretfully no respondent mentioned the presence of private organization activeness in disaster management activity in the study areas.



One of the UP Member shared his thought in this issue. According to him, NGOs don't help people. In his area there some NGOs working but they also thinking their gain always. Temporary NGOs help the disaster affected people and they provide the loan for agriculture

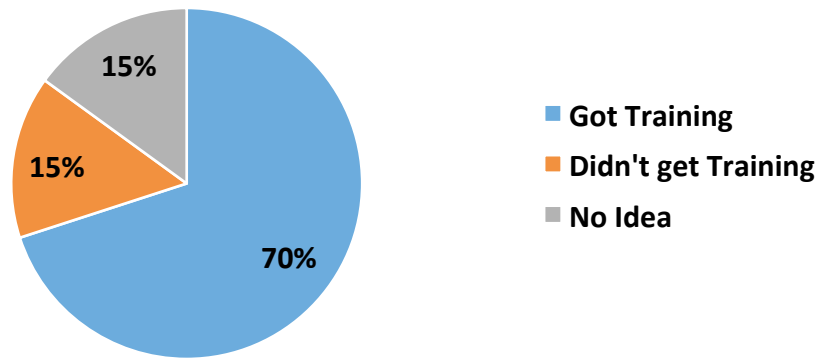
and diminish their vulnerability. In front that is good but in back sight it is harmful to the people. It creates the people's dependency on them and due to high interest, people become poor and never overcome poverty.

As mentioned earlier, despite having several initiatives, the services of the government in disaster responses are not up to the mark against expectation, which reflection shows in the above graph also. Before disaster time, government responses only confined in early warning system but this early warning system are not effective for the disabled, child and senior citizen in this areas, during disaster period all people here gathered in shelter chanter that not enough for all people and after disaster period the government services provide the embankment and arrangement of relief.

As same as the before, majority of the respondents argued that the initiatives and willingness of the legal institutions of the government are not satisfactory in that areas. Because every year cyclone, flood, drought etc. causes lots of damage in that areas, but the government only emphasis EWS, repair the embankment, and arrange the relief and shelter center and that initiatives are not enough for disaster risk management. Every year losses of lives, damaging property and agricultural crop, losing source of income are very common in these areas.

Capacity development related activities are almost out of thought here. Disaster mitigation learning, disaster management guideline, training are hardly found here. The government does not provide training against disaster preparedness, correct instruction on how to minimize the loss, damage, and death and how to learn the dealing with disaster mitigation process to the vulnerable people. Statistics shows that, among the respondents only 15% people got training or attend awareness raising activates whereas 70% of them are living in dark.

Figure 5.3: Status of Receiving Training on Disaster Preparedness



What should be the actions for the government to ensure sustainable disaster management?

For disaster management, the legal institution of the government needs to take principles and practices such as ensuring proper disaster preparedness, establishment of the emergency response assessment, technical training for local people that effective of indigenous coping mechanism that diminish the loss, ensure damage and need assessment recovery etc. which can foster disaster planning and management in regional and community level, organize capacity building activities and training for a disaster resident society.

A local leader expresses his ideas n government effort towards disaster management. According to his voice, for sustainable disaster management, relief programme, call broadcasting, interactive voice response, SMS service to disseminate disaster early warning during and after disaster instruction, and cyclone shelters are the main service of government in that areas. He further added that, in his community, UNO, DC, and members of the Ministry of Disaster Management and Relief are providing disaster-related grants to diminish the vulnerability of the people.

Based on the opinion from the respondent of the study area, the most important and possible actions from the government should be as follows-

- Cyclone preparedness program in coastal areas, and ensure trained volunteers for early warning.
- Flood forecasting and warning center, monitoring stations, regional and international networks.

- Establishment of Seismic centers
- Activeness of Metrological Department
- Active and effective role of media
- Multi-purpose shelter center building
- Raised homestead and plinth level
- Saline tolerant Rice variety
- Raise mass awareness and ensure proper education
- Coastal Greenbelt
- Ensure food security particularly for vulnerable communities
- Structural measures with establish embankment
- Community initiatives, organizational
- Improve roads and communications
- Encourage working with community
- Diminish gaps, concerns, and limitations with citizen and institutional arrangements
- Prepare strategy through observations and learnings
- Establish new generation disaster risk management plan in a particular area.
- Interference of local and national governance in action, coordination, negotiation
- Grassroots Empowerment, constitutions, SDGs implementations etc.

