

**ROLE OF WOMEN IN DISASTER MANAGEMENT  
POLICIES: MYTHS AND REALITIES IN BANGLADESH**

**M.Phil. Thesis**

**By**

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**M.Phil. Thesis**

**By**

**Tahmida Khanam**

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May, 2016

## **DECLARATION**

**I hereby declare that I have written this M.Phil thesis myself, it is an original work and that it has not been submitted to any other University for a degree. No part of it, in any form, has been published in any book or journal.**

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## CERTIFICATE

I do hereby certify that Tahmida Khanam, my M.Phil. supervisee as written this M.Phil. thesis herself, it is an original work and that it has not been submitted to any other university for a degree. I recommend this thesis for final submission to the concerned authority.

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I hope this research will be helpful for effective intervention by the government to fulfill its mandatory role of coordinating all disaster management policies for women within the country. It is expected that the findings of the study will contribute towards a cohesive and well coordinated programming framework, incorporating GoB, non-government organizations and the private sector to work on women issues.

In this regard, I offer my sincere thanks to the respondents of my field Kolapara union for giving their precious time and for sharing their sufferings and experiences. Their suggestions, demands, views, comments and recommendations have facilitated a great in developing the research.

## LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness Centre
ADRC	Asian Disaster Reduction Centre
AFD	Armed Forces Division
APD	Academy for Planning and Development
ASEAN	Association of South East Asian Nations
BARD	Bangladesh Academy for Rural Development
BBS	Bangladesh Bureau of Statistics
BCAS	Bangladesh Centre for Advanced Studies
BCS	Bangladesh Civil Service
BDRCS	Bangladesh Red Crescent Society
BFS&CD	Bangladesh Fire Service and Civil Defence
BGS	British Geological Survey
BMD	Bangladesh Meteorological Department
BNBC	Bangladesh National Building Code
BNDV	Bangladesh National Disaster Volunteers
BPATC	Bangladesh Public Administration Training Centre
BS	Bangladesh Scouts
BUET	Bangladesh University of Engineering and Technology
BWDB	Bangladesh Water Development Board
CBO	Community Based Organization
CCA	Climate Change Adaptation
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
DAE	Directorate of Agricultural Extension
DC	Deputy Commissioner
DDMC	District Disaster Management Committee
DDMP	District Disaster Management Plan
DESA	Dhaka Electric Supply Authority
DFID	Department for International Development
DGOF	Director General of Food
DIRA	Disaster Impact and Risk Assessment
DM	Disaster Management
DMB	Disaster Management Bureau
DMC	Disaster Management Committee
DMIC	Disaster Management Information Centre
DMRD	Disaster Management and Relief Division
DMTATF	Disaster Management Training and Public Awareness Building Taskforce



DoE	Department of Environment
DPHE	Department of Public Health Engineering
DM&RD	Disaster Management & Relief Division
DRR	Directorate of Relief and Rehabilitation
DRRO	District Relief and Rehabilitation Officer
ECNEC	Executive Committee of the National Economic Council
EGP	Employment Generation Programme for the Poorest
EIA	Environmental Impact Assessment
EOC	Emergency Operation Centre
ERCC	Emergency Response and Communication Centre
FBCCI	Federation of Bangladesh Chamber of Commerce and Industries
FFE	Food for Education
FFW	Food for Works
FFWC	Flood Forecasting and Warning Centre
FPMU	Food Planning and Monitoring Unit
FPOCG	Focal Point Operation Coordination Group
GDACS	Global Disaster Alert and Coordination System
GDP	Gross Domestic Product
GIS	Geographical Information System
GOB	Government of Bangladesh
GSB	Geological Survey of Bangladesh
HBB	Herring Bone Bond
HCTT	Humanitarian Coordination Task Team
HFA	Hyogo Framework for Action
HIPC	Heavily Indebted Poor Countries
ICT	Information Communication Technology
IFRC	International Federation of Red Cross
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
IVR	Interactive Voice Response
IWM	Institute of Water Management
JPOI	Johannesburg plan of Implementation
LGD	Local Government Division
LGED	Local Government Engineering Department
LGRD	Local Government and Rural Development
LRP	Land Reclamation Programme
MDGs	Millennium Development Goals
MES	Meghna Estuary Study
MoD	Ministry of Defence
MoDMR	The Ministry of Disaster Management and Relief
MoEd	Ministry of Education
MoEF	Ministry of Environment and Forest
MoFA	Ministry of Foreign Affairs
MoFDM	Ministry of Food and Disaster Management

MoF&L	Ministry of Fisheries and Livestock
MoH&FP	Ministry of Health and Family Planning
MoHA	Ministry of Home affairs
MoP&T	Ministry of Post and Tele-communication
MoPME	Ministry of Primary and Mass Education
MoRA	Ministry of Religious Affairs
MoS&T	Ministry of Science and Technology
MoW&CA	Ministry of Women and Children Affairs
MoWR	Ministry of Water Resources
MPO	Master Plan Organisation
MSL	Mean Sea Level
NAEM	National Academy for Educational Management
NDMAC	National Disaster Management Advisory Committee
NDMC	National Disaster Management Council
NDMTI	National Disaster Management Training Institute
NEC	National Economic Council
NGO	Non Governmental Organization
NGOCC	NGO Coordination Committee on Disaster Management
NPDM	National Plan for Disaster Management
NWMP	National Water Management Plan
NWRD	National Water Resources Database
PCP	Project Concept Paper
PDMC	Pourashava Disaster Management Committee
PDMP	Pourashava Disaster Management Plan
PIO	Project Implementation Officer
POA	Plan of Action
PP	Project Proforma
PPRR	Prevention, Preparedness, Response and Recovery
PRSP	Poverty Reduction Strategy Paper
PWD	Public Works Department
RAJUK	Rajdhani Unnayan Katripakhaya
RCC	Regional Consultative Committee
RDA	Rural Development Academy
RRAP	Risk Reduction Action Plan
SAARC	South Asian Association for Regional Cooperation
SARDI	Soil and Agricultural Research and Development Institute
SDMC	SAARC Disaster Management Centre
SFA	SAARC Framework for Action SMRC
SAARC	Meteorological Research Centre
SOD	Standing Orders on Disaster
SPARRSO	Space Research and Remote Sensing Organisation
SSN	Social Safety Net
TAP	Technical Assistance Project
TAPP	Technical Assistance Project Proforma
TOT	Training of Trainers
TR	Test Relief

UDMC	Union Disaster Management Committee
UDMP	Union Disaster Management Plan
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
UNO	Upazila Nirbahi Officer
UZDMC	Upazila Disaster Management Committee
UZDMP	Upazila Disaster Management Plan
VDP	Village Defence Police
VGD	Vulnerable Group Development
WARPO	Water Resources Planning Organization
WASA	Water and Sewerage Authority
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization
WSSD	World Summit on Sustainable Development

## List of Tables

### **Chapter 2: Disasters in Bangladesh**

Table 1: Flood occurred in 2007	18
Table 2: Major cyclone that hit the Bangladesh coast	19
Table 3: Damage and loss by cyclone Sidr	22
Table 4: Some of the devastating nor'westers and tornadoes	23
Table 5: Centre for Environmental and Geographical Information Services	25
Table 6: BNBC 1993 as reproduced in Choudhury, 2005	26

### **Chapter 3: Disaster Management Policies for Women: Taken by Government of Bangladesh**

Table 5: Priority Spending Areas for Women's Advancement	41
Table 6: Women's Share in Ministry's Total Expenditure	41
Table 7: Priority Spending Areas and Benefits for Women's Advancement	52
Table 8: Women's Share in Ministry's Total Expenditure	52
Table 9: Progress with Women Empowerment in the Sixth Plan	62
Table 10: Global Gender Index on Political Empowerment	63
Table 11: Seventh Plan ADP Allocations for Social Protection	78

### **Chapter 4: Literature Review**

Table 12: Domain and dimension of gender and exclusion in Bangladesh	116
--	-----

### **Chapter 6 THE STUDY AREA: KOLAPARA**

Table 13: List of Maujas of unions and powroshova under the Kolapara upazilla; (Source: Upazilla Statistics Department, Kalapara),	143
Table 14: List of NGOs working with disaster in Kolapara	146
Table 15: List of Disaster, amount of loss, time of happening and damages and departments	148
Table 16: Information about recent disasters occurred at Kolapara	150
Table 17: Identification and prioritization of the hazards of this upazila	150

## List of Figures

### **Chapter 1: Introductory Part**

Figure 1 Illustration of disaster management	03
Figure 2 Feature of disaster	05
Figure 3 Graphic image of disaster management	05
Figure 4 Conceptual framework of disaster management	06
Figure 5 A disaster management cycle	07
Figure 6 Disaster Management	07
Figure 7 A way of policy making	08

### **Chapter 2: Disasters in Bangladesh**

Figure 8: Estimated damage from major types of natural disaster from 1990 to 1999	16
Figure 9: Disaster prone areas in Bangladesh	17
Figure 10: Cyclones Tracking Over Bangladesh During the Twentieth Century	19
Figure 11: Population density of coastal zone	21
Figure 12: Riverbank erosion prone area in Bangladesh	24
Figure 13: Earthquake zones	26
Figure 14: Droughts in Bangladesh	27
Figure 15: Types of hazards	29

### **Chapter 4: Literature Review**

Figure 16 Good governance and disaster management	107
---	-----

### **Chapter 6 THE STUDY AREA: KOLAPARA**

Figure 17: Location Kolapara union and other of Major areas of Kalapara Upazila	121
Figure 18: Main disaster according to opinion of respondents living the study area	140
Figure 19: Several changes made by disaster in the study area	156
Figure 20: Vulnerability of women in pre disaster period	157
Figure 21: Vulnerability of women in disaster period	158

Figure 22: Vulnerability of women in post disaster period	159
Figure 23: Feature of the forecast of disaster	165
Figure 24: Major problem for women of a shelter home	166
Figure 25: The key trouble occurs after disaster	169
Figure26: Role of women	174
Figure27: Necessary steps to empower women	177
Figure28: Key Points of Ensuring Women Friendly Disaster Management Policies	178

## List of Photos

### Chapter 1: Introductory Part

Photo 1: Women are ill prepared to cope with natural disaster	02
Photo 2: Ruins from the 1906 San Francisco earthquake, remem	03
Photo 3: Airplane crashes and terrorist attacks in September 11, 2001 at the World Trade Center in New York	03
Photo 4: Vulnerable populations affected by natural disasters	04
Photo 5: Rana Plaza incident	05
Photo 6: A woman attending disaster management training program	10

### Chapter 2: Disasters in Bangladesh

Photo 1: Disastrous Flood occurred in Bangladesh, 1988	18
Photo2: This vicious cyclone occurred on November 12, 1970 and caused the deaths of anywhere from 500,000 to 1 million people.	20
Photo 3: An aerial view of damage to villages and infrastructure following Cyclone Sidr, which swept into southern Bangladesh	20
Photo 4: Damages after occurring Tornadoe	22
Photo 5: River bank erosion	24
Photo 6: Kathmandu's Iandmark Dharahara tower before and after the earthquake	27
Photo 7: Rescuers are searching thorough rubble for survivors	28
Photo 8: Drought	28
Photo 9: Twenty-nine Bangladeshi workers who lost their lives in the sportswear factory fire	33
Photo 10: Incident of Rana Plaza accident	34
Photo 11: Picture of landslide	34
<b>Chapter 6 THE STUDY AREA: KOLAPARA</b>	
Photo 1: Karitash cyclone centre office	147
Photo 2: Name-plate of Karitash cyclone centre office	147
Photo 3: Ramp of the Karitash cyclone centre for special need people	147

Photo 4: Inside room of the Karitash cyclone centre	147
Photo 5: Researcher with two Karitash officers	147
Photo 6: A sanitary latrine at Kolapara	161
Photo 7: Tidal flow due to heavy rain	164
Photo 8: Heavy rain at Kolapara	168
Photo 9: Big tree be drowned half under water after having a good shower of rain	169
Photo10: Living place and sanitary situation at Rakhain para	172
Photo 11: Mariam khatun was crying while describing her miseries	173
Photo12: Mariam khatun and her neighbor were showing their in danger living place given by	173



## Abstract

In this study it is intended to depict that women equally with men would be oriented in dealing with disaster. Disasters, be in natural and human induced in nature, affect social and economic development of the country, gradually erode assets of citizens, increase social and economic inequity. Disaster will contribute to increased adverse impacts on human life. There are gender variations to vulnerability, capability and resilience. The impacts of disasters are differentiated for women and men and it makes far more severe for women. However, women perform a long range of activities in order to cope and adapt with different forms of disaster. General gender related discourse on disaster has been known, little has been done or promised, so far to address the vital issues. Establishing linkages between gender and mitigation has also been largely absent. The role of women are still not taken fully into account in policies, the needs of women are not considered in the development of new technology or the refinement of existing ones, and more often than not, women are under-represented in planning, decision-making and implementation in key sectors such as energy and transport, for example. Women are thus unable to voice their specific requirements and needs. Moreover, their potential as agents of change on mitigation also remains exploited. Women's extensive theoretical and practical knowledge of the environment and resource conservation is also not given due consideration in policy making despite their involvement fostering economic growth and socio-economic development, reducing poverty, keeping environmental problems in check, and increasing the wellbeing of societies as a whole. Women in the country do not have any access to modern energy or technology. In their role as the main providers of family and community care, they have different needs in terms of disaster management than most men and this need to be taken into account in policy development and implementation.

In a nation considered the most vulnerable to natural disasters in the world, women must be enabled to take on a bigger role in disaster preparedness and response.

Low access to power, institutional resources, transportation, sanitation and technology as well as a huge gap between policies and implementation are the key reasons for women's poor capacity to deal with the challenges.

<b>Table of Contents</b>	<b>Page no</b>
DECLARATION	i
CERTIFICATE	ii
Acknowledgement	iii
List of Abbreviations	iv - vii
List of Tables	viii
List of Figures	ix-x
List of Photos	xi-xii
Abstract	xiii
<b>Chapter 1: Introductory Part</b>	<b>1-15</b>
1. Background	
2. The Meaning of Disaster	
3. Sort of Disaster	
• Natural Disaster	
• Man Made Disasters	
4. Definition of Disaster Management	
• Pre Disaster Management Phase	
• Disaster Phase	
• Post Disaster Management Phase	
• Response Phase	
• Recovery Phase	
• Risk Reduction Phase	
• Preparedness Phase	
5. The attribute of Disaster Management Policy	
6. Role of Women in Disaster Management Policy	
• Division of Labour	
• Division of Resources	
• Needs	
7. Objective of the Study	
• General Objective	
• Specific Objectives	
8. Rationale of the study	

9. Methodology
  - Primary sources
  - Secondary sources
10. Research Location
11. Significance of the Research

## **Chapter 2: Disasters in Bangladesh**

**16 – 35**

12. Flood
  - Flood Types in Bangladesh
  - Floods differ in
13. Cyclones and Storm Surges
14. The Super Cyclone Sidr-2007
15. Tornadoe
16. River Bank Erosion
17. Earthquake
  - World's deadliest recent earthquakes
  - Nepal Earthquake 2015
18. Drought
19. Climate Change Impact
20. Fresh water resources and their management
21. Ecosystem
22. Food productionCoastal systems and low-lying areas
23. Arsenic Contamination
24. Salinity Intrusion
25. Tsunami
26. Fire
27. Infrastructure Collapse
28. Rana Plaza
29. Landslide

### **Chapter 3: Disaster Management Policies for Women: Taken by Government of Bangladesh 36-109**

#### 30. Ministry of Disaster Management and Relief

- Mission
- Functions and Activities:
- The Ministry is Mandated to Carry out the Following Responsibilities:
- Special Programme for Women Empowerment
- Strategic Objectives of the Ministry and Their Relevance with Women's Advancement and Rights
- Roles and Responsibilities of the Ministry for Women's Advancement and Rights
- Success in Promoting Women's Advancement
- Ministry of Disaster Management and Relief (MoDMR) also Recommended Some Activities for Future

#### 31. Department of Disaster Management (DDM)

- Vision
- Mission
- Programmes
- CDMP II is Designed Around the Following Six Interrelated Outcome Areas:
- Cyclone Preparedness Programme (CPP)
- Pre Disaster and During Disaster Activities

#### 32. Ministry of Environment and Forest (MOEF), Bangladesh

#### 33. Department of Environment

- DOE's Mission

#### 34. Bangladesh Climate Change Trust (BCCT)

- Special Programme for Women Empowerment
- Major Functions of the Ministry
- Strategic Objectives of the Ministry and their Relevance with Women's Advancement and Rights
- Relevance of the Roles and Responsibilities of the Ministry for Women's Advancement and Rights

#### 35. National Action Plan 2020

- Success in Promoting Women’s Advancement
  - Recommendations for Future Activities
36. Ministry of Food and Disaster Management
- GoB Vision on Disaster Management:
  - MoFDM Mission:
  - Strategic Focus for Disaster Management
37. Disaster Management Bureau
- Mission
  - Disaster Reduction Goal
  - National Policy and Plans
38. Bangladesh: National progress Report on the Implementation of the Hyogo Framework for Action (2009-2011)
- Gender Perspectives on Risk Reduction and Recovery Adopted and Institutionalized
39. Bangladesh: National Plan for Disaster Management 2010-2015
40. Bangladesh: National Disaster Management Plan 2008-2015 draft (2008)
- Millennium Development Goals
  - Poverty Reduction Strategy Paper (PRSP), Bangladesh
41. Hyogo Framework for Action (HFA), 2005-2015
42. United Nations Framework Convention on Climate Change (UNFCCC)
43. National Adaptation Programmes of Action (NAPA)
- Adaptation Measures as Prioritized in Bangladesh NAPA
44. SAARC Framework for Action (SFA) 2006-2015
45. Bangladesh Climate Change Strategy and Action Plan 2009
- The Objectives of this Plan are to:
  - The Core Principles of this Plan Have Been Adopted from the PRSP.
  - Vulnerability Assessment
  - Risk Treatment
  - Management Aspects of Shelter Center in Coastal Zones
46. Sixth Five Year Plan; FY2011 – FY2015; General Economics Division (GED) Planning Commission Government of the People’s Republic of Bangladesh