Key Strategies to Mainstream DM activities by the Government of Bangladesh

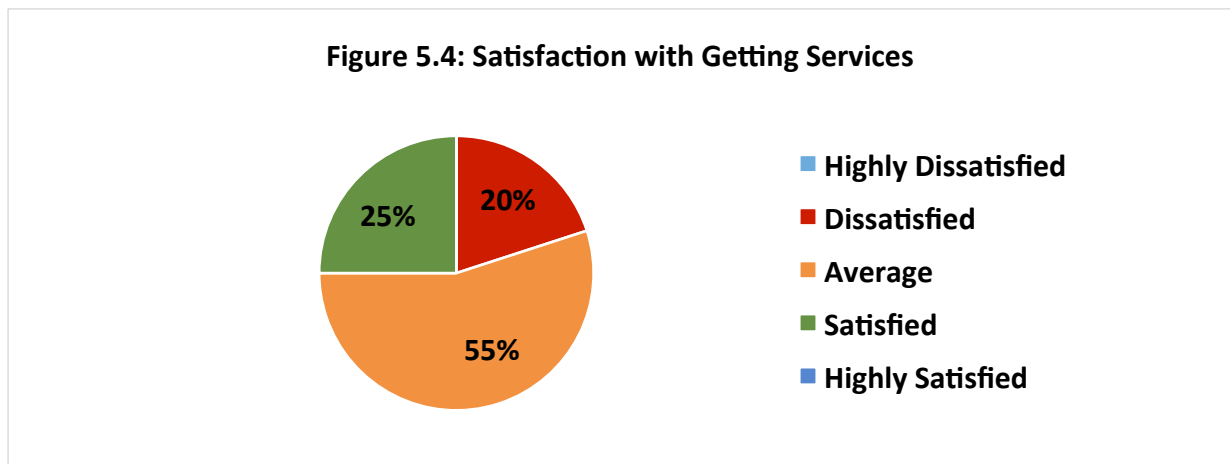
Based on the data from key Informant Interviews, the following strategies can be measured to mainstream the sustainable disaster management activities in Bangladesh.

- Foster education on disaster risk, mitigation, emergency response, and disaster preparedness.
- Changing agriculture pattern according to flood, salinity tolerance varieties, etc, and continuous improvement in food production.
- Priotarizing health sector to improve medical and hospital preparedness.
- Proactive community based early warning system
- Disaster Management Community system at all level
- Wider social safety net program
- Coastal afforestation, Cyclone, and Flood shelters

- Polders & Embankment in the coastal belt
- River embankment for flood

Access of Services by the citizens and problems they faced

Statistics shows that people (Among the respondent) are less happy with the experience of accessing the services related to disaster risk and impact mitigation. Majority of the respondent said that it is hard to get help from govt. offices during or after the disaster occurred. They faced hassle to receive relief or financial help, sometimes it takes long time to issue govt. assistance. NGOs activity is not different from the govt. activities. Sometimes, microfinance related NGOs tried to pressurize to pay the debt even after devastating disasters.



A major part of the respondent (statistics given in the graph) shares their experience that they do not have any facility to mitigate their misery situation due to disaster. But every year The Government of Bangladesh take many initiatives for disaster risk reduction. Many of these initiatives remain unsuccessful due to lack of transparency, surveillance and gap of disaster-prone areas people and government body or government service provider.

A major portion (65%) of the respondents claimed that they are not facilitated by dent of VGD, VGF, TR, and GR. Only a few people are fortunate to get that facilities but they have given some bribe to the influential people and in some cases they arranged that for only their relatives or also depends on a personal relationship.

This problem is also indicated by some local leaders. One of the local representative argued that the top authorities always show their negligence. He added that he is very familiar in his

area and have a good relation with the villagers, but when top authority arrange the relief they are not discussing with the local representatives. This amount of relief is not enough for the disaster affected people. But when time comes to evaluate, all pressure come over to them.

Again, problems not only raise from the agencies sides every time but also occurred for people's lack of knowledge about the mitigation service strategies of disaster risk reduction. The main problems are given below, at a glance:

- Government organizations failed to generate and develop plans as well.
- The government failed to fulfill the affected people's need for diverse reasons.
- Acute problem of ensuring transparency and accountability
- Emergency response mechanism is more complex and more sophisticated against the demand
- Lack of willingness to serve in the humanitarian crisis by the private organizations
- Business centric approach of some NGOs
- Lack of proper knowledge and capacity to mitigate the challenges of the disaster of the general people

But, this picture is not same always. Sometime they get help from both government and other organizations as well.

Required measurers to support the citizen in accessing the services

It is essential to assess the needs where government service is need to ensure to help the disaster prone areas citizen. This consequence can enable the mobilization of resources based on an accurate estimate of the need for disaster-affected people. The rapid problem-solving institutions have to innovate, adapt, and improvise strategic plans and procedures which don't fit the circumstance in this situation. The predetermined sector changes rapidly and abolish the complexity. Ensuring anticipation for effective emergency management captures the need to anticipate future problems and creating their solution before the occurrence of any kind of disaster. Establishment of strong coordination and communication measures with the disaster-affected people which can update their misery condition. It is also important to create strong effective network availability for stabilizing the disaster uncertainty.

Challenges and Scopes of Activating Risk Reduction Initiatives

There is some embankment in the river basin in the study areas but these are not in good quality, facing lots of problems including lack of maintenance and repair which make the stability of the embankment vulnerable in terms of longevity. For this reason, the embankment failed to protect the disaster risk most of the time. If the river basin embankment is long and sustainable it is effective for rescuing the disaster dangerousness and mitigates the loss of disaster-prone areas. For disaster risk reduction embankment so much influential for diminishing any type of disaster speed of movement, generally, the embankment is the element of obstruction of disaster speed or movement.

Again, based on the opinion of the local people among the respondents, there is no observation station in that localities. Observation station is the particular place where many technician bodies and technical instruments for the identification of disaster location, direction, and the potential date and its speed actually and also provide the early warning system that helps of disaster-prone areas people for taking preparation. Observation station is a very empirical that provides the actual information of upcoming disaster, situation, and update also. As there is no observation station, so it's its indicating the poor disaster management and direction. Government, NGO, local leader, Private Organizations aren't showing their activeness to monitor and build observation stations.

From the northern part where the study was conducted, there are many canals but most of the canals are not deep. Majority of them are abolished for lack of digging and there is no government and local service for managing that canals regularly. Exercising of local power many people capture the river occupation illegally. But the government does not take any initiative to rescue the illegal authorization of river occupation. Based on peoples voice, to overcome this situation, government and local people can work together and to do the following activities to rescue the situation.

Table 5.1: Possible Solutions to Activate Risk Reduction Initiatives

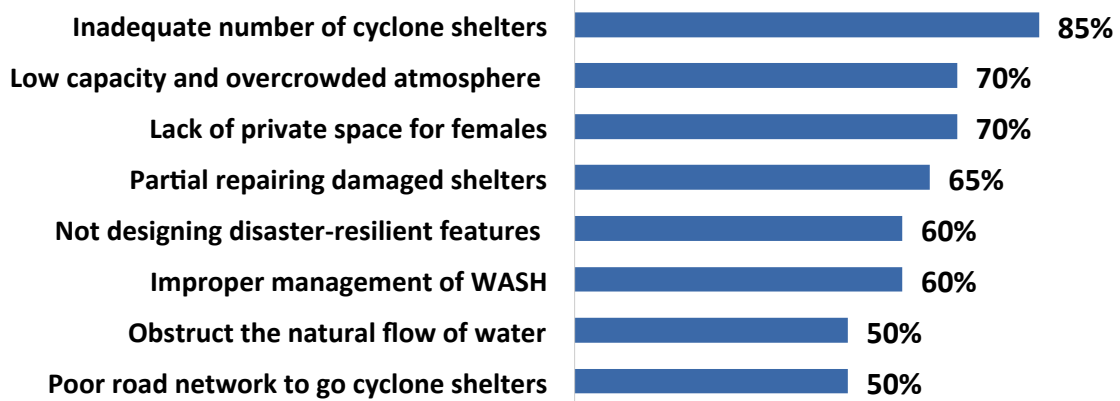
SI	Responses from the field	Response Rate
1.	Some local level activities can be maintained cheaply and effectively by local farmers	70%
2.	Ensure effective solutions for the future protection of local communities, particularly in the short term	65%
3.	Develop sustainable land-use planning	65%

4.	Organize activities and development with proper planning	65%
5.	Diminish huge population pressures and ensure proper solid waste management	55%
6.	Rescue the land from the influential and to resettle the poor.	50%
7.	Reintroduce the use of water bodies for transport, diminishing the pressure on roads	50%
8.	The master plan envisages the canals as sources of water, storm water drainage channels, areas for fish cultivation, irrigation channels, and a means to manage the microclimate.	35%
9.	Create a few new canals to improve connectivity.	35%
10.	All the illegally occupied areas within two years, to make the canals navigable.	30%
11.	To facilitate citizens' participation in the development process. The dwellers, particularly the more youthful, are routinely posting their input.	30%
12.	Ensure evidence based effort to tidy up certain channels with the investment of the nearby individuals.	25%

Again, in the southern part of the country and in other parts as well, cyclone is a very regular and devastating disaster in terms of causing huge negative impact over people's life. In the study areas, respondents told that they have cyclone centers in their areas but these cyclone centers are but there have lack facilities. Living place is not that much comfortable and not sound for female, disable, senior citizen, pregnant women etc. This cyclone centers are mostly problematic, people faced problem due to lack of toilet, clean space, electricity, drinking water and other regular needs. Based on the people's (respondents) perception, the following issues are very concerning in terms of sustainable shelter center management-

- Inadequate number of cyclone shelters
- Low capacity and overcrowded atmosphere
- Lack of private space for females
- Partial repairing damaged shelters
- Not designing disaster-resilient features
- Improper management of WASH
- Obstruct the natural flow of water
- Poor road network to go cyclone shelters

Figure 5.5: Major challenges in Shelter Centers



Accessing clean and safe drinking water one of the major challenges for the people of disaster prone areas. Respondents of the study argued in this point very strongly how they face trouble to get drinking water. 70% people among the respondent told that there are not enough tubes well near shelter centers. Besides, during flood all the tube-well drowned under water. During drought, they faced many difficulties to collect drinking water. The condition of a large number of tube-wells are so poor that is not fulfill the people's need of drinking water. In the flood situation, all tubes well are underwater and this create a shortage of pure drinking water and other household need. Government can take sustainable and innovative initiatives that can help to diminish the lack of tub-well in that localities. The major suggestions from the respondents are as follows-

- a. Identify the problems related to water supply
- b. Ensure demand-oriented tube well facilities
- c. Ensure to set up tube-wells in high ground
- d. Establish common tube-wells for a group of houses
- e. Establish tube-well at the shelter centers
- f. Increase community participation to establish tube-wells

Safety and awareness of the citizen on disaster preparedness

In the study areas, 75% of the respondents said that the local administration take some steps to provide early warning in disaster period to warn the citizen about upcoming disaster. But due to lack of proper awareness some portion of the locality don't pay attention or notice this types of warnings. Even they do not have any idea who provides the signal before the disaster. That's why sometime warning system cannot make people safe during the disaster. In this types of situation, local administration takes initiative with the EWS surveillance

committee that plays a vital role in this uncertain conditions. Also, they take the innovative idea to help the citizen by motivating to go to the shelter center before the disaster attack. The local people provide their opinion on how authority can help them by ensuring their safety and raising motivation among them. The major points is as follows-