- Implementation
- Progress With of Strategies During 6th Plan

47. SEVENTH FIVE YEAR PLAN; FY2016 – FY2020; (Accelerating Growth, Empowering Citizens)

- General Economics Division (GED) Planning Commission Government of the People’s Republic of Bangladesh
- Gender Strategy for the Seventh Plan
- Increase Access to Human Development Opportunities
- Life Cycle Based Disease Prevention and Curative Healthcare Services
- Equal Access to Nutrition
- Modern Reproductive Health and Family Planning Services
- Women’s Decision Making Over Reproductive Health
- Quality Formal Education
- Marketable Technical and Vocational Education Including ICT
- Safe Water and Sanitation Services
- Freedom from Violence
- Ending Child Marriage
- Participation in Sports and Culture
- Protection and Development of Differently Able Women
- Enhance Access to and Control Over Productive Resources
- Short and Long Term Access to Decent and Harassment Free Employment
- Secure Employment in Public and Private Sectors –Domestic and Abroad
- Opportunities for Higher-Value Self-Employment
- Financial and Business Development Services for Entrepreneurship
- Reduce and Prevent Violence and Sexual Harassment in Workplaces and Public Spheres
- Access to Support Services
- Access to Markets and Productive Assets (land, seeds, fertilizers and extension services)
- Increased Ownership of Land and Productive Resources

- Access to, and Decision-Making Over, Community Resources (water body, land, forest)
- Access to Technology and Information (a2i)
- Access to Energy
- Increase Participation and Decision Making
- Participation in National Politics and Local Government
- Strengthened Knowledge and Capability to Participate in Public Sphere
- Representation or Leadership in Public Institutions, Business and Trade
- Enforcement of Targets for Women's Representation at all Levels
- Membership and Leadership in Associations and Decision Making Forums
- Establish Conducive Legal and Regulatory Environment
- Removal of all Discriminatory Provisions in all Laws and Policies
- All Laws Effectively Enforced to Uphold Rights of Women and Girls
- Rights of the Girl Child Recognized and Upheld in Laws and Policies
- Accountability of Law Enforcers
- Social Protection Addressing Gender Inequalities and Gender Dimensions of Poverty and Shocks
- Sustainable Development: Environment and Climate Change
- Disaster Management Context for Bangladesh
- Main Streaming Risk Reduction – The Strategies
- Development Resource Allocation in the 7<sup>th</sup> Plan

#### 48. Sendai Framework for Disaster Risk Reduction 2015 – 2030

- Hyogo Framework for Action: Lessons Learned, Gaps Identified and Future Challenges
- Expected Outcome and Goal
- Guiding Principles
- Priorities for Action
- International Cooperation and Global Partnership
- General Considerations
- Means of Implementation

- Support from International Organizations
- Follow-up Actions

49. National Plan for Disaster Management 2010-2015

50. Disaster Management Bureau Disaster Management & Relief Division April 2010

- Disaster Management System in Bangladesh
- Implementation of Seventh Plan Gender Strategy
- DM in Bangladesh has been Guided by a Number of National and International Drivers Which Among Others Includes

#### **Chapter 4: Literature Review**

**110-126**

51. Sectoral Inputs Towards the Formulation of Seventh Five Year Plan (2016 – 2021)

Climate Change and Change and Disaster Management Ahsan Uddin Ahmed, Saleemul Haq, Mahbuba Nasreen and Abu Wali Raghieb Hassan

- On Disaster Risk Reduction

52. Female Victims of Disaster Get Lower Chance to Struggle; Women in Disaster, Bangladesh 2014; Bangladesh Disaster Report; Foundation for Disaster Forum.

53. Disaster Management Discourse in Bangladesh: A Shift from Post-Event Response to the Preparedness and Mitigation Approach Through Institutional Partnerships C. Emdad Haque and M. Salim Uddin; [<http://dx.doi.org/10.5772/54973>]

54. Disaster Risk Reduction Approaches in Bangladesh; Rajib Shaw , Fuad Mallick, Aminul Islam Gender and Social Exclusion Analysis in Disaster Risk Management (Chapter 16); A.K.M. Mamunur Rashid and Hasan Shafie

55. Disaster Resistance and Sustainable Development; An article published on 31 March 2015 at a daily news paper named ‘Somokal’. Dr. Mahbuba Nasreen; Director and Professor of Institute of Disaster Management and Vulnerability Studies; University of Dhaka.

56. Conveying the Warning to Women is an Emergency; Women in Disaster Report; Bangladesh Disaster Report- 2014; Disaster Forum

57. In Disaster Period Have to Keep Special Sight for the Protection of Women; An Interview published on 17 December 2015 at ‘Prothom Alo’, a daily news paper.



Khandaker Makkadem Hossain, Professor, Institute of Disaster Management and Vulnerability Studies; University of Dhaka.

58. It Is Important To Have Gender-Wise Data On Disaster; Women in Disaster, Bangladesh 2014; Bangladesh Disaster Report; Foundation for Disaster Forum.

59. Natural Disasters: Socio-Economic Impacts in Bangladesh

Mohammad Morad Hossain Khan, Assistant Professor, University of Liberal Arts Bangladesh (ULAB). Nazmun Nahar, Senior Lecturer, Northern University Bangladesh.

60. RESILIENT; Bangladesh; UNDP Bangladesh Annual Report 2013 – 2014

- Inclusive and Effective Democratic Governance
- Targeted
- Gender Equality:
- Poor Women Become City Councilors
- Promoting women’s leadership and decision making at the local level
- Faster, Fairer, Gender-Responsive and Accessible Justice
- Women’s Access to Justice
- Indicative Gender Equality Results

61. Good Governance and Disaster Management; Bangladesh Disaster Year Report- 2013; Disaster Forum, Dhaka, Bangladesh.

- Community based approach
- Towards disaster and good governance
- Role of Women in Disaster Management and Good Governance
- The Necessity of Studying Disaster Management Policies in Political Science Context
- Exception Point of My Study than Other Researches

## **Chapter 5: Expert’s Opinion**

**127-139**

62. ‘Not Yet Women Friendly: The Process has Begun Though’ –Dilruba Haider

63. ‘We are Trying; We have Progressed a Quite a bit’. Hasin Jahan

64. ‘Women Preserve Seed During Disaster? Farida Akhter

65. ‘Decision Should be Taken Regarding Women After Talking to Women’. Murshida Akhter

66. ‘And Miles to Go’. Farah Kabir

67. ‘Substantial Progress Made’. Mahabuba Nasreen  
 68. ‘There is no negligence in our effort’. Ali Ahmed Khan  
 69. ‘Need to Change the Mindset to Start With’. Abu Bakar Siddique

## **Chapter 6: THE STUDY AREA: KOLAPARA**

**140-181**

70. Justification of Study Area Selection  
 71. Historical Background  
 72. Geographical Position of the Study Area
- Population
  - Cultural Diversity
  - Livelihood Pattern
73. Administrative  
 74. Infrastructural and Non-infrastructural Resources of Kolapora Union  
 75. Communication and Mode of Transportation
- River
76. Social Wealth  
 77. Several Governmental Projects in the Village  
 78. List and Activities of Supporting Organization  
 79. Some Illustrations of One of the Foremost NGOs in Kolapara Named Karitash  
 80. History of Disasters at Kolapara  
 81. Main Hazards of This Upazila  
 82. Detailed Description of Different Hazards, Present and Future State
- Cyclone
  - Surge
  - Salinity
  - Riverbank Erosion
  - Flood or Coastal Flooding
  - Water Logging
83. Data Collection
- Primary Data
  - Secondary Data

84.	Research Design and Data Collection Method	
85.	Data Processing Method, Statistical Tools and Techniques	
86.	Data from Field Study	
87.	How Women Affected and Become Vulnerable by Disaster	
88.	Data Analysis	
89.	The Policies Taken for Women in Disaster Management Plan in Bangladesh	
90.	Whether the women are benefited by these policies or not	
91.	Data Examination	
92.	The policies needed to be implemented for women.	
93.	Case Study 1	
94.	Case Study 2	
95.	Role of women	
96.	Vulnerability of Women in Disaster Period	
97.	Result of vulnerability	
98.	Empowerment of Women	
99.	Female Respondents of the Study Demanded Circle of Disaster Management	
100.	Data Assessment and Findings	
101.	Recommendation	
102.	Conclusion	
<b>103.</b>	<b>Reference</b>	<b>182-185</b>
<b>104.</b>	<b>Appendices</b>	<b>186-187</b>

# **Chapter 1**

## **Introductory Part**

Bangladesh is low-laying deltaic country in South Asia. It is dominated by the low-laying Ganges Delta which is formed by the confluence of the Padma, Brahmaputra and Meghna rivers and their respective tributaries. More than 310 rivers and tributaries have made this country a land of rivers. Most parts of Bangladesh are less than 12 m (39.4 ft) above sea level and it is estimated that about 10% of the land would be flooded if the sea level were to rise by 1 m (3.28 ft).

Bangladesh, a highly disaster – prone country, suffers a lot almost every year from various natural disasters. The geographical location, land characteristics, multiplicity of rivers and the monsoon climate render Bangladesh highly vulnerable to natural hazards. The coastal morphology of Bangladesh influences the impact of natural hazards on the area. Especially in the south western area, natural hazards increase the vulnerability of the coastal dwellers and slow down the process of social and economic development.<sup>1</sup>

Significant country features include:

- A vast network of rivers and channels
- An enormous discharge of water heavily laden with sediments
- A large number of islands in between the channels
- A shallow northern Bay of Bengal and funneling to the coastal area of Bangladesh
- Strong tidal and wind action

Since Bangladesh is most vulnerable to several natural disaster and natural calamities upset people's live, it is the responsibility of the state and government to protect people through managing disaster in a holistic manner engaging the entire government machinery.

## **Background**

The country's propensity to natural disaster is due to various environmental factors, its geographical location and various human induced hazards. Bangladesh frequently faces the problem of disasters which creates lose of lies, assets, production and economic growth. Bangladesh is exposed to natural disasters such as floods, river erosion, cyclones, droughts, tornadoes, cold waves, earthquakes, drainage congestion or water logging, arsenic contamination, salinity intrusion and landslide.

Recent estimates suggest that about 4 percent of the world's cyclones hit Bangladesh and that damage and losses to the country amount to about 96 percent of the global total. In November 1970, Bangladesh's coastal regions were devastated by a cyclone that killed more than 300,000 people and caused over \$2.5 billion of property damage. More recently, floods in 1988 and 1998 brought immense suffering to the population. Agricultural production was disrupted and the country's economy was severely affected in 1998, when nearly two thirds of the country was under water for three months. Bangladesh government and the general people also have done their best to prevent and mitigate natural disaster, but there is an overwhelming need to strengthen the country's disaster preparedness and management capabilities.<sup>2</sup>

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<sup>1</sup> Disaster Management Bureau; Disaster Management and Relief Division.

<sup>2</sup> Bangladesh Support for Disaster Management, United Nations Development Programme.

In Bangladesh women are made more vulnerable to disaster through their socially constructed roles. Women have less access to resources-social networks and influence, transportation, information, skill including literacy, control over land and other economic resources, personal mobility, secure housing and employment, freedom from violence and control over decision-making-that are essential in disaster preparedness, mitigation and rehabilitation.



Photo 1: Women are ill prepared to cope with natural disaster

## The Meaning of Disaster

One of the most difficult concepts in the literature is to arrive at a definition of a disaster. There have been many attempts to define disasters, but all run into the problem of either being too broad or too narrow. Having a definition of a disaster is extremely important for identifying which events to include or exclude from analysis.

Some mentionable definitions are following-

*“Any occurrence that causes damage, ecological disruption, loss of human life or deterioration of health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community area.”*<sup>3</sup>

*“A disaster is a situation or event which overwhelms local capacity, necessitating a request to a national or international level for external assistance.”*<sup>4</sup>

*“A disaster is a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.”*<sup>5</sup>

*“Something (such as a flood, tornado, fire, plane crash, etc.) that happens suddenly and causes much suffering or loss to many people.”*<sup>6</sup>

*“A disaster is a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community’s or society’s ability to cope using its own resources. Though often caused by nature, disasters can have human origins.”*<sup>7</sup>

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<sup>3</sup> World Health Organization; Emergency and Humanitarian Action Department

<sup>4</sup> The Center for Research on the Epidemiology of Disasters (CREED) in Brussels, Belgium

<sup>5</sup> <http://en.wikipedia.org/wiki/Disaster>

<sup>6</sup> <http://www.merriam-webster.com/dictionary/disaster>

<sup>7</sup> <https://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/>



Photo 2: Ruins from the 1906 San Francisco earthquake, remembered as one of the worst natural disasters in United States history



Photo 3: Airplane crashes and terrorist attacks are examples of man-made disasters: they cause pollution, kill people, and damage property. This example is the September 11 attacks in 2001 at the World Trade Center in New York.

Disaster can be illustrated by the following figure:

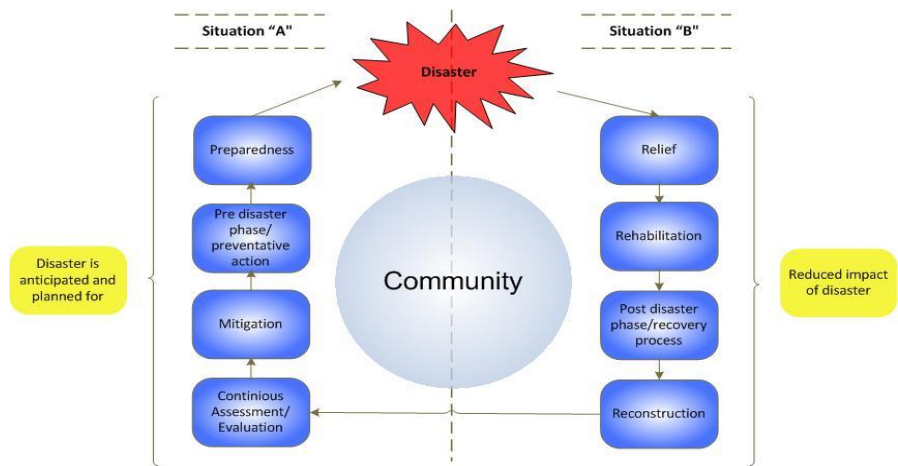


Figure 1 Illustration of disaster management

In fine, disaster can be figure out with taking into account these definitions as cause of damage of ecology and human life. It disrupts functions of community and society. It also raises necessity of seeking external assistance from national or international level.

### **Sort of Disaster**

Disasters are mainly of two types

1. Natural disaster
2. Manmade disaster

### **Natural Disaster**

Natural disaster are naturally occurring physical phenomena caused either by rapid or slow onset events which can be -

*Geophysical:*

Earthquakes, landslides, tsunamis and volcanic activity;

*Hydrological:*

Avalanches and floods

*Climatologically:*

Extreme temperatures, drought and wildfires;

*Meteorological:*

Cyclones and storms or wave surges;

*Biological:*

Disease epidemics and insect/animal plagues;



Photo 4: Vulnerable populations affected by natural disasters

### **Man Made Disasters**

Man-made disasters are events that are caused by humans and occur in or close to human settlements. This can include -

*Environmental Degradation:*

Complex emergencies or conflicts, famine, displaced populations, industrial accidents and transport accidents, pollution and accidents.

Man-made disaster is also called technological disaster.





Photo 5: More than 1100 people died and thousands of people were injured in the collapse of the eight-storey building named Rana Plaza located next to the Savar Bus Stand. It is considered as the most man-made hazard of Bangladesh. This photograph named 'Final Embrace' captured by Women's rights activist Taslima Akhter won prizes at the World Press Photo contest.

Total feature can be represented by following table-

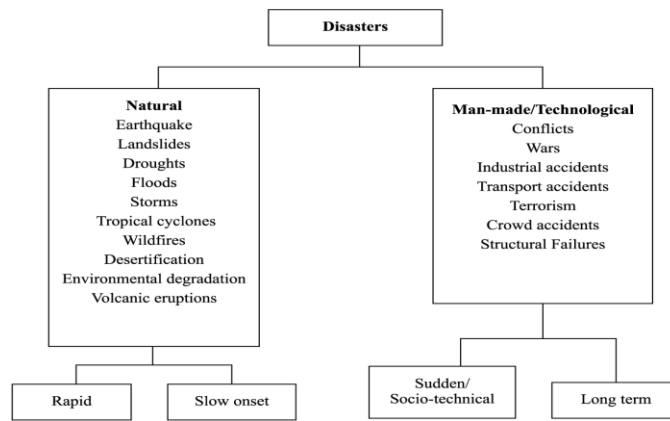


Figure 2 Feature of disaster

The phases of all disasters, perhaps it natural or man-made, are the same. The disasters often differ in quantity of damage caused or in quality of the type of medical consequences. For instance, earthquakes cause a lot of physical injury and fractures, floods cause drowning deaths and infections, chemical leaks cause toxic manifestations.

### Definition of Disaster Management

Disaster management usually refers to the management of natural catastrophes such as fire, flooding, or earthquakes. Related techniques include crisis management, contingency management, and risk management.

The Red Cross and Red Crescent National Societies define -

*“Disaster Management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters.”*<sup>8</sup>

In conformity with International Federation of Red Cross and Red Crescent National Societies definition the graphic image of disaster management is below-<sup>9</sup>

<sup>8</sup> <https://www.ifrc.org/en/what-we-do/disaster-management/about-disaster-management/>

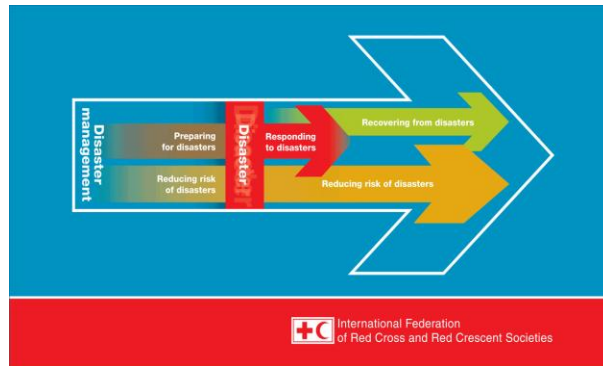


Figure 3 Graphic image of disaster management

Disaster management includes the development of disaster recovery plans, (for minimizing the risk of disasters and for handling them when they do occur,) and the implementation of such plans.

There are two phases of disaster management. Through diagram that are-

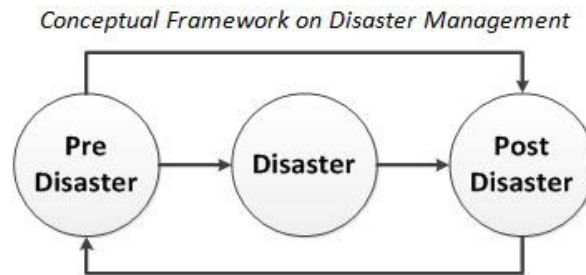


Figure 4 Conceptual framework of disaster management

Disaster management is the discipline of dealing with and avoiding risks. It involves preparing for a disaster before it happens, disaster response such as emergency evacuation, quarantine, mass decontamination, as well as supporting, and rebuilding society after natural or human-made disasters have occurred.