Table 5.2: Citizen’s demand on safety and awareness

Sl	Suggestions	Response Rate
1.	Create a particular team or volunteer group	65%
2.	Improve cyclone early warning system	65%
3.	Establish monitoring mechanism	60%
4.	Ensure the cyclone warning issuance	50%
5.	Issuance of evacuation order maturely	45%
6.	Disbelief abolish and ensure belief of disaster signal	40%
7.	Introduce easily understandable warning system	40%
8.	Ensure training to understand signals	40%

Engagement of local administration for sustainable disaster management

Natural disasters are common occurrence in rural areas, with drought, cyclone and flooding-creates serious risk in many regional areas. Understanding the elements that can aid or hinder the recovery process is critical to get communities back on foot and looking to the future. The government takes prevention and planning, immediate recovery, population displacement, reconstruction, and disaster dissemination plans that diminish disaster risk. Local administration can play a great role here for sustainable disaster management and to ensure services at citizen doorsteps. According to policy level people’s opinion it is essential for local administration to set-up a “permanent platform” with major groups for discussing problems and possible solution to be adopted and ensure identification of the disaster affected people because they actually physically faces this problem. Establishment of the IT communication tools is essential for providing wide evidence of the actions performed and the progresses made and ensure the technical education of local people. Some major opinions from the local communities’ are-

Role in pre, during and post flood impact should be-

- River embankment approach ready to open up approach
- Take initiative for re-excavation and dredging
- An effective plan to prevent soil erosion
- Development of flood early warning system
- Create strict law for land use regulation
- Flood and crop insurance for helping the farmer
- Flood emergency preparedness plan
- Making strong regional cooperation

Role in pre, during and post Cyclone impact should be-

- Development of cyclone early warning system
- Building of adequate number of a cyclone shelter
- Capacity development of people living in the coastal areas
- Long term cyclone mitigation measures like cyclone resilient housing, expansion, development of cyclone contingency plan.

Role in pre, during and post drought impact should be-

- The invention of drought-tolerant rice varieties
- Cash transfer and Employment generation programs (VGD, VGF, TR, GR)
- Installation of Deep Tube-well.

Institutionalize ministerial efforts for sustainable disaster management under the development process

Ministry level members are well known about disaster characteristics such as predictability, controllability, duration of impact, speed, and the impact that's why this knowledge applied in disaster-prone areas that help to cope with disaster risk. Ministries can provide sectoral support in organizing for relief campus, supplying food, essential commodities, medical facilities, fund allocation, alerting local administration etc. Sector wise ministries should take effective steps during disasters including physical visits, monitoring the relief camps, and handling emergency crisis. They can initiate special teams for training, commanding, control, and coordination of the disaster mitigation and prevention activities practically.

Enabling NGO/INGOs to contribute in sustainable disaster management

NGOs have one of a kind vision and adaptability that frequently open new frontiers for disaster management activities, for example, intervening vulnerability, decrease of various vulnerable and marginalized groups—sexual orientation gatherings, disable groups, young people, and the maturing populace—just as the consideration of minority groups in DRR decision-making and so on. To ensure their contribution more effectively, the following measures can be taken in consideration.

- Promotion and participation of youths in risk assessment and risk management planning because early training help the youths cope with disaster management and in the future, they show good innovative idea against the disaster damage.
- During the disaster, more vulnerable groups are pregnant women, young girls, female seniors, and disable people. NGOs can initiate inclusion of gender-segregated assessment.
- Monitoring and collaboration of incentivize local government officials to allocate resources in disaster management
- Building local capacities to monitor disaster risk and help local governments to be accountable for disaster risk budgeting.
- Relevant to disaster risk decrease for the usage and intelligibility of instruments.
- NGOs can help local governments by training the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure reaction in crises
- Most rural people and local governments are illiterate that's why NGOs need to take initiatives to educate and training these people that help to adapt advanced technology to identify the disaster potentiality.

However, due to weakness in implementation, monitoring, and shared learning about disaster management related issues that why community never trusts the disaster management related activities of the government/local leaders/ NGO/INGOs. And also never depend on their activities. As a consequence government takes good and effective initiative for disaster risk reduction process the community rejecting this. The community acceptance the disaster management relatedactivities of the GO/NGO/INGOs needs program development and implementation, focusing on Loss and Damage.

Mainstreaming local leaders to contribute in the disaster management process

The local leader can contribute to disaster management in their particular areas. Because local leaders are well known about the disaster affecting sectors in their region, and which initiatives should be taken from the government. The local leaders also have good understanding about the needs of that regions people's need and demand, weaknesses against disaster, people capability to protect disaster etc. As the whole characteristics of a disaster prone area are known by a local leader that helps in decision making process of disaster management. And most crucial things local people expects from the local leader that's why local leaders desire to contribute to disaster management, it can be much better than others.