**Pre Disaster Management Phase**

This phase involves the development of awareness among the population on the general aspects of disaster and on how to behave in the face of a future disaster. This includes education on warning signs of disasters, methods of safe and successful evacuation and first aid measures.

**Disaster Phase**

This phase is characterized by profound damage to the human society. This damage may be that of human life, loss of property, loss of environment, loss of health or anything else. In this phase, the population is taken by profound shock.

<sup>9</sup> <https://www.ifrc.org/en/what-we-do/disaster-management/about-disaster-management/>

## Post Disaster Management Phase

It consists of a number of elements, for example; warning, search and rescue, providing immediate assistance, assessing damage, continuing assistance and the immediate restoration of infrastructure. The aim of emergency response is to provide immediate assistance to maintain life, improve health and support the morale of the affected population. Such assistance may range from providing specific but limited aid, such as assisting refugees with transport, temporary shelter, and food, to establishing semi-permanent settlement in camps and other locations. It also may involve initial repairs to damaged infrastructure. The focus in the response phase is on meeting the basic needs of the people until more permanent and sustainable solutions can be found. Humanitarian organizations are often strongly present in this phase of the disaster management cycle.<sup>10</sup>

Disaster management includes the development of disaster recovery plans, (for minimizing the risk of disasters and for handling them when they do occur,) and the implementation of such plans. In general, any disaster management is the continuous process by which all individuals, groups, and communities manage hazards in an effort to avoid or ameliorate the impact of disasters resulting from the hazards.

A disaster management cycle has been shown by a chart-

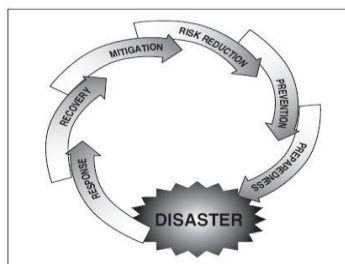


Figure 5 A disaster management cycle

Explanation of this chart is below-

### **Response Phase**

This is the period that immediately follows the occurrence of the disaster. In a way, all individuals respond to the disaster, but in their own ways.

### **Recovery Phase**

When the immediate needs of the population are met, when all medical help has arrived and people have settled from the hustle – bustle of the event, they begin to enter the next phase, the recovery phase which is the most significant, in terms of long term outcome. It is during this time that the victims actually realize the impact of disaster. It is now those they perceive the meaning of the loss that they have suffered.

### **Risk Reduction Phase**

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<sup>10</sup> [http://en.wikipedia.org/wiki/Disaster\\_response](http://en.wikipedia.org/wiki/Disaster_response)

During this phase, the population has returned to pre disaster standards of living. But, they recognize the need for certain measures which may be needed to reduce the extent or impact of damage during the next similar disaster.

### **Preparedness Phase**

This phase involves the development of awareness among the population on the general aspects of disaster and on how to behave in the face of a future disaster. This includes education on warning signs of disasters, methods of safe and successful evacuation and first aid measures. It is worth to note that the time period for each phase may depend on the type and severity of the disaster.

As a final point disaster management can be figure out by a figure –



Figure 6 Disaster Mangement

The nature of emergency management is highly dependent on economic and social conditions local to the emergency, or disaster. Experts have long noted that the cycle of emergency management must include long-term work on infrastructure, public awareness, and even human justice issues. This is particularly important in developing nations.

### **The attribute of Disaster Management Policy**

The purpose of Disaster Management Policy is to reduce the underlying factors of risk and to prepare for and initiate an immediate response should disaster hit. The Disaster Management Policy provides the basis to address public commitment and institutional systems, including organizational capacities, legislation and community action, as well as environmental management, land-use, urban planning, protection of critical facilities, application of science and technology, partnership and networking, and financial instruments.

The Disaster Management Policy also provides the space to positively value and constructively includes communities' and households' traditional coping strategies and recognizing the importance of their ownership in the Disaster Management Policy execution process.

Effective Disaster Management Policy relies on thorough integration of emergency plans at all levels of government and non-government involvement. Activities at each level such as individual, group, community affect the other levels. It is common to place the responsibility for governmental emergency management with the institutions for civil defense or within the conventional structure of the emergency services. In the private sector, emergency management is sometimes referred to as business continuity planning.

Through chart a way of policy making is showed below –

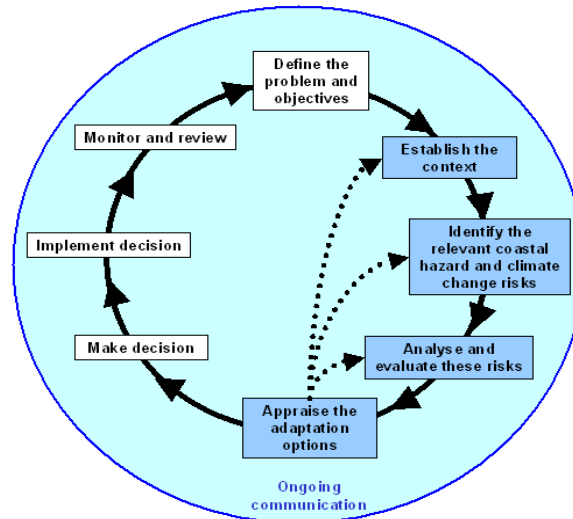


Figure 7 A way of policy making

This chart shows to make disaster management policy have to do to ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation. Identify, assess and monitor disaster risks and enhance early warning. Use knowledge, innovation and education to build a culture of safety and resilience at all levels. Reduce the underlying risk factors. Strengthen disaster preparedness for effective response at all levels.

### **Role of Women in Disaster Management Policy**

A gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training. In most societies the women is defined as having less power and fewer opportunities, privileges and rights than the man.

It is important to have a clear understanding of “who does what” within a society. A gender analysis helps identify difference between men and women in terms of activities, conditions, needs, and control over resources and access to development benefits and decision-making. Three elements need to be examined -

#### **Division of Labour**

Men commonly are involved in the productive sphere whereas women often carry the reproductive tasks of caring for children, elderly and the sick, as well as running the household. Differences in social stature, wages or access to decision-making due to a gendered division of labour must be considered.

#### **Division of Resources**

Access to capital assets and control over resources impacts an individual or household’s ability to mitigate the effects of disaster.

#### **Needs**

Practical and strategic needs differ greatly between men and women.

Women, girls, boys and men belonging to different socio-economic groups have distinct vulnerabilities, which shape the way they experience disaster and how they recover from it. When disasters occur, the mortality rate for women higher because they aren’t warned, have

not been taught to swim or have behavioral restrictions that limit their mobility in face of risk, such as leaving the house alone.

When planning for disaster, one must be able to examine the needs and constraints shaped by gender.



Photo 6: A woman attending disaster management training program

## Objective of the Study

The need to mainstream gender within disaster management policies has arisen from the realization that not only were women among the most affected by natural and human-caused disasters, but that they were also the community requiring most support in the post-disaster environment since they bore primary responsibility for care of the young, the elderly, the sick and those living with disabilities.

## General Objective

### Enhancing the initiatives taken for women in disaster management policy in Bangladesh

According to relief agencies, women and children are particularly affected by disasters: in addition to the overall impact of the disaster on the general community, the breakdown of infrastructure, displacement and isolation, collapse of familial and social support networks all specifically add to women's burdens in their social roles, while increasing women's vulnerability, especially to sexual and domestic violence. The loss of male bread winners and the male heads of household and livelihoods also contribute to increasing women's burdens and responsibilities. Therefore it is significant to enhance the initiatives have been adopted for women in disaster management policy in Bangladesh.

## Specific Objectives

### To explore how women are affected by disaster

A woman's pre-disaster familial responsibilities and roles are magnified and expanded by the onset of a disaster or emergency, with significantly less support and resources for those roles. Women's lack of skills - including literacy, especially in countries with less access of women to education - combined with their lack of experience in the public sphere, makes it difficult for them to engage with relief and emergency response mechanisms that do not pay adequate attention to these realities. Women are most present in areas of employment within

the agricultural and informal sectors, which are often the worst affected by disasters; thus the rates of unemployment among women after a disaster are inordinately high. Consequently, through this research need to explore how women are affected by disaster.

*To identify the vulnerabilities and difficulties that result from disaster for women*

In the aftermath of a disaster, women are compelled to take on a central role within the family, securing relief from emergency authorities, meeting the immediate survival needs of family members and managing temporary relocation, among other matters. Temporary shelters allocated for those displaced by disasters often lack essential facilities and are overcrowded for instance, there is often no privacy for women in bathing and toilet areas. Although the UNHCR Guidelines for Protection of Refugee Women explicitly stipulates the need to have separate covered bathing areas for women, along with adequate lighting and perimeter fencing to provide security and privacy, these Guidelines are often disregarded.

*To identify the policies taken for women in disaster management plan in Bangladesh*

Social structures that controlled and constrained the lives of women played a significant role in heightening the actual impact of the disaster on women. The average woman, for example, has virtually no knowledge or experience of climbing and swimming; social and cultural norms dictate that these are not ‘womanly’ activities. Thus, during the disaster, women were particularly handicapped in escaping the waves or collapsing buildings. Since many women have long hair, which is seen as a symbol of womanhood, there were cases in which women were trapped under water by entangled long hair. In the face of the incoming waves, some women delayed escaping or, chose to remain in unsafe locations, because of their role as care-givers to family members who could not easily be transported - the sick, the disabled, the elderly and children.

The reconstruction of infrastructure took place without due consideration for the specific needs of women; this was particularly so in the case of the health infrastructure, where easy access is crucial for women. Consideration of the specific needs and concerns of women was, can safely say, very low on the agenda of planners and decision-makers.

*To explore how the women are benefited by these policies*

Women constitute a valuable human resource in terms of disaster response. They have an intimate knowledge of their communities and the vulnerabilities and needs of individuals within their communities, which can provide an invaluable data base on which reconstruction and recovery programmes can be developed.

In the context of disasters women are not only victims and survivors, but are also key actors in re-building communities in a sustainable manner. Thus, developing women’s capacities to mitigate disaster risks and harmful post-disaster impacts has become a focus area of work in disaster management.

Post-disaster situations pose particular opportunities for women, as well as risks and dangers. Disaster response programming must be aware of the existence and impact of gender relations and gendered roles in society and within communities and, design and plan responses in a gender-sensitive and gender-aware manner. For example, one key learning has been the need to ensure that re-settlement and livelihood programmes do not strengthen and perpetuate male control over economic resources during a reconstruction phase in post-disaster situations. Ensuring women’s involvement and participation in disaster response planning programmes at

every level has now been identified as a critical factor in enabling sustainable reconstruction after disasters.

*To identify the policies needed to be implemented for women*

The social construction of vulnerability to disasters particularly based on the basis of gender relations. The policy and research implications for using existing knowledge about gender, work and employment in the context of disasters, women's economic insecurity has been dramatically increase and also increase their workload that is a consequence of surviving disasters.

Since both women and men have specific short-term needs and long-term interests in disasters and women are key economic actors throughout the disaster cycle of preparedness, mitigation, relief, and reconstruction and that women's economic vulnerability to future disasters is increased by lack of attention to gender equity and equality in disaster interventions.

Hence, it is necessary to identify the policies needed to be implemented for women.

*Exploring the scope of women in the process of disaster management where they can play effective role.*

In each of these above-mentioned areas of intervention, gender mainstreaming calls for attention to be paid to existing social structures of gender relations, which result in the unequal status of women and the systemic and systematic discrimination against women that limits their capabilities and renders them vulnerable to exploitation and abuse of all forms. It calls for a specific emphasis on the participation of women in all processes which design and build programmes and policies for disaster management and mitigation as well as for disaster relief and response as well as post-disaster reconstruction. Effective gender mainstreaming in disaster management as well as in post-disaster programming also calls for legal and policy reforms that would transform gender relations in order to make them more equitable and to offer women guarantees for equality in dignity and in rights.

## **Rationale of the study**

Women are more vulnerable to the effects of natural disaster than men- primarily as they constitute the majority of the poor and are more dependent for their livelihood on natural resources that are threatened by natural disaster. Furthermore, they face social, economic and political barriers that limit their coping capacity. Women in Bangladesh are especially vulnerable when they are highly dependent on local natural resources for their livelihood. Those charged with the responsibility to secure water, food and fuel for cooking and heating face the greatest challenges. Secondly, when coupled with unequal access to resources and to decision-making processes, limited mobility places women in Bangladesh in a position where they are disproportionately affected by disaster. It is thus important to identify gender-sensitive policies to respond to the crises caused by natural disasters.

It is important to remember, however, that women are not only vulnerable to natural disaster but they are also effective actors or agents of disaster in relation to strengthen the country's disaster preparedness and management capabilities. Women often have a strong body of knowledge and expertise that can be used in disaster reduction and adaptation strategies. Furthermore, women's responsibilities in households and communities, as stewards of natural and household resources, positions them well to contribute to livelihood strategies adapted to hanging environment realities.



The Disaster Management and Relief Division (DM & RD), Ministry of Food and Disaster Management (MoFDM) of the Government of Bangladesh has the responsibility for coordination national disaster management efforts across all agencies. In January 1997 the Ministry issued the Standing Orders on Disaster (SOD) to guide and monitor disaster management activities in Bangladesh. The SOD has been prepared with the avowed objective of making the concerned people understand their duties and responsibilities regarding disaster management at all levels, and accomplishing them. All Ministries, Divisions and Agencies shall prepare their own Action Plans in respect of their responsibilities under the Standing Orders for efficient implementation. The National Disaster Management Council (NDMC) and Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) will ensure coordination at District, Thana and Union levels will be done by the respective District, Thana and Union Disaster Management Committees. The Disaster Management Bureau will render all assistance to them by facilitating the process. A series of inter-related institutions, at both national and sub-national levels have been created to ensure effective planning and coordination of disaster risk reduction and emergency response management.

In National Disaster Management plan, in every level District, Thana and Union levels it is noted that recovery plans and procedures delineating damage assessment procedure, restoration of damaged public infrastructure, resumption of educational institutions restoration of livelihood, rehabilitation of affected people, especially the disabled, and elderly women and children. But there is no more emphasis on women's participation in disaster management process.

To minimize wastage, maximize infrastructure and development investment and its maintenance, in disaster relief and reconstruction –

- Policy and program support needed;
- Women need adequate representation at all levels of decision making;
- Women's self help groups access to capacities and resources for livelihoods;
- Women shags to play key roles in relief coordination, recovery plans for housing and services;
- and sustain rehabilitation results towards sustainable development;

The importance of women's participation in disaster management has recently become increasingly acknowledged. People's participation is an instrument for environmental protection. It is a relatively new phenomenon in the whole decision making process. The fact is more applicable in the case of women, especially the women of developing countries. Women suffer many inequities and as a result are the majority of the world's poor. Bangladesh also belongs to these developing countries. Women in this country naturally and historically hold the key position of sustainability aspect including social, economic and environmental management. Rural women play the most important role in decision making in case of utilizing the natural resources. But unless women's participation is not ensured in the path of disaster management process, it will certainly be not sustainable. Because any suitable process which aims to save the environment must have built into it, the involvement of the women in the decision making, planning, advising and extension work in the field. Through this whole research will explore the present situation, possibilities and scopes of women in the phenomena of disaster.

## **Methodology**

The research based on social science research method. Qualitative method followed in order to conduct my fieldwork. I directly participated in the field to make close connection with the participants. There were two sources of data collection –

1. Primary sources
2. Secondary sources

### **Primary sources**

Through direct participation, observation, questionnaire survey and case study, focus group discussion most of the data collected from the primary sources.

### **Secondary sources**

Some published materials used for the research. All these were very helpful for the better understanding of the situation and for the betterment representation of the information.

Besides direct participation and observation in the field, the following techniques also used for conducting the field work-

- Observation and participation observation;
- Informal interview;
- Case study;
- Rapport building;
- Focus group discussion;
- Using audio-visual technique;
- Diary maintaining

### **Research Location**

In order to conduct this research field work had to be selected disaster prone area of Bangladesh. Therefore Kolapara union under Kolapara upazila in Patuakhali district has been selected as field work.

### **Significance of the Research**

Women have an important and far reaching role to play in instilling in their children, through reasoning and example, consult for the environment. In this role, women teach best by example. So women can be helpful for creating a better human resource.

In carrying out domestic duties, women are in intimate, daily contact with their immediate environment as users and collectors of fuel, food, water. Women in rural parts of the country collect fruits, nuts, and leaves from forests for food. In a real sense women determine a crucial part of the nutrition of the country. They also grow much of the country's food.

Women in rural areas manage water supply in home. To do this they have to carry water which is a tiring and time consuming task. They are responsible for safeguarding health by providing potable water and water for hygiene. They are also responsible for conserving supplies.

Rural women as consumer play a vital part in conserving fuel, food and water. They also play an important role in protecting other environmental resources. For instant, they can contribute to halting ozone depletion by choosing environmentally friendly products.

Women are controllers of population growth. Through family planning, women help in controlling population growth. Therefore, there is need for an increase in efforts to educate

rural women on family planning, as majority of the population live in village and they are deprived of proper information. To be effective, all such efforts must take into account traditional practices and views about contraception and the relationship between population's growth and resource consumption.

As the foregoing discussion shows, women are in a position to influence attitudes to, and use of, the environment. Their choice in using natural resources affects not only the environment but also their own and their family's health. However, if their influences are to be positive, they need training, land, credit and simple conservation technologies. So, it is clear that if we could build a bridge between rural women of the country and sustainable development then it will simply make the way smoother, thus the significance of the study.

We should give emphasize the need for a shift in disaster policy and intervention. With respect to clear recognition that gender dimension to disaster response is important. Practical needs of women, this shift should be based on addressing practical aspects, strategically involving women in relief phase. Women's group faced extreme opposition strategically involving women group's in relief phase. Women faced extreme opposition from traditional male dominated community leaders. Support of government in bringing women out and involving them disaster management process is a need of this time.

## **Chapter 2**

# **Disasters in Bangladesh**

## Disasters in Bangladesh

Bangladesh is exposed to natural hazards, such as, floods, river erosion, cyclones, droughts, tornadoes, cold waves, earthquakes, drainage congestion, water logging, arsenic contamination, salinity intrusion etc. But the nature of occurrence, season and extent of effect of the hazards are not the same in all places.

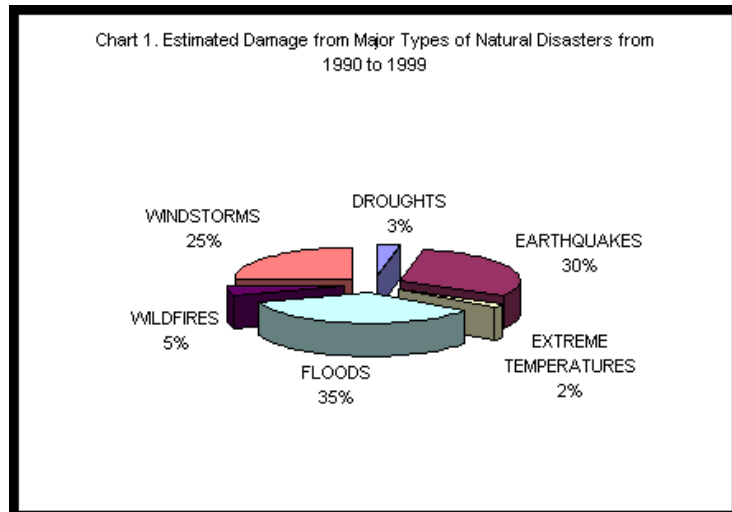


Figure 1 Estimated damage from major types of natural disaster from 1990 to 1999

### Flood

Floods are annual phenomena with the most severe occurring during the months of July and August. Regular river floods affect 20% of the country increasing up to 68% in extreme years. The floods of 1988, 1998, 2004 and 2007 were particularly catastrophic, resulting in large-scale destruction and loss of lives.

Approximately 37%, 43%, 52% and 68% of the country is inundated with floods of return periods of 10, 20, 50 and 100 years respectively.<sup>2</sup>

Four types of flooding occur in Bangladesh<sup>3</sup>

- Flash floods caused by overflowing of hilly rivers of eastern and northern Bangladesh (in April-May and September-November).
- Rain floods caused by drainage congestion and heavy rains.
- Monsoon floods caused by major rivers usually in the monsoon (during June-September).
- Coastal floods caused by storm surges and tied.

<sup>1</sup> <https://www.google.com.bd/search?hl=en&site=imghp&tbn=isch&source=hp&biw=672&bih=657&q=Pictures+of+Flood+occured+in+Bangladesh&oq>.

<sup>2</sup> Master Plan Organisation (MPO), 1986

<sup>3</sup> Prepared by CEGIS for CDMP under the study on "Inventory of Community Risk Reduction Programme" November 200

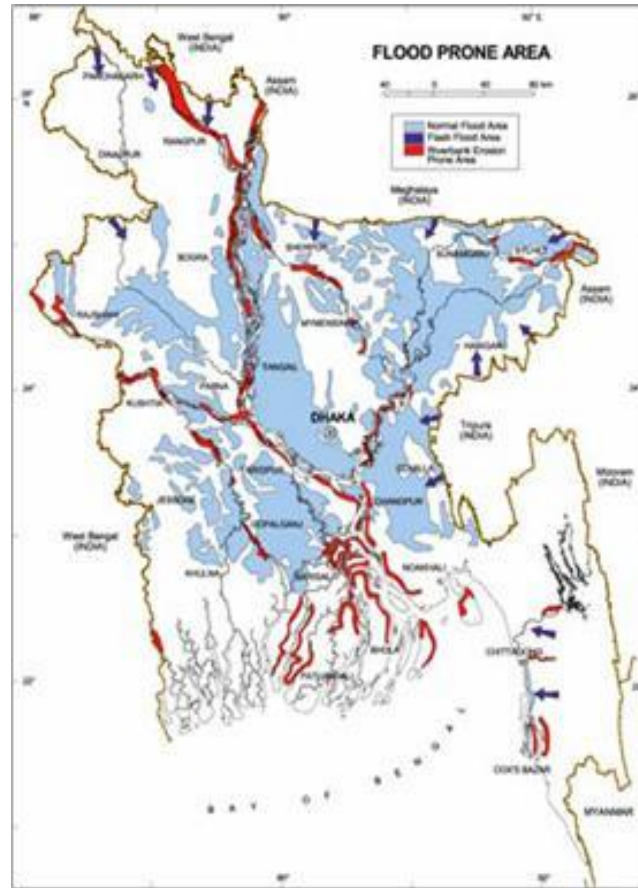


Figure 2 Disaster prone areas in Bangladesh

The 1988 flood affected about two-third area of the country. The 1998 flood alone caused 1,100 deaths, rendered 30 million people homeless, damaged 500,000 homes and caused heavy loss to infrastructure. The 1998 flood lasted for 65 days from July 12 to September 14 and affected about 67% area of the country. This devastating flood had an enormous impact on the national economy, in addition to causing hardships for people, and disrupting livelihood systems in urban and rural areas.

### **Flood Types in Bangladesh**

- Monsoon Flood
- Flash Flood
- Rain flood
- Flood due to Storm Surges and tide

### **Floods differ in**

- Location
- Timing
- Intensity
- duration



Photo 1: Disastrous Flood occurred in Bangladesh, 1988

Flood 2007	
Affected District	39
Affected Upazila	254
Affected Union	1,965
Affected Pourashava	67
Families affected at present	22,64,933
Affected People	1,05,72,145
Death (drowning, snake bite etc)	554
Households (Full)	62,956
Households (Partial)	8,81,922

Table 1 Flood occurred in 2007;

In the year 2000, Bangladesh faced an unusual flood over its usually flood-free south western plain, which also caused loss of life and massive damage to property. In 2004, floods inundated about 38% of the country (WARPO, 2005). About 747 people lost their lives. About 2500 kilometres of embankment were damaged. About 74 primary school buildings were washed away. This flood caused economic loss of about US\$ 2200 Million. In 2007, the flood inundated about 32000 Sq Km including the char areas of 6000 sq km affecting almost 16 million people in around 3 million households. 649 persons lost their lives. Floods continue to be major hazards in Bangladesh. To mitigate the impacts of floods, the government has been developing and implementing various measures to better equip the country to deal with floods.

The Ministry of Water Resources (MoWR) is leading the country on flood mitigation initiatives. Important initiatives include Flood Action Plan, Flood Hydrology Study, Flood Management Model Study, National Water Management Plan, National Water Policy, Flood Early Warning System Study and so on.<sup>4</sup>

### **Cyclones and Storm Surges**

Tropical cyclones from the Bay of Bengal accompanied by storm surges are one of the major disasters in Bangladesh. The country is one of the worst sufferers of all cyclonic casualties in the world. The high number of casualties is due to the fact that cyclones are always associated with storm surges. Storm surge height in excess of 9m is not uncommon in this region.

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<sup>4</sup> Source:MHFP

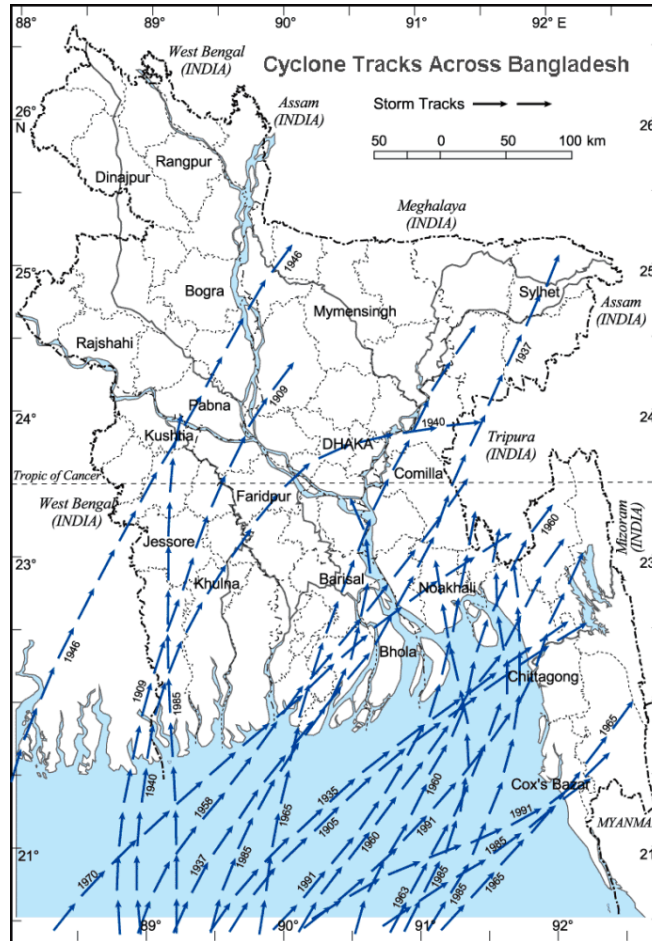


Figure 3 Cyclones Tracking Over Bangladesh During the Twentieth Century

### Major Cyclones that hit the Bangladesh coast

Date and Year		Maximum Wind speed (km/hr)	Storm Surge height (Meter)	Death Toll
11 May	1965	161	3.7-7.6	19,279
15 December	1965	217	2.4-3.6	873
01 October	1966	139	6.0-6.7	850
12 November	1970	224	6.0-10.0	300,000
25 May	1985	154	3.0-4.6	11,069
29 April	1991	225	6.0-7.6	138,882
19 May	1997	232	3.1-4.6	155
15 November	2007	223	6.1-9.1	3363

Table 2 Major cyclone that hit the Bangladesh coast; (Bangladesh Meteorological Department 2007)





Photo 2: This vicious cyclone occurred on November 12, 1970 and caused the deaths of anywhere from 500,000 to 1 million people.

### **The Super Cyclone Sidr-2007**

The cyclone Sidr-2007 erupted from the Bay of Bengal packing winds of 240 kilometres per hour, swept through the south-western coastal areas within 155-miles radius of its eye with heavy rain and storm surges reached up to 15-20 feet high in some places on 15th November'07. According to Bangladesh Metrological Department, the Sidr's eye crossed the Khulna-Barisal coast near the Sunderbans mangrove forests around 9:30 pm, while it crossed over the Baleshwar River in Barguna district at mid night. The coastal districts of Barisal Patuakhali, Borguna, Pirojpur, Jhalkthi, Bhola, Bagerhat, Khulna, Satkhira, Shariatpur, Chittagong and Cox'sbazar and their offshore islands and chars received the major destructions by the Sidr. Out of 12 severely affected districts 4 are the worst affected, these are Bagerhat, Barguna, Perojpur and Patuakhali.



Photo 3: An aerial view of damage to villages and infrastructure following Cyclone Sidr, which swept into southern Bangladesh

Population Density within and outside of a 10m Low Elevation Coastal Zone

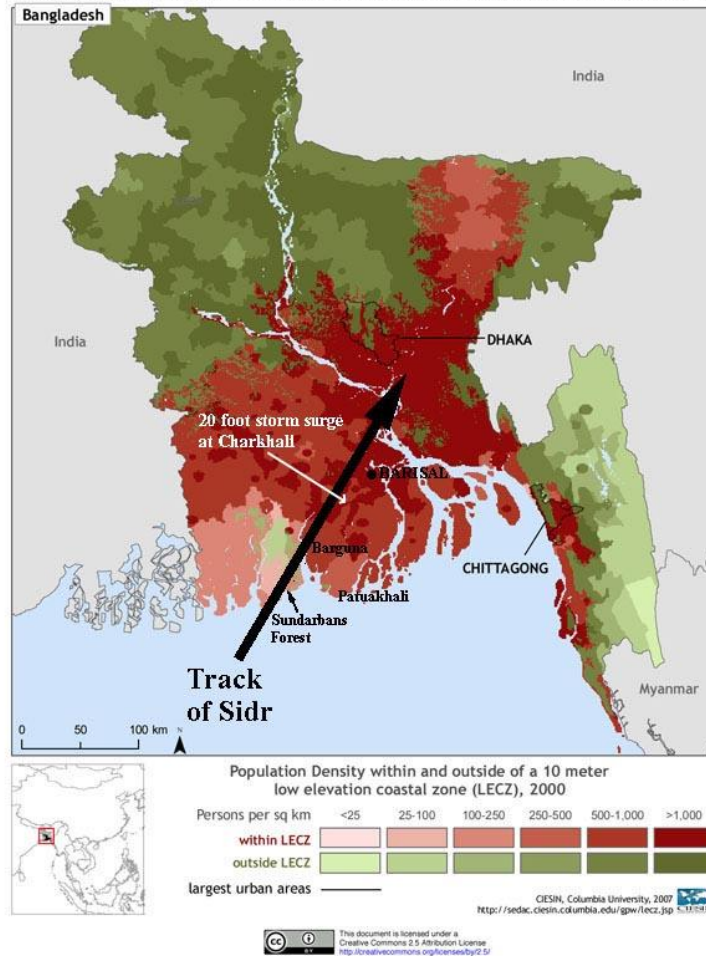


Figure 4 Population density of coastal zone

**Damage and Loss at a Glance by the Sidr:**

Description	Nos./Currency
Affected Districts	30
Most Affected Districts	12
Affected Upazila	200
Affected Union/Municipality	1,810
Affected Family	1,572,695
Affected People	6,770,456
Fully Damaged Crop Field	186,883 hectare
Partially Damaged Crop Field	498,645 hectare
Damaged House	3,63,346
Partially Damaged House	8,15,628
Death Toll	3363
Injured Persons	34,508

Dead Cattle & Poultry	4,62,815
Missing Persons	1,828
Fully Damaged Educational Institution	1,355
Partially Damaged Educational Institution	7,847
Fully Damaged Road	648 km
Partially Damaged Road	88,550 km
Damaged Bridge/Culvert	1,654
Affected Dam	581
Damaged Tree	3,369,336
Ferries:	28 (out of 44) (13 restored)
Electricity:	33kv line- 416 km, 11 kv line 287 km
Affected tube wells –	901 in 3 districts
Affected PSF (Pond sand filter) –	419 nos.
Affected SST(shallow shouted tubewell)/VST (very shouted tubewell) -	55
Forest:	US\$ 5.6 Million
Death of wild life (deer):	24 nos.
Roads and Highways:	US\$2.6 million
BWDB- embankments, sluice gates, riverbank protection structure:	US\$27.0 million

Table 3 Damage and loss by cyclone Sidr;(National Plan for Disaster Management 2008-2015, Disaster Management Bureau, Ministry of Food and Disaster Management )

### Tornadoe

The two transitional periods between southwest and northeast monsoons over the Indian sub-continent are characterized by local severe storms. The transitional periods are usually referred to as pre-monsoon (March-May), and post-monsoon (October- November). It is the pre-monsoon period when most of the abnormal rainfall or drought conditions frequently occur in different parts of Bangladesh. Also there are severe local seasonal storms, popularly known as nor'westers (kalbaishakhi). Severe nor'westers are generally associated with tornadoes. Tornadoes are embedded within a mother thunder cloud, and moves along the direction of the squall of the mother storm. The frequency of devastating nor'westers usually reaches the maximum in April, while a few occur in May, and the minimum in March. Nor'westers and tornadoes are more frequent in the afternoon. Nor'westers may occur in late February due to early withdrawal of winter from Bangladesh, Bihar, West Bengal, Assam, and adjoining areas. The occasional occurrence of nor'westers in early June is due to delay in the onset of the southwest monsoon over the region.



Photo 4: Damages after occurring Tornadoe

Bangladesh has a very short tornado season running from mid-March to mid-May  
Some of the devastating nor'westers and tornadoes

14 April 1969	Demra (Dhaka)
17 April 1973	Manikganj (Dhaka)
10 April 1974	Faridpur
11 April 1974	Bogra
09 May 1976	Narayanganj
01 April 1977	Faridpur
26 April 1989	Saturia (Manikganj)
14 May 1993	Southern Bangladesh
13 May 1996	Tangail
04 May 2003	Brahmanbaria
21 March 2005	Gaibandha

Table 4 Some of the devastating nor'westers and tornadoes

Wind-speeds in nor'westers usually do not exceed 113-130 km/hr (70-80 miles/hr), though often their speeds exceed 162 km/hr (100 miles/hr). When the winds become whirling with funnel shaped clouds having a speed of several hundred kilometers or miles per hour, they are called tornados. Nor'westers bring the much needed premonsoon rain. They can also cause a lot of havoc and destruction. Tornados are suddenly formed and are extremely localized in nature and of brief duration. Thus, it is very difficult to locate them or forecast their occurrence with the techniques available at present. However, high-resolution satellite pictures, suitable radar, and a network of densely spaced meteorological observatories could be useful for the prediction or for issuing warnings of nor'westers and tornados.

### **River Bank Erosion**

It is an ongoing disaster and there is no specific indicator to measure the extent of damage. So the extent of damage caused by river erosion in most cases is based on various reports/information. Needless to say whatever the difference in ascertaining the extent of damage river erosion causes huge loss of property throughout the year. According to "World Disaster Report 2001" published by IFRC every year about 10,00,000 people are affected by river erosion and 9,000 hectare cultivable lands are banished in river. Among these only a few affected people are able to find new shelters while others become homeless for uncertain period. River erosion in Bangladesh is no less dangerous than other sudden and devastating calamities. Losses due to river erosion occur slowly and gradually. Though losses are slow and gradual, they are more destructive and far-reaching than other sudden and devastating calamities. The effects of river erosion are long term. It takes a few decades to make up the losses, which a family has incurred by river erosion. There has been little progress, however, for improving the lot of erosion-affected people due to resource constraint.