The contribution should be-

- Local leader can create communication among individuals, household and volunteers for disaster preparedness
- Form a committee including a community leader where community head, secretary and members are physically attached in decision making for disaster risk reduction
- Senior village so much important because they are adept in indigenous knowledge to protect from disaster risk that's why local leaders need to cooperate with them. Community, religious leader, retired school teacher can be involved in disaster management decision making process.

How communities can take measures for disaster preparedness?

Due to geographical location and mismanagement of disaster preparedness people of disaster prone areas faced a lot of damages all the year round. But they think that they can also take measures to prevent the impact of disasters.

From the interviews, it is found that respondents emphasized on the community participation in disaster preparedness where institutional initiatives cannot work properly. According to their knowledge, the following actions people can take for individual disaster management.

- a. Build their house in high ground
- b. Made the shed of the house low
- c. Make easy movable Chula (alga Chula)
- d. Vegetable cultivation in front of house

- e. Save some food and money for further use
- f. Elevate cattle sheds
- g. Flood tolerant alternative crops production
- h. Move to the shelters during disaster
- i. Take with enough necessary materials in shelter
- j. Spread awareness of disaster management with other people

Peoples demand against disaster response from different authorities

During disaster period, relief and financial assistances are provided by the Government organizations, NGOs, Chairman, Members and other organizations and individuals as well. In this period the government should take the following actions-

- Introduce preparedness plans, emergency exercises/training and warning systems
- Emergency operations, search and rescue
- Build temporary house, provide financial help, medical treatment etc.
- Mapping and initiate vulnerability analyses and emphasize on awareness
- Coordination between the affected community and district control room
- Arrange food for work that abolish the dependency
- Initiate agriculture rehabilitations

The role of non-government and other organizations should be-

- Infrastructural and humanitarian support towards the community
- Ensure medical camps and health treatments
- Ensure logistics and improve transportation and communication for relief management
- Establishment of relief camp
- Construction/repair of road and bridges
- Maintenance of essential services etc.

The role of local government should include:

- Making it capable of responding disaster
- Approving the plan designed locally
- Imparting hands-on training to the members of the Union Disaster Management Committee
- Ensuring local disaster related information and sending to the district coordinator

- Arranging the community discussion for preparation of disaster action plan

Risks/challenges for sustainable disaster management

During the field study, local people and key informants identifies several challenges which are the main barrier for sustainable disaster management in Bangladesh. The major problems are showing in the bellow-

1. Absence of flood vulnerability assessment, and mapping.
2. Incomplete disaster mitigation and observation Systems.
3. There are different disaster and hazards in different parts of the country and diverse resources are needed to cope with that. But all the issues treated as the same.
4. Disaster knowledge is very poor in the working groups in Bangladesh that's why extra implementation procedure and research as consequence costs time and money that failed to urgent response and mitigation of disaster risk.
5. Unplanned disaster resilience strategic communication plan that lack of capacity of disaster management.
6. Lack of proper guidelines about environment and climate change, including the prevention of disaster risks.
7. Mismanagement in the land use planning.
8. Ignorance about the support for affected people, businesses, and employment. And they feel too shy for accepting relief for the lost their trust towards government.
9. Effective Crop Insurance where ensuring growing crops instead of money but here only provide money for cultivation that creates a dependency of a local farmer and increasing their expectancy. Due to poor knowledge of disaster tolerance crops that's why they failed to expected harvest.
10. Poor Disaster loss databases that hamper the proper budget reallocation.

Government action to ensure sustainable disaster management

Although we have lots of problems and issues for proper disaster management, Bangladesh is considered a role model in disaster management utilizing its indigenous knowledge, coping strategy, and effective management system viewed by international

communities and experts. But based on people's voice, The government should ensure sustainable disaster management action which are as follows-

- Ensure responsiveness that increase capacity of the disaster affected peoples easily should take preparedness and planning.
- If community members get satisfaction about disaster planning they are encouraged to overcome their misery situation
- Logistics analysis for mitigation the Disaster risk reduction.
- Arrange institutional training for local people and must engage the women.
- Create application of acquiring knowledge and leadership contingency plan for responsive teamwork.
- Community engagement in agriculture, health, and housing repair, road repair, and innovative and indigenous knowledge apply in irrigation.
- Help to diminish the insensibility about disaster potentiality, recovery, and mitigation urgent. Adopt a sustainable solution to recover the disaster soon.
- The Government will check how much action is being taken and what is benefiting the disaster affected areas people.

The government should set up institutions that are disaster tolerant in disaster-prone areas such as the research center of irrigation, seeds with disaster tolerance that help to ensure food security in that areas. Then any unexpected situation can be manageable by that areas people and possible to take effective initiatives for diminishing damage and loss.

Chapter Five: Conclusion and Way Forward

This study hopes to first contribute to the limited literature on Disaster Management in Bangladesh. Bangladesh is following a route for structural transformation from relief centric disaster management to Disaster Management culture that is different from that in other disaster prone countries. And given the nexus between Disaster Management and Sustainable Development, this study hopes to specifically understand the consequences of legislative and institutional frame of the government of Bangladesh, which will help understand the limits on disaster resilience ability of the community exposed to disaster vulnerability in Bangladesh. The study envisions knowing how Policy framework of Bangladesh enables communities to establish potential solutions to their vulnerability to disaster hazards. Without execution, the policy framework of sustainable disaster management is a meaningless application that will cause in top down explanation imposing float up answers. Therefore, level of enforcement of legislative obligations as well implementation of the Disaster Management programme by the concerned disaster management institutions would be unveiled with this endeavor. The diversity of challenges and opportunities at the national level for building and implementing DM legislation that will reach the most vulnerable is matched by the urgency with which DM legislation is required. This study would illustrate the initiation of development scheme in the light of DM and the evolvement of the standard practice over time as DM diminishes the cost of disaster response. The study aimed at providing a better understanding how Bangladesh government formulate and implement DM related efforts.