Photo 5: River bank erosion

Rivers in Bangladesh are morphologically highly dynamic. The main rivers are braided, and form islands or chars between the braiding channels. These chars, of which many are inhabited, "move with the flow" and are extremely sensitive to changes in the river conditions. Erosion processes are highly unpredictable, and not compensated by accretion. These processes also have dramatic consequences in the lives of people living in those areas. A study concluded in 1991 reported that: out of the 462 administrative units in the country, 100 were subject to some form of riverbank erosion, of which 35 were serious, and affected about 1 million people on a yearly basis. Around 10,000 hectares land is eroded by river per year in Bangladesh.<sup>5</sup>

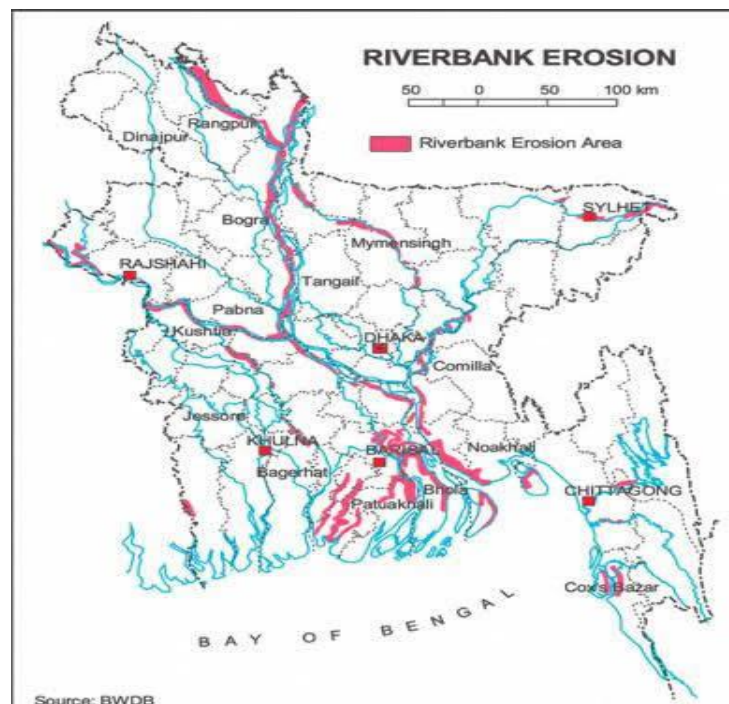


Figure 5 Riverbank erosion prone area in Bangladesh

The erosion prone zones of Bangladesh are Kurigram, Gaibandha, Jamalpur, Bogra, Sirajganj, Tangail, Pabna and Manikganj districts lie in the erosion prone area along Jamuna River. Erosion of total area and settlement is higher along the left bank than that of the right bank. Along Padma River, there are the districts of Rajbari, Faridpur, Manikganj, Dhaka, Munshiganj, Shariatpur and

<sup>5</sup> National Water Management Plan (NWMP), 2001

Chandpur. A recent study of CEGIS (2005) shows that bank erosion along Padma River during 1973 – 2004 was 29,390 hectares and along Jamuna River during 1973 – 2004, it was 87,790 hectares. As relevant to this study, loss of land, settlements, roads and embankments due to erosion in 2004 in Sirajganj and Faridpur districts.<sup>6</sup>

**Erosion of agricultural land, roads, embankments and settlements along the banks of the Jamuna and Padma in 2004 in Sirajganj and Faridpur districts**

District	Upazila	Total Land (ha)	Eroded Infrastructures				
			Settlement (ha)	District Road (m)	Upazila Road (m)	Rural Road (m)	Embankment (m)
Sirajganj	Kazipur	177	50		176	84	1617
	Sirajganj Sadar	170	13	1		164	2107
	Belkuchi	0	0				
	Chauhali	207	45		395		
	Shahjadpur	148	31	159			
	Total	702	139	160	571	248	3724
Faridpur	Faridpur Sadar	200	57		1175	370	
	Char Bhadrasan	78	17	320			
	Sadarpur	3	1				
	Total	281	75	320	1175	370	

Table 5 Centre for Environmental and Geographical Information Services, [CEGIS], 2005

**Earthquake**

Bangladesh and the northeastern Indian states have long been one of the seismically active regions of the world, and have experienced numerous large earthquakes during the past 200 years. The catastrophic earthquakes of 1762 and 1782 are believed to have been partially responsible for the diversion of the main flow of the Old Brahmaputra river from the west to present Jamuna river and main flow of the Arial Khan river to the present Padma channel. Since 1860 over 20 shallow and intermediate earthquake epicenters have been recorded in Bangladesh and the surrounding areas.

Lots of seismo-tectonic studies have been undertaken on the area comprising the IndoBurman ranges and their western extension and in the northern India. A complete list of reference of this is provided in Haque, (1990), using data from various sources. A seismicity map of Bangladesh and its adjoining areas has also been prepared by Bangladesh Meteorological Department (BMD) and Geological Survey of Bangladesh (GSB)

<sup>6</sup> National Water Management Plan (NWMP), 2001

### List of Major Earthquakes Affecting Bangladesh

Date	Name of Earthquake	Magnitude (Richter)	Epicentral Distance from Dhaka (km)	Epicentral Distance from Sylhet City (km)	Epicentral Distance from Chittagong (km)
10 January, 1869	Cachar Earthquake	7.5	250	70	280
14 July, 1885	Bengal Earthquake	7.0	170	220	350
12 June, 1897	Great Indian Earthquake	8.7	230	80	340
8 July, 1918	Srimongal Earthquake	7.7	150	60	200
2 July, 1930	Dhubri Earthquake	7.1	250	275	415
15 January, 1934	Bihar-Nepal Earthquake	8.3	510	530	580
15 August, 1950	Assam Earthquake	8.5	780	580	540

Table 6 BNBC 1993 as reproduced in Choudhury, 2005

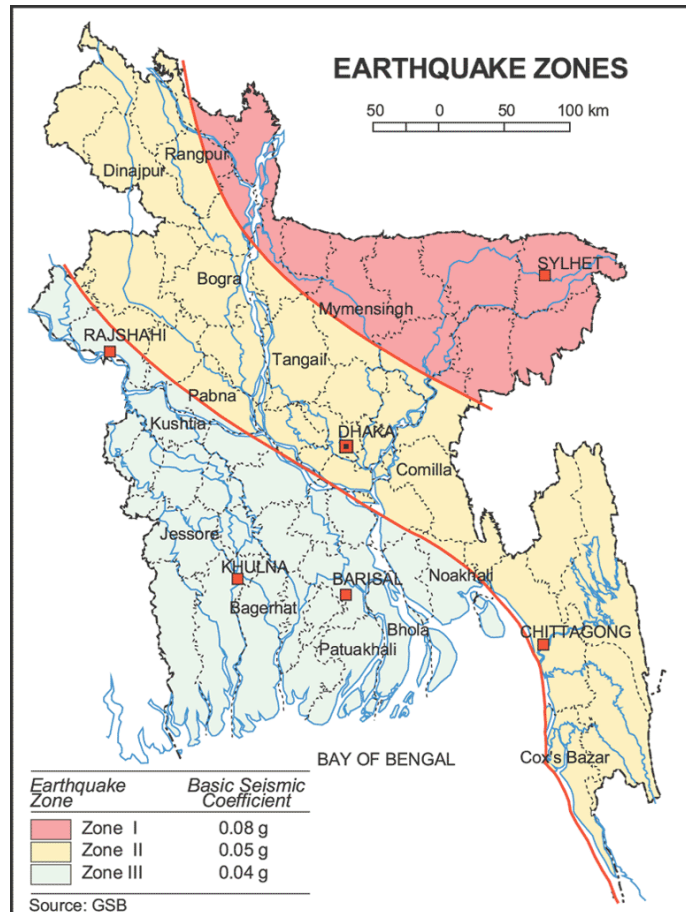


Figure 6 Earthquake zones

The record of approximately 150 years shows that Bangladesh and the surrounding regions experienced seven major earthquakes (with  $M_b = 7$ ). In the recent past, a number of tremors of moderate to severe intensity had already taken place in and around Bangladesh. The Sylhet Earthquake ( $M_b = 5.6$ ) of May 8, 1997, the Bandarban Earthquake ( $M_b = 6.0$ ) of November 21, 1997, the Moheshkhali Earthquake ( $M_b = 5.1$ ) of July 22, 1999, and the Barkal (Rangamati) Earthquake ( $M_b = 5.5$ ) of July 27, 2003 may be cited as examples.

#### World's deadliest recent earthquakes

- Iran, 2003: More than 26,000 people killed in 6.6 earthquake near the city of Bam.
- Indonesia, 2004: Devastating 9.1 earthquake and ensuing tsunami off the Sumatran province of Aceh kills more than 230,000 people in a dozen countries.
- Pakistani-administered Kashmir, 2005: 7.6 earthquake near Muzafferabad kills about 100,000 people.
- China, 2008: Nearly 90,000 killed in 7.9 earthquake in eastern Sichuan province.
- Haiti, 2010: More than 220,000 people killed in 7.0 magnitude earthquake.

#### Nepal Earthquake 2015

The 2015 Nepal earthquake, is also known as the Gorkha earthquake which killed more than 7,000 people and injured more than twice as many. It was the most powerful disaster to strike



Nepal since the 1934 Nepal-Bihar earthquake. Some casualties were also reported in the adjoining areas of India, China, and Bangladesh



Photo 6: Kathmandu's landmark Dharahara tower before and after the earthquake

The earthquake triggered an avalanche on Mount Everest, killing at least 19, making it the deadliest day on the mountain in history. It triggered another huge avalanche in Langtang valley, where 250 were reported missing.

Hundreds of thousands of people were made homeless with entire villages flattened, across many districts of the country. Centuries-old buildings were destroyed at UNESCO World Heritage sites in the Kathmandu Valley, including some at the Kathmandu Durbar Square, the Patan Durbar Square and the Bhaktapur Durbar Square. Geophysicists and other experts had warned for decades that Nepal was vulnerable to a deadly earthquake, particularly because of its geology, urbanization, and architecture.



Photo 7: Rescuers are searching through rubble for survivors

Continued aftershocks occurred throughout Nepal within 15-20 minute intervals. The country also had a continued risk of landslides.

### **Drought**

Bangladesh faces unpredictable drought hazard in the dry monsoon due to inadequate and uneven rainfall. It varies from place to place, however, North-western region suffers most from the drought. As much as 17% of the Aman crops, the main paddy crops in the wet season may be lost in a typical year due to drought. Though this is an annual phenomenon, the last severe drought faced by Bangladesh was in 1994. In view of persistent food shortage, this is a catastrophe. In this paper, the role of surface water irrigation projects in drought management in

Bangladesh has been discussed. Drought affects not only the seasonal crops but also the fruit-bearing trees, forestry and the environment as a whole. Moreover, the crop environment during the monsoon (Kharif-II) season is not favourable for achieving full potential yields because of uneven distribution of rainfall, flooding etc. To combat the drought, it is essential for Bangladesh to utilize its water resources, both surface and groundwater. However, Bangladesh has increasingly used her ground water resources to such an extent that the depletion of ground water resources as well as arsenic contamination is occurring at an alarming rate in the ground water reservoirs due to over and unplanned withdrawal. The scope of increasing the irrigation areas by LLP is limited.

In these circumstances, there is no option but to use surface water to meet the water deficit created by droughts in the Kharif-II season and hence, surface water utilization projects such as barrages across the rivers, installation of pumping plants for lifting water from the rivers are essential.



Photo 8: Drought

Drought is an abnormal condition where there is a lack of sufficient water to meet the normal needs of agriculture, livestock, industry, or for human use. While generally associated with semi-arid or desert climates, droughts can also occur in areas that normally enjoy adequate rainfall, and moisture levels (ADB, 1991). It is the result of insufficient or no rainfall for an extended period, and causes a considerable hydrological (water) imbalance. The ensuing water shortage leads to stream flow reduction, depletion of ground water and soil moisture, and hence, crop damage. In drought conditions, evaporation and transpiration exceed normal levels. If it continues for a prolonged period, a serious threat is posed to agricultural production. In the agricultural context drought affects rice production the most. Based on drought severity, crop loss ranges between 20-60% for T. Aman and other rice varieties (Iqbal, 2000). It is one of the most insidious causes of human misery. Basically, there are three types of droughts in Bangladesh:

- Permanent drought characterizes regions with the driest climate, having sparse vegetation that is adapted to aridity. Agriculture cannot be practiced without irrigation.
- Seasonal drought occurs due to abnormal rainfall shortage in places where there are well-defined annual rainy and dry seasons.
- Unpredictable drought involves an abnormal rainfall failure, mostly in localized areas of humid and sub-humid climates.

## Climate induced Droughts in Bangladesh

- Coverage and intensity of drought have increased
  - Damage of soil, productivity of land and fertility, loss of agriculture and crops, food insecurity and nutrition
  - Ecology and NRs, green coverage and forest, livestock, water and fisheries
  - Water scarcity, heat stress and damages to human health
- Drought condition will be aggravated in the warmer climate

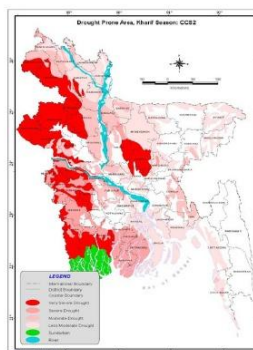


Figure 7 Droughts in Bangladesh

Bangladesh is at higher risk from droughts. Between 1949 and 1991, droughts occurred in Bangladesh 24 times. Very severe droughts hit the country in 1951, 1957, 1958, 1961, 1972, 1975, 1979, 1981, 1982, 1984 and 1989. Past droughts have typically affected about 47% area of the country and 53% of the population.<sup>7</sup>

Drought conditions due to deficiency in rainfall affect different parts of Bangladesh mostly during the pre-monsoon and post-monsoon periods. One study has shown (Figure 9) that from 1949 to 1979, drought conditions had never affected the entire country and total population in any drought year. The drought of 1979 was one of the severest in recent times. The percentage of drought-affected areas was 31.63 percent in 1951, 46.54 percent in 1957, 37.47 percent in 1958, 22.39 percent in 1961, 18.42 percent in 1966, 42.48 percent in 1972, and 42.04 percent in 1979.<sup>8</sup> During 1981 and 1982, drought affected the production of the monsoon crop only.

### Climate Change Impact

Global warming effects have already started showing up with increasing intensity, namely change in species habitats and habits, acidification of oceans, loss of wetlands and bleaching of coral reefs. Rapid and continued loss of biodiversity is taking place at an alarming rate, and the ecological footprint, which measures the extent of human demand on Earth's ecosystems, has tripled since 1961, showing that the planet's resources are being used at a rate 25% higher than their ability to regenerate. These disturbing effects will worsen as climate change accelerates and are likely to deprive hundreds of millions of people from access to water within just a couple of decades, while tens of millions will be displaced by floods from rising sea levels and tropical cyclones as well as wildfires will intensify; Food production may initially improve in some northern regions but starvation could affect hundreds of millions in near future.

<sup>7</sup> Water Resources Planning Organization (WARPO), 2000

<sup>8</sup> Chowdhury and Hussain 1981 as reported in SOE 2001

### **Fresh water resources and their management**

Droughts will spread to cover larger areas and rain will become more concentrated, implying more floods.

### **Ecosystem**

The combination of climate change and associated disturbances like flooding, drought, wildfire, infestation and ocean acidification, in addition to other contributors to climate change such as land use change, pollution and overexploitation of resources, will exceed the resilience of many ecosystems. Increasing ocean acidification due to higher CO<sub>2</sub> atmospheric concentrations will harm corals, shelled organisms and dependant species.

### **Food production**

Although crops may increase in high and mid-latitudes, once local mean temperatures increase more than 1-3°C, they will decrease globally. Increased risk of hunger in lower latitudes, especially seasonally dry and tropical regions, where crop productivity may decrease for even small changes in local average temperature of 1-2°C. Adaptations through cultivation cycles may maintain cereal yields if warming remains modest. Regional adverse effects are predicted for aquaculture and fisheries.

### **Coastal systems and low-lying areas**

Coasts will increasingly suffer from erosion and rising sea levels, exacerbated by human-induced pressures. Corals and coastal wetlands may be seriously affected by even small increases in sea surface temperatures and rising sea levels, respectively. Many people may be affected by continuous floods of coastal areas due to sea level rise may increase significantly, especially in the densely-populated and low-lying areas with low adaptive capacity and already prone to tropical storms and local coastal subsidence.

### **Arsenic Contamination**

At present, arsenic contamination is considered to be a dangerous environmental threat and a serious health risk. It is identified as a public health emergency in Bangladesh. There is no specific treatment for chronic arsenicosis other than ceasing further intake of arsenic contaminated water and raising awareness of the population about the problem.

The value (recommended limit) for arsenic in drinking water as per the guideline of the World Health Organization (WHO) is 10 mg/L while the national standard in most countries, including Bangladesh, is 50 mg/L. With varying levels of contamination from region to region, groundwater in 61 out of the 64 districts in Bangladesh is contaminated with arsenic. According to a study conducted by the British Geological Survey and DPHE, Bangladesh, arsenic concentrations in the country range from less than 0.25 mg/L to more than 1600 mg/L. This study report estimates that out of the Bangladesh population of 125.5 million, up to 57 million drinks water that has an arsenic concentration greater than the WHO guideline value and up to 35 million drinks water that has concentrations in excess of the Bangladesh standard. The waters in the southwest and southeast parts of Bangladesh are highly contaminated with arsenic (Figure 10). Important government initiatives to mitigate risk to arsenic contamination include development of the National Policy for Arsenic Mitigation 2003 and the Implementation Plan for Arsenic Mitigation in Bangladesh.

## Salinity Intrusion

Saline water intrusion is mostly seasonal in Bangladesh; in winter months the saline front begins to penetrate inland, and the affected areas rise sharply from 10 percent in the monsoon to over 40 percent in the dry season. Coastal districts such as Satkhira, Khulna, Bagerhat, Barguna, Patuakhali, Barisal are the victims of salinity intrusion. Agricultural production, fisheries, livestock, and mangrove forests are affected by higher salinity in the dry season. It is observed that dry flow trend is being declined as a result of which sea flow (saline water) is travelling far inside the country resulting in contamination both in surface and ground water.

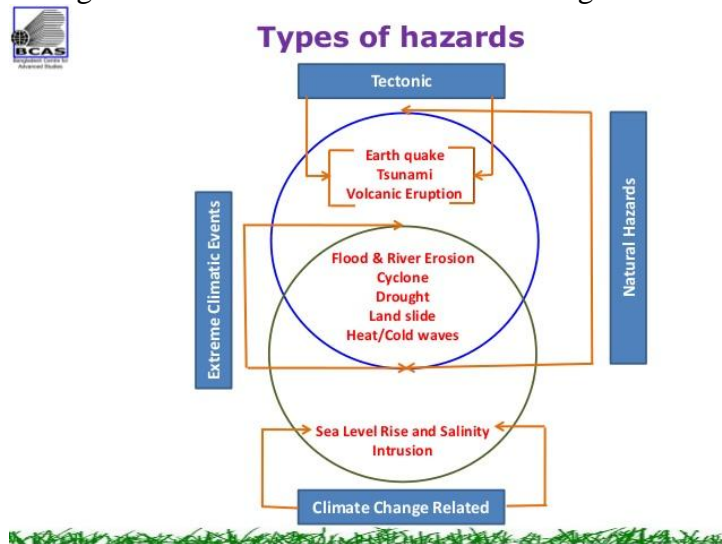


Figure 8 Types of hazards

Salinity data from Land Reclamation Programme (LRP) and Meghna Estuary Study (MES) indicate an enormous seasonal effect due to the influence of huge fresh water discharge from the Lower Meghna River on the horizontal distribution of salinity in the estuary. This distribution is strongly influenced by the fresh water flow in the Lower Meghna River. Figures 11 and 12 present the movement of the 1 ppt salinity line during monsoon and dry season respectively. High salinity both in monsoon and dry season in the southwest corner and along the Pussur-Sibsa system of the area is associated with the decreasing upstream freshwater flow as well as silting of major channels.<sup>9</sup>

## Tsunami

Underwater strong earthquakes, volcanic eruption or other submarine landslide usually causes tsunamis. When earthquake occur offshore at subduction zones (places where a tectonic plate that carries an ocean is gradually slipping under a continental plate). Some tsunamis can be very large. In coastal areas their height can be as great as 30 feet or more (100 feet in extreme cases), and they can move inland several hundred feet.