Limitations of Policy Framework in Bangladesh

It is widely known that the demand of people from disaster prone area of Bangladesh and international community directly influence to frame policies in order for reducing disaster risks and administering intuitionally with a view to have safer community. Government usually undertake policy framework that previously taken and worked well; even accepts what non-government organizations adopted or supported. Thus policies lack inherent limitations of the previous strategies and affect the total DM system. This limitation brings effect in all stages such as, policy formation, implementation, monitoring and even in evaluation.

Overall Challenges

It is seen that traditionally Bangladesh emphasizes on immediate solution for disaster as mark of DM system because of frequently occurrences of disasters that also demand quick solutions. However, quick-fixing solution does not work well. Regarding the legislative arrangements for disaster risk management, the level of execution is not found satisfaction because of misinterpretation and implementation problem.

Usually, disaster risk reduction is an issue of DDM that becomes shortcoming of the system because reduction in disaster risks necessitates an all-encompassing national agency to determine the role, strategy. Since DDM handles in single hand, the system lacks of leadership, appropriate strategies, and implementation of strategies.

National policy and strategies for integration of DRR in emergency preparedness, response and recovery programmes in the light of national level policies pertaining to the DRR for the reconstruction of affected communities are still remain challenge for the Government of Bangladesh to accelerate the big shift from the relief culture to the DRR culture. At the same time, improve consideration of DRR and relevant tools are still out of conception of the Government of Bangladesh.

The national capability in disaster response has been advanced based on the statement that the country may look one national-scale disaster a year. But Bangladesh has faced two national scale disasters in 2007 and 2009, lesson of which essential further endorsement of the underlying supposition, mainly in the context of climate change in an determination to move onward the motion grown in the area of DRR.

Besides, the presence of partial approach of capturing community practices of DRR and scaling up throughout the country serves as the challenge. The study found two important shortcoming such as; non-availability of funding and sustaining its inflow to strengthen DRR at national level; and lack of strengthening local DMC with suitable authority and funds for planning and implementation.

Recommendation for Future Research

The emphasis of this study was to study and learn about policy framework of the government of Bangladesh in DRR. The viewpoint was preferred consciously as the researcher's interest is in the implication of public policies towards promotion of DRR. Research with this viewpoint had not yet been done, whereas there is extensive DRR literature available that explains and benefits the viewpoints of the policy makers that is leaving a scope for improved policy formulation.

During the research as well as the investigation procedures several other ideas curved up that could be of concentration and worthwhile to investigate more systematically. It would be interesting to study more closely perception of community towards formulation of policies for integration of DRR principles into development initiatives of the Government of Bangladesh. This study would illustrate the initiation of development scheme in the light of DRR and the evolvment of the standard practice over time as DRR diminishes the cost of disaster response.

Way forward for improvement of policy framework

A number of issues are required for sustainable disaster management that includes:

The ownership of policy relating disaster management should not belong to one ministry rather it must be of all government agencies so that a strategic 'joined-up' methodology can be essentially developed and institutionalized for disaster risk reduction to a certain level. The joined-up strategy is accompanied by the capacity building training programme for all concerned officials to successfully implement DRR guidelines. Leadership is a critical factor particularly for managing the disaster.

Since disaster is not a country specific originated issue, rather it is intensified by number of issues including climate change globally because of exponential increase of industrialization. That's why managing disaster becomes a concern of global agenda and it requires holistic approach to be handled internationally. Country's experience of managing disaster can be backed by technology. It shows the necessity of strengthening diplomatic relationship.

It is found that disaster risk reduction programme is more cost-effective than the relief and recovery which advocates to allocate more funding for executing the DRR programme.

However, a government-donor management style can also be used based on the experience of NGOs to create the ownership among the community and assistance providers. This process encourages the civil society and policy makers' coalitions to mobilize local assets because civil society actors remain imperative for advocacy and they can provide a vehicle for bringing comprehensions from the grassroots, a mechanism for the representation of popular views, and the potential for popular legitimacy and oversight.

Introducing disaster management and risk reduction mechanism in the basic education system may enable young students and teachers in order to practically exercise the learning and eventually contribute to reduce the risks. This process may produce a socially developed disaster management system and sustain for a long time. Additionally, a specialized training institute for capacity building of community, public officials and other relevant stakeholders can be establishing to jointly work to reduce risk reeducation.

Land use planning for DRR is deemed as the most significant obstacle because of fixing the suitable criteria that relate to social, cultural, geographical, political and economic. The absence of these criteria may lead to wrong planning. Therefore, the execution of regulations determining the physical shape and quality of environment becomes as an imperative. Thus, land use preparation is potentially powerful mitigation tool as it seeks to mitigate the threats and vulnerability from some geological and other hazards. For effective land use strategy and planning considering DRR, making of "National Land Use Policy" is required. The purposes of land use policy are ruled by what people want or think they should have, and what the purposes of government are considered to be in bringing about better practice of land including water bodies. Deviations in land use and water organizations are desired only when people are displeased with existing circumstances or when people conceive of better use of land and water bodies.