A tsunami consists of a series of waves. Often the first wave may not be the largest. The danger from a tsunami can last for several hours after the arrival of the first wave. Tsunamis can move faster than a person can run. Tsunamis can occur at any time, day or night.

<sup>9</sup> Water Resources Planning Organization, (WARPO), 2005.

## Tsunami impact

Although infrequent, tsunamis are among the most terrifying and complex physical phenomena, and have been responsible for great loss of life and extensive destruction to property. Because of their destructiveness, tsunamis have important impacts on the human, social, and economic sectors of societies. The last major Pacific-wide tsunami occurred in 1960. Many other local and regional destructive tsunamis have occurred with more localized effects.

Before the Asia Tsunami 2004, a few Bangladeshis ever thought that Bangladesh was vulnerable to tsunami hazards. However, the 2004 Asia Tsunami raised the question why Bangladesh was not hit by the Tsunami. Bangladeshi scientists put together the following reasons:

- Long distance from the Epicenter;
- Long Continental Shelf (about 200 km) at the front of Ganges- Brahmaputra active Delta System;
- Thick sedimentation in Bengal fan;
- High density of sea-water in Bay of Bengal around / along the coast (suspended load);
- Anti-clockwise oceanic current at Bay of Bengal (winter time).

Considering the state of tsunami vulnerability and potential seismic sources, Geological Survey of Bangladesh has divided the Bangladesh coastal belt into three zones:

- **Tsunami Vulnerable Zone- I (Chittagong-Teknaf coastline):** Most vulnerable. The intra-deltaic coastline is very close to the tectonic interface of Indian and Burmese plates. The active Andaman-Nicobar fault system is often capable of generating tsunami waves.
- **Tsunami Vulnerable Zone- II (Sundarban-Barisal coastline):** Moderately vulnerable. This old deltaic belt is extremely vulnerable to local tsunamis due to presence of Swatch of No Ground.
- **Tsunami Vulnerable Zone- III (Barisal-Sandwip estuarine coastline):** Low vulnerability. The estuarine coastal belt considered to be less vulnerable due to presence of numerous islets and shoals in the upper regime of the continental shelf.

Bangladesh needs detailed study to scientifically assess the Tsunami vulnerability. Bangladesh also needs to develop a Tsunami early warning system and mass awareness of Tsunami threat at the coastal areas.

## Fire

Fire hazards occur frequently in Bangladesh. Fire causes huge loss of lives and properties every year. Although termed as ‘fire accident’, most fire events are far from being accidental. Indeed, most fires are preventable. Industrial units, particularly garments industry, produce deadliest of the fires. For example, a fire broke out on 6 January 2005 on the fourth-floor of a building housing a factory in Narayanganj. It took fire-fighters four hours to extinguish the blaze. Dozens of workers were injured as they desperately tried to escape down the narrow smoke-engulfed stairs. About 23 people died because they were unable to escape because many of the exits were blocked, and the fire extinguishers were not working.



Photo 9: Twenty-nine Bangladeshi workers who lost their lives in the sportswear factory fire

Tragically, factory fires are all too common in Bangladesh. Whenever a fire occurs, the authorities are usually asked to investigate the fire, pay exemplary compensation to the survivors as well as to the families of those that died, take immediate steps to improve health and safety in the industry, as well as take legal action against those found responsible for criminal negligence in allowing the existence of such unsafe conditions. Fire incidents in the country are increasing at an alarming rate. In 2004 alone, a total of 7,140 fire incident occurred which caused damage to property worth more than Tk. 200 crore.

### **Infrastructure Collapse**

A nine-storied building housing a garments factory at Palashbari, Savar, Dhaka collapsed at around 1 am on 11 April 2005. It was a total structural failure. Local administration, especially the Fire Brigade and Bangladesh Army quickly rushed to the spot just after the collapse. NGOs, construction companies and other organizations joined later. 40-50 rescued alive during that night. Rescue Operations completed on 19.04.05. Scores of people died.

Lessons learned from the operation includes the following:

- site was inaccessible to the equipments – mobilized almost all the required equipments but sitting idle due to their inaccessibility to the site;
- unfamiliarity with the understanding and practical collapse condition;
- Lack of awareness of mass people on the stages of rescue operations,
- Insufficient /lack of appropriate modern equipments to rescue victims alive.

### **Rana Plaza**

An eight-story commercial building named Rana Plaza, collapsed on 24 April 2013. The search for the dead ended on 13 May 2013 with a death toll of 1,129. Approximately 2,515 injured people were rescued from the building alive. It is considered the deadliest garment-factory accident in history, as well as the deadliest accidental structural failure in modern human history.



Photo 10: incident of Rana Plaza accident

Incidents of infrastructure collapse are on the rise. Prevention and preparedness programmes are absolute necessity of the time.

## **Landslide**

Large and small landslides occur almost every year in nearly all regions of the world. In the past, landslide was not considered a major hazard in Bangladesh. However, recently landslide has emerged as a major hazard, particularly after the Chittagong Landslide 2007. Due to heavy rainfall during 10-11 June 2007, landslide and collapsed walls caused widespread damages in six areas of Chittagong city and in different Upazilas of the district. 50 MM rainfall was recorded from 12:00 AM 10 June 2007 to 6:00 AM June 11 2007, and 315 MM rainfall was recorded from 6:00am to 2:00 PM on 11 June 2007. More than 120 people have been reported dead due to Chittagong Landslide.



Photo 11: Picture of landslide

Landslide is a complex-disaster phenomenon that can be caused by earthquakes, volcanic eruptions, heavy rainfall (typhoons, hurricanes), sustained rainfall, heavy snowmelt, unregulated anthropogenic developments, mining, and others. In Bangladesh, landslide is mostly triggered by heavy rainfall. However, underlying causes of landslide include deforestation, hill cutting, unregulated development work, etc. Moreover, poverty and landlessness force poor people to live in the risky hill-slopes.



**Chapter 3**  
**Disaster Management Policies for Women:**  
**Taken by Government of Bangladesh**

Bangladesh's geographic location makes it highly prone to frequent natural disasters. Bangladesh is subject to disasters such as cyclones, tidal surges, floods, earthquakes, river erosion, tornado, fire, droughts etc. In addition to these, Bangladesh is also subject to man-made disasters such as building collapse and fire. Marginalized people of the country are frequently affected by all these kinds of natural and man-made disasters. Among these people, the majority is living below the poverty level and a large number of them are women.

In order to become successful of the long term vision of Bangladesh Government for disaster management, beneficiaries are selected on the basis of gender in different projects. Gender equity is should be promoted through some programmes and that should give women priority. Women are considered as the most vulnerable to disaster that's why they are should be given priority in disaster management policies.

There are several ministries, departments, bureaus and programmes of Bangladesh government working on generating and implementing of disaster management policies. The name and web addresses of these organizations are given below-

Name	Web Address
Ministry of Disaster Management and Relief (MoDMR), Bangladesh - gov	<a href="http://www.dmr.gov.bd/">www.dmr.gov.bd/</a>
Ministry of Environment and Forest (MOEF), Bangladesh – gov	<a href="http://www.moef.gov.bd/">www.moef.gov.bd/</a>
Ministry of Food and Disaster Management (MOFDM), Bangladesh – gov	<a href="http://www.mofdm.gov.bd">www.mofdm.gov.bd</a>
Disaster Management Bureau	<a href="http://www.ddm.gov.bd/">http://www.ddm.gov.bd/</a>
Department of Disaster Management (DDM), Bangladesh – gov	<a href="http://www.ddm.gov.bd">http://www.ddm.gov.bd</a>
Bangladesh Forest Department (Ministry of Environment and Forest)	<a href="http://www.bforest.gov.bd/">http://www.bforest.gov.bd/</a>
Comprehensive Disaster Management Programme (CDMP), Bangladesh – gov	<a href="http://www.cdmp.org.bd">www.cdmp.org.bd</a>

A Perspective Plan (2010-2021) and two five year plans, 6th (2011-2015) and 7th (2016- 2020), were to implement Vision 2021. In this study it was intended to see polices taken by these organizations and principally observe the position of women.

### **1. Ministry of Disaster Management and Relief**

This ministry commenced its journey as a division of Ministry of Food and Disaster Management (MOFDM) in 2009-2010 and in 2012-2013 it became a full ministry of Bangladesh government. It is a foremost body of government of implementing different policies of disaster management. Ministry of Disaster Management and Relief availed the budget allocation for Fiscal Year 2013-2014 was 6524, 04, 86 thousand taka and now for running Fiscal Year 2014-2015 it is 7286, 88, 18 thousand taka.

#### **Vision**

The vision of the Ministry of Disaster Management Relief (MoDMR) of the People's Republic of Bangladesh is to reduce the risk of people, especially the poor and the disadvantaged, from the

effects of natural, environmental and human induced hazards to manageable and acceptable humanitarian level and to have in place an efficient emergency response management system.

### **Mission**

The vision of the Ministry of Disaster Management Relief (MoDMR) ) has been given the mandate to drive national risk reduction reform programmes. Its mission relative to this agenda is to achieve a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture, and to promote food security as an important factor in ensuring the resilience of communities to hazards.

### **Functions and Activities:**

Formulation, review and execution of legislation, policies, plans, procedures, standing orders and guidelines relating to disaster management is the main function of Ministry of Disaster Management and Relief. This ministry also implements plans and policies concerning to distribution of emergency humanitarian assistance and as well as maintains a database of the recipients of these assistances. This organization also approves, administers and monitors different safety net programmes such as Test Relief (TR), Food for Work (FFW), Vulnerable Group Feeding (VGF) and other humanitarian assistance programme. It contributes a lot for Employment generation for ultra-poor.

In 2009, the Disaster Management and Relief Division (DMRD) was formed as a separate division. The Ministry of Disaster Management and Relief (MoDMR) was subsequently set up. The Ministry has been playing a vital role in disaster risk reduction and preparedness and in overall disaster management.

MoDMR has been given the mandate to drive national risk reduction reform programmes. Its mission relative to this agenda is: “To achieve a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture, and to promote food security as an important factor in ensuring the resilience of communities to hazards”

### **The Ministry is Mandated to Carry out the Following Responsibilities:**

- Formulation, review and execution of legislation, policies, plans, procedures, standing orders and guidelines in relation to overall disaster risk reduction and emergency response management including relief rehabilitation and safety net programmes.
- Relief and disaster risk reduction programmes, planning, and monitoring.
- Coordination of all activities in relation to disaster management and relief incorporating disaster risk reduction and emergency response management.
- Mainstreaming Disaster Risk Reduction across line ministries and agencies at all levels, local governments, NGO, CBOs, civil society and all other stakeholders.
- Implementation of the disaster related programmes/projects undertaken due to adverse impacts of climate change.
- Approval, administration and monitoring of safety net programmes such as Test Relief (TR), Vulnerable Group Feeding (VGF), Vulnerable Group Development (VGD), Food For Works programme, Institutional Feeding programme, Rural Infrastructure Maintenance programme, Risk Reduction Programme, Road Maintenance Programme, House Building Grants etc.
- Construction and Maintenance of small bridges/culverts, multi-purpose disaster shelters, cyclone shelters, flood shelters with a view to eliminating/ reducing disaster risks.

- Liaison with regional and international organizations and matters related to treaties and agreements with other countries and world bodies relating to subjects allotted to this Ministry.
- Assessment of disaster situation and recommendation to declare state of disaster emergency and issuance of evacuation notices and monitor disaster early warning dissemination.
- Establish, strengthen and improve the national disaster response mechanism.
- Implementation of the refugee related programmes.
- Disaster Management Framework and Key Policies/Programmes

### **Special Programme for Women Empowerment**

Employment of at least one third poorest women in the Employment Generation of Ultra-poor programme and providing continuous support to the distressed women through some social safety net programmes like Test Relief, Food for Work, and Vulnerable Group Feeding are being implemented with a focus on women.

### **Strategic Objectives of the Ministry and Their Relevance with Women’s Advancement and Rights**

The strategic objectives to reduce the risks of disaster especially for the poor and the vulnerable to a manageable level by way of strengthening the overall capacity of disaster management and their relevance to woman’s advancements and rights are as follows:

#### *Institutionalizing Disaster Management System, Creation of Professionalism and Increasing the Capability*

In disaster prone areas, the capability of women to face natural disasters has been enhanced due to their involvement in disaster awareness activities and livelihood training. As a result, poverty and disaster risks are reduced.

#### *Construction of Infrastructure to Reduce Disaster Risks*

An effective transport system plays a supportive role in rescuing people especially women and children during disasters. The lives of women and children are also saved at shelters provided during floods and cyclones. The overall benefits of communication and transport accelerate women’s advancement.

#### *Reducing the Sufferings and Disaster Risks for Vulnerable People*

At least 30% of the beneficiaries are women under targeted and women friendly programmes. As the poor and destitute women are getting preferential employment, their income is increasing and their access to food is improving. Women, children and handicapped people are taken to the safe shelters on a priority basis at the beginning of any serious disaster and they are given food and medicines. As a result, their social security and capacity to face disasters are being strengthened.

### **Roles and Responsibilities of the Ministry for Women’s Advancement and Rights**

One of the major functions of the Ministry of Disaster Management and Relief is disaster risk reduction, response to the emergency, the formulation of laws relating to disaster management, the implementation of policies and action plans. It has formulated ‘*the National Plan for Disaster Management 2008-2015*’ in 2008 and “*Disaster Management Act, 2012*” with an

objective for overall development in disaster management where women related issues have been identified.

This division has extended the following priority activities to create opportunities for women:

Social Safety Net Program

The safety net programs like Employment Generation Programme, Food for Work (food grains & cash), T.R. Programme and V.G.F. Programme play important roles to increase availability of food to the extreme poor during slumps and disaster periods. Most of the beneficiaries of these programmes for are poor women. Besides this, at least 30 percent of total number of employment is allocated to the extremely poor women under the “Employment Generation for Ultra-poor Program”.

Construction and Maintenance of Flood and Cyclone Centers

During disasters citizens especially women and children take shelter at Flood and Cyclone Centers which are children and women friendly.

Disaster Risk Reduction Program in Disaster Prone Areas

Women are being involved in awareness building activities concerning disasters which improve women’s skills. To reduce the loss both to lives and properties; community empowerment, capacity building, response management activities are also being undertaken. Women and children are taken to the safe shelter homes when there are “disaster warnings”. Medicines are being distributed to them. As a result, disaster risk of women and children is being reduced and which enhances their overall social and economic power.

Construction of Physical Infrastructure

Better communication and transportation systems especially in rural and coastal regions are conducive for women’s development, as they help to reduce the impact of disasters and promote economic development. Uninterrupted communications systems are essential to rescue people specially women, children and elderly persons during disasters. Women benefit directly and indirectly through the construction of Flood and Cyclone Shelters, Cyclone tolerant houses, village connecting roads (pacca), small culverts/bridges and other physical infrastructure in disaster prone areas.

Procurement and Maintenance of Searching and Rescuing Vehicles and Equipment

This Ministry procures different search and rescue vehicles/equipments to combat disasters which play important roles to save lives and property during disasters.

**Priority Spending Areas for Women’s Advancement**

Priority Spending Area/Programs	Impact on Women’s Advancement (Direct and Indirect)
1. Expansion of social safety net programmes	<ul style="list-style-type: none"> <li>The “Employment Generation for ultra-poor Programme” of this ministry is a focused women friendly programme. At least 33% beneficiaries of this programme are destitute and poor women. They are empowered and obtain additional income</li> </ul>

	<p>through this program. In FY 2013-14 fiscal year 2,71,337 women(36.2% of total beneficiaries)benefitted from this program.</p> <ul style="list-style-type: none"> <li>• In the post disaster period, women are given preference as per policy to select the beneficiaries for improved access to receive food aid. Women are provided with food grain, cash money, biscuits etc. As a result they get better nutrition.</li> </ul>
2. Construction of small bridges, culverts and Flood and Cyclone Shelters	<ul style="list-style-type: none"> <li>• People, especially the women and children are benefitted directly or indirectly though cyclone shelters, pacca connecting roads, small culverts and other physical structure constructed in the disaster prone areas. Ultimately women being the beneficiaries become developed. Moreover, many women get employed in these construction works. As for example,construction of 1358bridges/culverts on the rural road and 135bridges/culverts in the Chittagong Hill Tract regions created employment for 3.36 lac women.</li> <li>• Similarly, 1 lac women will be employed in 100 cyclone shelter construction activities. Under different programs of this Division millions of women will be benefitted in next five years and thus these programs will play a vital role in poverty eradication through women empowerment.</li> </ul>
3. Procurement and maintenance of search and rescue vehicles and equipment	<ul style="list-style-type: none"> <li>• Procurement of search and rescue vehicles and equipment that play important roles in saving lives and properties during disasters will benefit people, especially women and children.</li> </ul>
4. Risk reduction training, research and awareness programmes	<ul style="list-style-type: none"> <li>• Since women are considered to be the most vulnerable in any disaster, they will benefit from the risk reduction programmes and training. Safe drinking water and sanitation have been arranged for the women through the CDMP (Phase-2) project. Disaster affected women have been involved in non-agricultural sector for livelihood. A total of 61,654 women have been trained in disaster management from the FY 2011-12 to 2014-15. Out of this, 10,000 women CPP Volunteers will be trained. 8,000</li> </ul>

	<p>women volunteers will be trained in Fire Service and Civil Defence. 9,540 woman members of Disaster Management Committee at the district, upaziila and union levels will be trained. 8,200 school students and teachers will be trained. Moreover, 25,000 women will be trained as committee members.</p> <ul style="list-style-type: none"> <li>• Under “NabaJibon” project of this division 2,27,422 women will be trained on disaster management and 26,061 women will be trained under “Prosar” project. Thus women will be aware as well as empowered and they will be responsive to disaster.</li> </ul>
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Table 1 Priority Spending Areas for Women’s Advancement(www.dmr.gov.bd/)

### Women’s Share in Ministry’s Total Expenditure

Description	Budget 2013-14			Revised 2012-13			Budget 2012-13		
	Budget	Women Share		Revised	Women Share		Budget	Women Share	
		Women	%		Women	%		Women	%
Total National Budget	2,50,497	66,739	26.64	2,16,220	59,756	27.64	2,22,491	61,567	27.67
Ministry Budget	7,287	4,926	67.6	6,360	4,299	67.59	6,524	4,554	69.8
Development	2,425	1,236	50.97	1,710	740	43.27	1,912	1,029	53.82
Non-Development	4,861	3,690	75.91	4,650	3,559	76.54	4,612	3,525	76.43

Table 2 Women’s Share in Ministry’s Total Expenditure (RCGP database)

### Success in Promoting Women’s Advancement

- Under the Comprehensive Disaster Management Programme (C.D.M.P.) phase-ii project, 203 households have been rehabilitated by constructing disaster resilient houses in two disaster resilient villages in Sutarkhali union under Dacope upazilla in Khulna District. As a result of this, the women of these families, who had been staying on embankments after Cyclone Aila have been given the opportunity to live a decent and secure life. Moreover 260 households in the urban areas have also been rehabilitated; all of these efforts have enhanced their development and rights.
- Sanitary latrines have been installed under C.D.M.P. and 203 k.m. of water pipelines have been installed with C.D.M.P. and G.I.Z. support in the coastal belt of the country.

These have helped the women in the areas by reducing their workload and can now spend more time engaging in productive activities.

- 2,000 improved ovens have been supplied to rural women, helping them to cope with disaster situations as well as easing their household activities.
- So far, 18,000 urban volunteers and 6,540 Cyclone Preparedness Program) volunteers have been trained. One fifth among them are woman which positively indicates their enthusiasm for social service, thus improving their social status.

### **Ministry of Disaster Management and Relief (MoDMR) also Recommended Some Activities for Future**

- Ensuring the Social Safety Net for women aids their economic empowerment so that they can recover from disasters;
- Expanding the coverage of the poorest women in the social safety net, and continuing the allowances for widow and destitute women, old age allowances, disabled persons allowances and Vulnerable Group Feeding (VGD) for poor women;
- Taking special initiatives for the safety and security of women and girls during the pre disaster period and preparing them for disaster recovery by awareness building training and initiatives;
- Rehabilitating women and children made destitute as a result of river-erosion and other natural disasters;
- Taking proper preparedness to ensure the safety of women by giving their safety the highest priority during disaster preparedness and post disaster rehabilitation;
- Giving proper importance for raising the capacity of women to recover in a post disaster emergency situation and helping them not only by relief materials but also with psychosocial assistance;
- Taking initiatives to ensure that the food distribution activities during emergency post disaster period fulfills the needs of women;
- Giving priorities to health issues of women during post disaster period like the demand for their food;
- Involving the people in disaster stricken communities to address the well-being of the destitute women during the pre- and post- disaster period;
- Taking institutional arrangements for the education, treatment, training and rehabilitation for the disabled women;
- Ensuring that relief goods address the needs of lactating mothers, and breast-feeding children, and the reproductive and hygienic needs of women more generally;
- The government should engage women as equal partners in disaster risk management and also include women's organizations in broad-based community disaster coalitions.

## **2. Department of Disaster Management (DDM)**

Department of Disaster Management (DDM) under the Ministry of Disaster Management and Relief was set up in November 2012 following enactment of the Disaster Management Act 2012. The Department has the mandate to implement the objectives of Disaster Management Act by reducing the overall vulnerability from different impacts of disaster by undertaking risk reduction activities; conducting humanitarian assistance programs efficiently to enhance the capacity of poor and disadvantaged as well as strengthening and coordinating programmes undertaken by various government and non-government organizations related to disaster risk



reduction and emergency response. DDM is responsible to execute the directions, recommendations by the Government in connection with disaster management as well as the national disaster management principles and planning.

DDM headed by the Director General focuses on networking and collaborating with the various Ministries, Departments and Scientific, Technical, Research, Academic institutions, Development Partners, UN Agencies and non-government Organizations within and outside the Government working on various aspects of disaster risk reduction and response management.

DDM conducts research, organizes workshops and training programmes, publishes its reports and documents and provide various policy advisory services to the concerned Ministry of the Government of Bangladesh.

DDM has the vision to be recognized as a vibrant Centre of Excellence for knowledge, research and capacity building on disaster management for the Disaster Management professionals across level.

The Vision, the Mission, the Function and the Modalities for setting up the Department of Disaster Management (DDM) were determined in the light of Disaster Management Act 2012 and in consultation with the Ministry of Disaster Management and Relief.

### **Vision**

The Department of Disaster Management (DDM) would be a vibrant department of excellence for Disaster Risk Reduction (DRR) mainstreaming into Disaster Management Programme; vulnerability reduction of peoples, specially the poor and disadvantaged from different impacts of disasters; knowledge, research and capacity building on the whole cycle of disaster management in the light of DM act 2012.

The Disaster Management Vision of the Government of Bangladesh is to reduce the risk of people, especially the poor and the disadvantaged, from the effects of natural, environmental and human induced hazards, to a manageable and acceptable humanitarian level, and to have in place an efficient emergency response system capable of handling large scale disaster

### **Mission**

The Department of Disaster Management (DDM) would serve the Ministry of Disaster Management and Relief to implement the objectives of Disaster management Act 2012 by undertaking risk reduction activities; responding to disaster events efficiently as well as strengthening and coordinating programs undertaken by different stakeholders related to DRR and DRM.

### **Programmes**

#### *Social Safety Net Program*

- Food for Work
- Test Relief (TR)
- EGPP

#### *Humanitarian Assistance Program*

- Relief Assistance
- VGD

### Risk Reduction Program/Project

- At a glance all Projects
- ECRRP-2007
- Cyclone Shelter
- Flood Shelter
- Disaster Resilient House
- Bridge/Culvert( $\leq 12$ m)
- Bridge/Culvert( $\leq 12$ m) Chittagaong Hill Tracts Region
- Procurement of Equipment(2nd Phase)

The Projects aims to further reduce Bangladesh's vulnerability to adverse natural and anthropogenic hazards and extreme events, including the devastating potential impacts of climate change. It will do so through risk management and mainstreaming. CDMP II is a natural expansion and a logical scaling up of its first phase. That pioneering phase laid the foundations for institutionalising the risk reduction approaches and frameworks developed through pilot testing. CDMP II aims to institutionalise the adoption of risk reduction approaches, not just in its host Ministry of Food and Disaster Management, but more broadly across thirteen key ministries and agencies CDMP II (2010-2014) is a vertical and horizontal expansion of its Phase I activities designed based on the achievements, lessons learned and the strong foundation laid during CDMP I by continuing the processes initiated, deriving actions from the lessons learned, utilizing knowledge resources generated and knowledge products published. The approach of CDMP II is to channel support through government and development partners, civil society and NGOs into a people-oriented disaster management and risk reduction partnership. That partnership will promote cooperation, provide coordination, rank priority programmes and projects, and allocate resources to disaster management activities, risk reduction activities and climate change adaptation activities in Bangladesh. CDMP II offers an outstanding opportunity to improve linkages with, and synergies between, disaster risk reduction and adaptation to climate change. This applies both at the community and at the general stakeholder level. The linkages are clearly expressed in many of the activities outlined in the operational outcomes of the project design, as well as through strengthened institutional capacities.

### **CDMP II is Designed Around the Following Six Interrelated Outcome Areas:**

#### Outcome 1

Development of strong, well-managed and professional institutions in Bangladesh that is able to implement a comprehensive range of risk reduction programmes and interventions at the national level, as well as contributing to regional actions, international learning and best practice.

#### Outcome 2

.Reduced risk to rural populations through structural and non-structural interventions, empowerment of rural communities and improved awareness of, and planning for, natural hazard events, including the likely impacts of climate change.

#### Outcome 3

Reduced risk to urban populations through structural and non-structural interventions, improved awareness of natural hazard events and the piloting of urban community risk reduction methodologies targeting the extreme poor.

#### Outcome 4

Improved overall effectiveness and timeliness of disaster preparedness and response in Bangladesh by strengthening management capacity and coordination as well as networking facilities at all levels.

#### Outcome 5

Better disaster-proofing of development funding across thirteen ministries. This will be achieved by generating increased awareness of hazard risks and the provision of technical information, advisory services and resources to stimulate positive changes in planning and investment decisions over the long-term.

#### Outcome 6

Community-level adaptation to disaster risks from a changing climate is effectively managed.

### **Cyclone Preparedness Programme (CPP)**

After the severe cyclone in 1970, by the request of the United Nations, Cyclone Preparedness Programme (CPP) was established in 1972 with the help of the then League of Red Cross. After one year the League of Red Cross decided to withdraw the program from the field with effect from 1st July 1973. Considering the importance of the programme, for the interest of the coastal belt people, government came forward and took the responsibility of the programme by deciding to continue the programme with effect from July, 1973. As a result it appeared as a joint programme of Government of Bangladesh & Bangladesh Red Crescent Society. From that time it has been working in the field of disaster management in Bangladesh especially in early warning system, search and rescue, evacuation, sheltering, first aid, relief distribution and rehabilitation activities.

### **Pre Disaster and During Disaster Activities**

- Signal dissemination system & Channel
- Dissemination of warning signals
- First Aid to the injured people
- Search & Rescue
- Evacuation & sheltering
- Post disaster activities
- Activities in normal period

### **3. Ministry of Environment and Forest (MOEF), Bangladesh**

Bangladesh is one of the most vulnerable countries due to climate change. The degeneration of global environment affects Bangladesh through the increase in temperature, change in the pattern of rainfall, frequent occurrence of floods and droughts, increase in the salinity around the coastal regions etc. Climate change will adversely affect all sub-sectors of agriculture (crops, fisheries, livestock and forest) which will critically hamper the total development process of our country and increase the intensity of poverty. The Ministry of Environment and Forest is ensuring a habitable and sustainable environment for the present and the future generations of the country through increase in forest land, development of forest and forest resources, conservation and identification of bio-diversity.

The forest resources of Bangladesh play an important role in protecting the ecological balance of natural environment and socioeconomic development. The forest sector contributes 2 percent to GDP of the country. About 2 percent of the total population of the country directly or indirectly

depends on the forest for their livelihood through different forest resource based trades and activities- such as wood based industries, wood seasoning and sawing, furniture making, nursery plant, honey collection, and forestation. About 5 lakh people of Sundarban and its adjacent area particularly, Mawali, Rawali and fishermen communities are dependent on the Mangrove forest for their livelihood.

Forest land of Bangladesh covers 17% of the total area of Bangladesh. Ministry of Environment and Forest (MOEF) does not control and oversee the whole area of forest land. There are 15 Lac and 76 thousand hectares which is around 10.7% of total area of forest land under the control of this ministry.

There are also six departments and institutions associated with this ministry. They are given below-

- Department of Environment;
- Bangladesh Forest Department;
- Bangladesh Forest Research Institute;
- Bangladesh Forest Industries Development Corporation;
- Bangladesh National Herbarium;
- Bangladesh Climate Change Trust

#### **4. Department of Environment**

##### **DOE's Vision**

The vision is to ensure sustainable environmental governance for achieving high quality of life for the benefit of present and future generation.

##### **DOE's Mission**

The mission is to help secure a clean and healthy environment for the benefit of present and future generations;

- Through the fair and consistent application of environmental rules and regulations;
- Through guiding, training, and promoting awareness of environmental issues;
- Through sustainable action on critical environmental problems that demonstrate practical solutions, and that galvanize public support and involvement.

#### **5. Bangladesh Climate Change Trust (BCCT)**

Bangladesh is one of the most climate vulnerable countries in the world and will become even more so as a result of climate change. Though the country has made considerable progress in meeting the targets of Millennium Development Goals (MDGs), climate change induced risks like cyclone, tidal surge, coastal inundation and salinity intrusion due to sea level rise, erratic rainfall, flood, river bank erosion, drought, landslide and negative impacts on agricultural production have appeared as hindrances to achieving the targets of Vision 2021. Attaching highest importance to the issue, Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009 was formulated. BCCSAP 2009 identified six thematic areas, namely (1) food security, social protection and health, (2) comprehensive disaster management, (3) infrastructure, (4) research and knowledge management, (5) mitigation and low-carbon development, and (6) capacity building and institutional strengthening.

### **Special Programme for Women Empowerment**

Women are more vulnerable than men during the environmental disasters period. Long established social norms, human rights, social and economic condition, land ownership and housing condition, education, health especially the existing inequality in reproductive health between men and women increase their overall vulnerability to hazards. For instance in drought prone and coastal areas, women and children have to spend more time and energy to collect drinking water and wood for cooking.

Furthermore, women become more vulnerable during disasters when accessing safe drinking water, sanitary and other health facilities. Other than this our social structure induces women and female child to spend more time to collect drinking water and wood for cooking. Use of timber and manure as fuel in cooking, pollutes cooking environment and creates health hazards for women and children. Although women are affected more than man during environmental disasters, they also demonstrated their strong inherent capacity to adapt and mitigate the consequences of disasters. They are more capable to adopt activities such as homestead gardening and forestation, tree plantation, optimal use of water and fuel, careful use of gas burners etc. Women show more responsibility in management and use of forest resources. They also show more awareness in conservation, collection, and use of forest resources.

### **Major Functions of the Ministry**

- Conservation and improvement of the environment and its quality, and control of environmental pollution;
- Adaptation and implementation of appropriate clauses contained in different regional and international conventions, agreements, and protocols relating to environment, forestry and wild life;
- Research and training relating to forestry and environment issues;
- Plantation of trees, creation of new forest areas, extraction of regenerated forest resources, implementation of social forestry programmes and classification of plants ;
- Conservation, expansion and development of both Government and private forest resources, and preparation of a forest inventory;
- Conservation of wild life and bio-diversity, promotion of eco-tourism (environmentally friendly tourism) and establishment of sanctuaries and eco-parks;
- Maintenance of the botanical gardens, and conduct surveys to identify and conserve plant species;
- Extraction of forest resources, establishment of forest resource-based industries, and marketing of the products produced in those industries.

### **Strategic Objectives of the Ministry and their Relevance with Women's Advancement and Rights**

#### *Mitigating the Adverse Effects Arising from Climate Change*

Women suffer most from adverse effects caused on water and agriculture due to climate changes. Women as a major part of the community will accordingly benefit from different adaptation and mitigation programmes. Women will also benefit from employment opportunities as they are included in technician's training program on reducing gas emissions from refrigeration which is responsible for the depletion of the ozone layer. This will enhance their social status as well.

#### *Conservation and Sustainable Management of Forest Resources*

The programs for creation of participatory block forest strip garden, coastal Char and mangrove garden aimed at combating the contraction of forest area will help increase income of the poor community. Different training programs for the people involved in social forestation will increase their awareness and contribute to the creation of forest resources. Women will get opportunities for self-employment and income generation as they get involved in participatory plantation and training, distribution of different fruits, wood and medicinal saplings for homestead gardening. This will indirectly enhance their social status and eventually empowered them.

#### Conservation of Biodiversity:

The implementation of eco-tourism, awareness building, wild life protection law and policies will create employment, increase income, and help in reducing poverty of a significant number of poor people. At least 50% of the participants of biodiversity preservation activities are poor and destitute women. Further, in local planning committees 30% of the representation will be preserved for women. This will implicitly promote their income and social status.

### **Relevance of the Roles and Responsibilities of the Ministry for Women's Advancement and Rights**

The ministry of Environment and Forest is actively working to prepare policies, strategies and action plans and to implement the existing rules and regulations for the development of forest and forest resources, conservation and identification of bio-diversity, prevention of environmental pollution, mitigation and adaptation activities in order to face the adverse effects of climate change. Government has already developed Bangladesh Climate Change Strategy and Action Plan, 2009 and Climate Change Trust Act, 2010. On the basis of the action plan Bangladesh Climate Change Trust Fund (BCCTF) has been created through Government financing and the Bangladesh Climate Change Resilience Fund (BCCRF) amounting to 189.5 million US Dollar has been established with the financial support from development partners. The following issues relating to women's development are included in Bangladesh Climate Change Strategy and Action Plan – 2009:

- Although women have been recognized as the most vulnerable position due to climate change, emphasis is given to enabling women's adaptation capacity through creation of employment, ensuring their access to fundamental services such as food and housing and increasing their social safety net.
- Emphasis is given on employment creation for rural poor women through expansion of social afforestation across the country to mitigate and develop low carbon emission initiatives.
- The Ministry has undertaken different mitigation activities against air pollution by addressing issues like brick fields, soil fertility, depletion of forest, pollution of water, and pollution caused by industrial toxic waste. Brick kilns are being considered as one of the major air pollution sources, and initiatives have been taken to demonstrate environment friendly, energy efficient brick kiln technologies. The Government has enacted Hazardous Waste and Ship Breaking Waste Management Rules 2011 and enactment of Solid Waste Management Rules 2012 is in its final stage. It is expected that all these mitigating activities will have positive impacts on women and children's health.

- At present, there are 34 protected areas in the country. Moreover, 3 more new areas are under process of declaration as protected areas. In these participatory-biodiversity-protection activities 50 percent poor and destitute women's representation will be ensured. Moreover, 30 percent women's participation will also be ensured in the local planning and management committee of forest resources.
- Moreover, to institutionalize the Social Afforestation Programme Government has enacted revised regulation in 2010. In the revised regulation there is a provision for active woman participation in forest management committee. Further initiatives have been taken to provide training on forest management and conservation of bio-diversity to the beneficiaries under the social afforestation programme and people involve in co-management of reserved forests of which 40 percent are women. These activities enhance the women empowerment and uphold our country image in the international arena as well.

## 6. National Action Plan 2020

Long term focused activities have been taken in National Action Plan 2020 for conservation of valuable biodiversity. The following areas have been recognized for women's socio- economic development in national action plan:

- Participation of poor rural women in tree plantation, prevention of tree felling, and expansion of agricultural business will be ensured. Women are given equal access to different agricultural inputs such as fertilizer, loan, education, training, information, ownership of social forestland and its profit.
- Women's participation is encouraged in different agriculture expansion activities such as training, rally, and workshop.
- Credit facilities are also being given for development of women entrepreneurship.