Effectiveness of UDMC is a must for building disaster awareness through frequent meeting relating to three phases (pre, during and post) of disaster. Because this meeting contributes to raise fund, establish disaster warning stations in each UP office, establish disaster shelter, create volunteer team for emergency response, organize training covering three phases of DM, create social awareness, encourage community participations in the assessment following disaster events and execute government programmes. As this UDMC works at the grassroots level and combines community support, this committee sustains. However,

involvement of women must be mandatory so that the need and vulnerability of this community during disaster is realized and effectively addressed.

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Annex-1

Checklist for KII and IDI with Government Officials (local administration-ministries)/Local Leaders/ NGO/INGO People/Private Organizations

Dear Sir,

I am from Now we are conducting a study titled entitled “**Interplay of Disaster Management and Sustainable Development: Legislative and Institutional Role of the Government of Bangladesh**”. Your participation in this interview is completely voluntary. I should appreciate your participation in responding to the questions. This interview will take approximately 40 minutes. The information you provide will be kept strictly confidential and used for research purpose only. You will not be identified, or be able to be identified, in any of the reports I have plan to write.

Title	Information
Name of the Respondents (Optional)	
Designation	
Department	
Organization/Institution	
Address with Landmark	
Contact ID	
Interview Starting Time	
Interview End Time	
Date	

Checklist

1. How long have you been working in this areas?
2. What are the key disasters people faces frequently in this areas? How many times in a year?
3. Who are working for disaster management in this areas?
 - Government (Which wings? How are they working?)
 - NGOs/INGOs (Which NGOs/INGOs? How are they working?)
 - Private Organizations (How are they working?)
4. What are the services of government for the Disaster Management in your communities? What are the legal institutions of the government working for disaster management in this areas?
5. How legal institutional framework are working for disaster management related activities under the development process? How are they prioritizing this issues? What do you think? How it can be prioritized (DM activities) to take it to the mainstream of development process?

6. How disaster management related activities of the government reaching to the rural level citizens? What should be the role of local administrations to ensure these services at citizens' doorsteps?
7. How local administrations are ensuring transparency and accountability of their role for disaster management?
8. How ministry can contribute to ensure disaster management related activities under the development process?
9. How local leaders can contribute to the disaster management process?
10. How NGO/INGOs have been contributing in this areas for Disaster Management? How govt. can play role to ensure their contribution more effectively?
11. How community is accepting or rejecting the disaster management related activities of the government/local leaders/ NGO/INGOs?
12. What should be the actions for the government to ensure sustainable disaster management?
13. Is there any capacity development related activities taken places in your areas for disaster management? How often it have taken places to empower citizens/govt. officials/ local leaders/NGO/INGO people to face the disaster?
14. What are the strengths of the government to ensure disaster management from community to the ministry levels?
15. What are the improvable areas of the government to ensure disaster management?
16. What should be the best opportunities if government can implement disaster management plan successfully?
17. What are the possible risks/challenges to implement the disaster management plan?

External Evaluator's Report

Bangladesh Public Administration Training Centre
Savar, Dhaka

External Evaluator's Comments on Research Report

Title of the research report: "Interplay of Disaster Management and Sustainable Development: Legislative and Institutional Role of the Government of Bangladesh"

Researcher(s): Dr. Mohammad Tarikul Islam Associate Professor and Dr. Mohammad Rezaul Karim, Deputy Director

Please make your comments on the following points of the research report

Evaluator's Comments	Responses from the Researcher(s)
<p>The sequence of the report is generally of research standard. However, a chronology of disaster governance (such as discussion on the international drivers/SDG, HFA, SFDRR following the national drivers/DM Act, Policy, NPDM) is required.</p>	<p>Duly addressed and incorporated (shaded in purple color)</p>
<p>The content is appropriate. However, more articulations in linking the research findings with objectives should be given.</p>	<p>Reflected in the designated part of the report (shaded in purple color)</p>
<p>The research method would have been scientific if quantitative/qualitative data were collected directly from the field. The major limitation is to collect data from those who are familiar with online technology. These could have been avoided through involving local level enumerators in both the study locations.</p>	<p>As it is done last year, there is no point to revisit at this point time. We appreciate the concern raised by the esteemed evaluator. Apart from applying online technique in the midst of COVID pandemic, we had deployed two research assistants for collection of data in the form of questionnaire survey from two study areas.</p>
<p>This analysis is based on the collected data, analyzed and presented following graphical and other representations, and hence, is logical.</p>	<p>Self-explanatory</p>
<p>The research titled 'Interplay of Disaster Management and Sustainable Development: Legislative and Institutional Role of the Government of Bangladesh' is a timely one. Through reviewing some relevant policies and regulatory frameworks, the researcher attempted to highlight the disaster risk reduction (DRR) efforts of the government. It also aimed to linking the political economy with mainstreaming</p>	<p>Yes, focus has been given on Historical evolution of disaster governance in Bangladesh (new addition is shaded in purple color).</p> <p>Factors contributed to increasing in severity and frequencies of disasters have also been mentioned deliberately (new</p>

<p>institutional mechanisms.</p> <p>However, in doing so, the researcher has provided limited attention to the history of disaster risk governance in Bangladesh. Factors contributed to increasing in severity and frequencies of disasters have also been mentioned marginally.</p> <p>The secondary documents reviewed for the study are not equipped with updated information. Although Sendai Framework of Disaster Risk Reduction (SFDRR, which is the basis of disaster management regulatory and policy framework for member countries of UN since 2016) has been mentioned, no analysis on this has been presented? Both the SFDRR and SDGs have strong focus on ‘whole of society’ approach, which have to be mentioned in context of inclusive DRR</p> <p>Moreover, there is almost no mention about SDGs and its linkage with DRR. It, is therefore, suggested that the researcher review more documents, in order to give justice to the research findings.</p>	<p>addition is shaded in purple color).</p> <p>The study has been well equipped with updated information/data. For instance, Table showing major disaster events of Bangladesh is provided in addition to the newly adopted DM Model of Bangladesh (new addition is shaded in purple color)</p> <p>A brief analysis has been added highlighting the efforts of the Government of Bangladesh in attaining the goals stipulated in SFDRR (new addition is shaded in purple color)</p> <p>Nexus between SFDRR and SDGs is duly mentioned (new addition is shaded in purple color)</p> <p>More documents are consulted and acknowledge in order to leverage the research findings (new addition is shaded in purple color)</p>
<p>Some of the relevant articles can be consulted:</p> <p>1. Mahbuba Nasreen, (2021). ‘Fifty Years of Independence: Fifty Years for Disaster Risk Governance in Bangladesh’ The Daily Star, 26 March, 2021 URL Link: https://www.thedailystar.net/supplements/celebrating-50-yearsbangladesh/news/fifty-years-disaster-risk-governance-bangladesh-2067109</p> <p>2. Robiul Huq, Mahbuba Nasreen and Md. Arif Chowdhury (2019). ‘Gender inclusive disaster management policy in Bangladesh: A content analysis of national and international regulatory frameworks’ (with co-authors), International Journal of Disaster Risk Reduction, 41 (2019) 101324: 1-10 URL:</p>	<p>Duly consulted while revisiting the whole report.</p>

<https://www.sciencedirect.com/science/article/abs/pii/S2212420919302687>

3. Mahbuba Nasreen (2016). 'Disasters and Disaster Risk Reduction in Bangladesh', published in Bangladesh's Development: Some Issues and Perspectives, (Qazi Kholiquzzman Ahmed & Shafi Ahmed [eds.], book in honour of AMA Muhith), 2016. Dhaka: PKSf, BUP, DScE.

Internal Evaluator's Report

Bangladesh Public Administration Training Centre
Savar, Dhaka

Internal Evaluator's Comments on Research Report

Title of the research report: "Interplay of Disaster Management and Sustainable Development: Legislative and Institutional Role of the Government of Bangladesh"

Researcher(s): Dr. Mohammad Tarikul Islam Associate Professor and Dr. Mohammad Rezaul Karim, Deputy Director

Please make your comments on the following points of the research report

Evaluator's Comments	Responses from the Researcher(s)
Format and sequence: The research report format is fine with: Introduction; literature review; methodology, data analysis and conclusion.	Self-explanatory
The researchers drawn research questions rather research objectives, which is alright. For better understanding of the readers' community, research objectives are to be formulated in the first chapter. In the first chapter 'organization of the report' can be inserted for the readers. As per research questions, the horizon of Literature Review can be updated with additional literature along with references.	Since the evaluator remarked research questions are alright, we have kept that. Objectives have been added (please see changes in red in the text). Additional literature has been updated and duly inserted in the bibliography.
This piece of work is done through secondary and primary data based. For primary data collection, which methodological approach of research is used, need to be discussed and why? What sampling method is taken for this research? who were the respondent?, and the number of respondent should be clear. Data analysis shows only % value, frequency Table is required to understand the number of respondent.	The study employed qualitative research approach which is stated in the chapter three. Justification of qualitative approach and data collection tools have been stated as well. Since it is qualitative research, the study followed non-probability sampling (please see changes in red in the text). Total 40 interviews were conducted, 20 from each cluster. Tables are incorporated in the discussion part.

<p>According to the research questions or objectives, data analysis presentations are to be drawn, so that the readers' can understand the achievement of research objectives. This study report is organized sequentially mostly. Still there is a scope for development.</p>	<p>The evaluator said this report is organized sequentially mostly and put a notion of room for development. we have thoroughly checked the report and developed where needed.</p>
<p>The nexus between SDG and Disaster management, is it required for this report? [Chapter 4, part A, pp.30]. In the first chapter, DM calendar is miss fit, can be shifted in the literature part. In the first chapter, study problem statement, scope & limitation are to be inserted. The first chapter contents are: introduction, problem statement, rationale of the study, study objectives/research question, scope limitation, and organization are required. In the conclusion part: Policy recommendation should be inserted based on study findings.</p>	<p>The study is related to examining the interplay between Disaster management and SDG linking to legal and institutional framework where nexus between these two issue are needed. Since the first chapter discusses overview, the calendar gives the notion of occurrences disaster to the readers and ultimately shows the significance.</p> <p>Policy recommendations have been stated based on the study findings.</p>