### Priority Spending Areas and Benefits for Women's Advancement

Priority spending Area/Program	Impact on women's advancement (Direct and Indirect)
<p><u>Mitigation of the adverse effects of climate change</u> Bangladesh being one of the most vulnerable countries of the world to climate change, first priority has been given to facing the adverse effects of climate change, awareness building about climate change, and adaptation strategies.</p>	<ul style="list-style-type: none"> <li>• 150 women are given training under 'Clean Air and Sustainable Environment project' of the Environment Directorate. In addition, through the community based adaption to ecologically critical area through pro-biodiversity observation and social protection Project in Sylhet and Cox'sbazar, women will be selected as member of village conservation group.</li> <li>• In the training program for technicians on emission of ozone gas from refrigerators, women have been included. Different adaptation and mitigation activities will benefit women, reduce their health hazards, and create their employment, increase income and promote quality of</li> </ul>

	life.
<p><u>Preservation of forest resources and sustainable management</u></p> <p>This sector has been given priority in context of the growing importance of prevention of soil erosion and regeneration of forest, development of soil quality, protection of human life and properties from the adverse effects of climate change, protection of biodiversity, reduce poverty, increase oxygen in atmosphere, increase of forest resources and bring balance in the environment.</p>	<ul style="list-style-type: none"> <li>• Of the total representatives to be selected for wild life survey in Chittagong Hill Tracts, 80 percent of them will be women under the project implemented by Bangladesh Forest Research Institute. 20 percent women will be employed in preparation of Cement Based Particle Board.</li> <li>• About 30% of women beneficiaries are being benefited from forest preservation programs under participatory social forestation projects. Of the total earnings obtained from sale proceeds of the forest resources, 45-55 percent is distributed to women beneficiaries. Under Integrated Protected Area Co-management project 10 thousand beneficiaries are involved in social afforestation and will be given training of which 40 percent are women. Moreover, there is a provision that 2 out of 5 members in the committee will be women to ensure women's participation.</li> <li>• Under Social Afforestation Programme 1,85 crore 38 luck taka has been distributed among 1 luck 3 thousand beneficiaries of which 30 percent are women. This will enhance their economic empowerment and social status as well.</li> </ul>
<p><u>Control of pollution</u></p> <p>Implementation of different components of Environment Protection Act 1995 such as control of pollution, solid and liquid waste management, etc.</p>	<ul style="list-style-type: none"> <li>• Women account for half of the total population; different programs in this area will have positive impact on women's general and reproductive health.</li> <li>• A joint venture programme named Development of Marketing of the Environment Friendly Cooking has been taken with the collaboration of Department of Environment and Deutsche Gesellschaft International Zusammenarbeit (GZI). This programme is financed by Bangladesh Climate Change Trust Fund (BCCTF) and GZI. Under this programme Department of Environment is providing 5 luck</li> </ul>



	environment friendly cookers without any cost in 64 districts to protect women from indoor air pollution. This activity will improve their social status and enhance the empowerment as well.
<p><b><i>Biodiversity conservation</i></b></p> <p>Biodiversity is affected by overpopulation, climate change and changing livelihoods. Activities/projects of this area include expansion of protected forest, protection of endangered plants and animal life, protection of fern and fauna, improvement of environment and ecology, survey of forest and wild animals, collection of information, promotion of ecotourism, protection of the balance in food chain and creation of mass awareness regarding coexistence of animal species and alternative food sourcing.</p>	<ul style="list-style-type: none"> <li>• Under 34 Integrated Protected Area Co-management project, 50 percent of the project beneficiaries will be selected from women and be involved in participatory biodiversity preservation activities. Also, 30 percent women's representation will be ensured in local project planning committee. Moreover in biodiversity preservation project in greater Rajshahi and Kustia, 30 percent women will be given responsibility of forest conservation. Again, under the Biodiversity Conservation and Eco-tourism programme has created 10 luck man months employment opportunity out of which 50 percent will be occupied by women.</li> <li>• All these activities create opportunities for women's employment and income generation and access to government resources and services. This will increase their social status.</li> </ul>

Table 3 Priority Spending Areas and Benefits for Women's Advancement

**Women's Share in Ministry's Total Expenditure (Taka in Core)**

Description	Budget 2013-14			Revised 2012-13			Budget 2012-13		
	Budget	Women Share		Revised	Women Share		Budget	Women Share	
		Women	%		Women	%		Women	%
Total National Budget	2,22,491	61,575	27.68	1,89,334	54,304	28.68	1,91,737	50,340	26.25
Ministry Budget	799	293	36.67	912	378	41.45	974	400	41.07
Development	334	164	49.10	260	146	56.15	325	189	58.15
Non-Development	465	129	27.74	652	232	35.58	649	211	32.51

Table 4 Women's Share in Ministry's Total Expenditure

### **Success in Promoting Women's Advancement**

- Environment Department has initiated a training program for the technicians on emission of ozone gas from refrigerators, under the ODM programme and there is provision for women participation. This will in turn create new employment opportunity for women.
- Department of Environment has taken programmatic CDM (Clean Development Mechanism) project from the Bangladesh Climate Change Trust Fund (BCCTF). Under this project there will be solid waste collection/management of 64 City Corporations of Bangladesh and prepare compost (organic) fertilizer. It is expected that all these mitigating activities will have positive impacts on women and children's health.
- Under the Community Based Adaptation to Climate Change through Coastal Afforestation programme Department of Forest has initiated a training program on tree plantation, nursery development and other related activities for its beneficiaries. This training will cover the people who are involved in social afforestation Programme and among them 13 thousand 5 hundred and 8 participants are women. This will in turn create new employment opportunity.
- Department of Forest has initiated to create an employment opportunity of 3 lakh 74 thousand man days under the Biodiversity Preservation project in greater Rajshahi and Kustia districts. Of which 50 percent destitute and poor women labour will get the employment opportunity.

### **Recommendations for Future Activities**

- Ministry is preparing policies, strategies and action plans and to implement the existing rules and regulations for the prevention of environmental pollution, mitigation and adaptation activities in order to face the adverse effects of climate change. In the related rules and regulation and action plan it is not clearly spell out that how this will work to achieve the women empowerment. For this qualitative and quantitative advancement of women empowerment cannot be measured.
- The ministry of Environment and Forest is trying to incorporate the share, employment opportunity, health security of women in the various rules and regulation regarding the extension and development of forest and forest resources, conservation and identification of bio-diversity. Moreover, there should be some holistic approach to address this issue nationally.

## **7. Ministry of Food and Disaster Management**

### **GoB Vision on Disaster Management:**

- to reduce the vulnerability
- of people, especially the
- poor, to the effects of natural, environmental and
- human induced hazards to a manageable and
- acceptable humanitarian level

### **MoFDM Mission:**

- to bring a paradigm shift in disaster management
- from conventional response and relief to a more
- comprehensive risk reduction culture and to
- promote food security as an important factor in

- ensuring the resilience of the communities to
- hazards
- Overall Objective:
- to strengthen the capacity of the Bangladesh
- Disaster Management System to reduce
- unacceptable risk and improve response and
- recovery management at all levels and to effectively
- integrate and manage Bangladesh's food security
- system

### **Strategic Focus for Disaster Management**

- Professionalising the Disaster Management System
- Mainstreaming Community Empowerment
- Expanding risk reduction across a broader range of hazards
- Strengthening emergency response systems
- Maintaining and strengthening the national
- food security system

## **8. Disaster Management Bureau**

### **Mission**

Department of Disaster Management (DDM) under the Ministry of Disaster Management and Relief was set up in November 2012 following enactment of the Disaster Management Act 2012. The Department of Disaster Management (DDM) would serve the Ministry of Disaster Management and Relief to implement the objectives of Disaster management Act 2012 by undertaking risk reduction activities; responding to disaster events efficiently as well as strengthening and coordinating programs undertaken by different stakeholders related to DDR and DRM.

### **Disaster Reduction Goal**

The Department of Disaster Management (DDM) would be a vibrant department of excellence for Disaster Risk Reduction (DRR) mainstreaming into Disaster Management Programme; vulnerability reduction of peoples, specially the poor and disadvantaged from different impacts of disasters; knowledge, research and capacity building on the whole cycle of disaster management in the light of DM act 2012.

### **National Policy and Plans**

Bangladesh: National progress report on the implementation of the Hyogo Framework for Action (2009-2011) 2011, DMB, Bangladesh - gov

Bangladesh: National plan for disaster management 2010-2015 2010, DMB, Bangladesh - gov

Bangladesh: National disaster management plan 2008-2015 draft (2008)

## **9. Bangladesh: National progress Report on the Implementation of the Hyogo Framework for Action (2009-2011)**

The preparation of this National Progress Report has been undertaken within the framework of the biennial 2009-11 HFA Monitoring and Progress Review process, facilitated by UNISDR and ISDR System partners.

The progress report assesses current national strategic priorities with regard to the implementation of disaster risk reduction actions, and establishes baselines on levels of progress achieved with respect to the implementation of the HFA's five priorities for action.

### **Gender Perspectives on Risk Reduction and Recovery Adopted and Institutionalized**

Again, Bangladesh has a long tradition in incorporating gender aspects and promoting women leadership in DRR at local and national level through policy directions (such as designating a seat). However, true gender mainstreaming in DRR is limited. As part of the cyclone and flood response plans gender issues were incorporated and the national disaster management planning does priorities violence against women as a key priority to protect women interests in disaster management. Revised SOD has outline the role of women and accordingly in all committees representation from women is placed, but much work remains to be done to ensure that the gender perspective is undertaken. Creative and innovative culturally appropriate actions need to be developed to meet these challenges. Many studies specifically focused on women issues have been conducted by various actors in disaster management. For example, GoB has commissioned a study to understand the impact of climate change on women

### **10. Bangladesh: National Plan for Disaster Management 2010-2015**

This plan is an outcome of the national and international commitments of the Government of Bangladesh (GoB) and the Disaster Management and Relief Division (DM&RD) for addressing the disaster risks comprehensively. It has been developed on the basis of the GoB Vision and MoFDM mission to reduce the vulnerability of the poor to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level by (i) bringing a paradigm shift in disaster management from conventional response and relief practice to a more comprehensive risk reduction culture and (ii) Strengthening the capacity of the Bangladesh disaster management system in improving the response and recovery management at all levels.

### **11. Bangladesh: National Disaster Management Plan 2008-2015 draft (2008)**

The National Plan for Disaster Management 2008-2015 is an outcome of the national and international commitments of the Government of Bangladesh (GoB) and the Ministry of Food and Disaster Management (MoFDM) for addressing the disaster risks comprehensively. The plan has been developed on the basis of the GoB Vision and MoFDM mission to reduce the vulnerability of the poor to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level by a) bringing a paradigm shift in disaster management from conventional response and relief practice to a more comprehensive risk reduction culture and b) strengthening the capacity of the Bangladesh disaster management system in improving the response and recovery management at all levels. The plan reflects the basic principles of the SAARC Framework on Disaster Management.

There are also some Goals, Strategy Papers, actions, conventions and programmes which are very much influential in policy making in Bangladesh. Here this study illustrates important sides of those initiatives.

## **Millennium Development Goals**

The Millennium Development Goals of September 2000 identified, among others, the following key objectives:

‘We will spare no effort to ensure that children and all civilian populations that suffer disproportionately the consequences of natural disasters are given assistance and protection so that they can resume normal life as soon as possible’.

Here mentionable that the following four goals among the eight are very relevant my research topic:

- Promote gender equality and empower women, (3<sup>rd</sup> goal of MDG);
- Reduce child mortality, (4<sup>th</sup> goal of MDG);
- Improve maternal health, (5<sup>th</sup> goal of MDG);
- Ensure environmental sustainability, (7<sup>th</sup> goal of MDG);

Though the goals of MDG have emphasized on women and children, its key objectives have not mentioned women specifically, where it has mentioned about children. The key objectives have generalized women with all civilian population.

## **Poverty Reduction Strategy Paper (PRSP), Bangladesh**

The core principle of the Bangladesh PRSP includes the following:

- It is country-driven and promotes national ownership of strategic through broad-based participation of civil society;
- It is result-oriented and focused on outcomes that will benefit the poor;
- It is comprehensive in recognizing the multidimensional nature of poverty;
- It is partnership-oriented and involves coordinated participation of development partners (government, domestic stakeholders and external donors); and
- It is based on a long-term perspective for poverty reduction.

Considering the direct poverty disaster linkages the Bangladesh PRSP included one separate policy matrix Number 07 on comprehensive disaster management towards poverty reduction and growth.

Disaster Management as a cross-cutting issue is being included in the following three policy matrices:

- Food security
- Promote use of ICT in Disaster Management
- *Ensure social protection for women against vulnerability and risks*

The Policy Matrix 07 envisages:

- Mainstreaming disaster management and risk reduction into national policies, institutions and development process (introduction of Disaster Impact and Risk Assessment, DIRA).
- Strengthening disaster management and risk reduction capacity.
- Ensuring knowledge management (acquiring, storing, sharing and applying) on disaster risk reduction.
- Enhancing community level capacity for disaster risk reduction (community level preparedness, response, recovery and rehabilitation).

Ensuring social protection of women, children, elderly, people with disability and other vulnerable groups against vulnerability and risk.

## **12. Hyogo Framework for Action (HFA), 2005-2015**

On January 18-22, 2005, the World Conference on Disaster Reduction was held in Kobe, Japan. The conference produced a 10 year Framework document called 'Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities.' The HFA commits:

- To pursue an integrated multi-hazard approach for sustainable development to reduce the incidence and severity of disasters;
- To place disaster risk at the center of our political priorities and policies;
- To integrate disaster risk reduction in all our development work;
- To strengthen the capacity of disaster-prone countries to address risk;
- To invest substantively in disaster preparedness;
- To reduce the relief-development gap and thereby reduce vulnerability;
- To enable civil society actors and affected communities to strengthen their resilience to disaster;
- To reduce the gap between what we know and what we do, with the critical ingredient being political commitment; and
- To build on the momentum of this World Conference to accelerate implementation of the Framework for Action.

## **13. United Nations Framework Convention on Climate Change (UNFCCC)**

The Convention on Climate Change sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resources whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases.

Under the convention, government's policies are:

- Gather and share information on greenhouse gas emissions, national policies and best practices
- Launch national strategies for addressing greenhouse gas emission and adapting to expected impacts, including the provision of financial and technological support to developing countries
- Cooperate in preparing for adapting to the impacts of climate change.

## **14. National Adaptation Programmes of Action (NAPA)**

As an outcome of the climate change convention, National Adaptation Programmes of Action (NAPAs) provides a process for Least Developed Countries to identify priority activities that respond to their urgent and immediate needs with regard to adaptation to climate change. Bangladesh among the first countries to prepare and submit its NAPA with the UNFCCC secretariat in November 2005.

### **Adaptation Measures as Prioritized in Bangladesh NAPA**

Intervention measures

- Promoting adaptation to coastal crop agriculture to combat salinity intrusion through maize production under Wet Bed No-tillage Method and *Sorjan* systems of cropping in tidally flooded agro ecosystem.

- Adaptation to agriculture systems in areas prone to enhanced flash flooding in the North East and Central Region through no-tillage potato cultivation under water hyacinth mulch in wet sown condition, and vegetable cultivation on floating beds.
- Promoting adaptation to coastal fisheries through culture of salt-tolerant fish
- Promoting adaptation to coastal fisheries through culture of salt-tolerant fish especially in coastal areas of Bangladesh.
- Adaptation to fisheries in areas prone to enhanced flooding in North East and Central Region through adaptive and diversified fish culture practices.
- Construction of flood shelter, and information and assistance centre to cope with enhanced recurrent floods in major floodplains.
- Reduction of climate change hazards through coastal afforestation with community focus.
- Providing drinking water to coastal communities to combat enhanced salinity due to sea level rise.
- Enhancing resilience of urban infrastructure and industries to impacts of climate change including floods and cyclone.

**Facilitating measures:**

- Capacity building for integrating Climate Change in planning, designing of infrastructure, conflict management and land water zoning for water management institutions.
- Exploring options for insurance and other emergency preparedness measures to cope with enhanced climatic disasters (e. g. flood, cyclones and drought).
- Mainstreaming adaptation to climate change into policies and programmes in different sectors (focusing on disaster management, water, agriculture, health and industry).
- Inclusion of climate change issues in curriculum at secondary and tertiary educational institution.

**15.SAARC Framework for Action (SFA) 2006-2015**

The Heads of State or Governments in the 13th Dhaka Summit called for elaboration of a Comprehensive Framework on Early Warning and Disaster Management. In view of the December 2004 Asia Tsunami and the 2005 Pakistan Earthquake, the Heads of State or Governments underscored the urgency to put in place a regional response mechanism dedicated to disaster preparedness, emergency relief and rehabilitation to ensure immediate response. They directed the concerned national authorities to coordinate their activities in the areas of disaster management such as early warning, exchange of information, training and sharing of experiences and best practices in emergency relief efforts.

Following the Dhaka Declaration, a SAARC (South Asian Association for Regional Cooperation) Expert Group was formed to formulate a regional comprehensive framework on disaster management for the SAARC region. Framework on Disaster Management titled “Disaster Management in South Asia: A Comprehensive Regional Framework for Action 2006-2015”, for consideration.

Strategic Goals of the framework include the following:

- Professionalizing the disaster management system;
- Mainstreaming disaster risk reduction;
- Strengthening of community institutional mechanisms;
- Empowering community at risk particularly women, the poor and the disadvantaged;

- Expanding risk reduction programming across a broader range of hazards (all hazards approach);
- Strengthening emergency response systems; and
- Developing and strengthening networks of relevant national, regional and international organizations.

*The SFA Identifies the Following as the Priority Areas for Action:*

- Develop and implement risk reduction strategies
- Establish Regional and National Response Mechanisms
- Establish a Regional Information Sharing Mechanism and Develop Network of Institutions and Organizations
- Develop and implement Disaster Management training, education, research and awareness programmes
- Apply the ICT for disaster management.
- Establish an effective monitoring and evaluation mechanism.

*For Implementation and Follow up of the SFA, It Has Been Emphasized That:*

- The strategic goals and priorities for action should be addressed by different stakeholders in a multi-sectoral approach, including the development sector.
- Member States and regional organizations will integrate disaster risk reduction considerations into their sustainable development policy, planning and programming at all levels.
- Civil society, including volunteers and community-based organizations, the scientific community and the private sector are vital stakeholders in supporting the implementation of disaster risk reduction at all levels.
- While each Member State has primary responsibility for its own economic and social development, an enabling regional environment is vital to stimulate and contribute to developing the knowledge, capacities and motivation needed to build disaster resilient nations and communities.
- All the Member States will be encouraged to apply a holistic approach and maintain consistency in programming and building multi-stakeholder partnerships at all levels, as appropriate, to contribute to the implementation of this Framework for Action.
- Member States and other actors are encouraged to promote the strengthening or establishment of volunteer corps, which can be made available during disasters.
- Member countries shall develop their own plan of action for implementation of this framework.

## **16. Bangladesh Climate Change Strategy and Action Plan 2009**

The Government of Bangladesh's Vision is to eradicate poverty and achieve economic and social wellbeing for all the people. This will be achieved through a pro-poor Climate Change Strategy, which prioritizes adaptation and disaster risk reduction, and also addresses low carbon development, mitigation, technology transfer and the provision of adequate finance. Accordingly Government has developed and enacted Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009.

The BCCSAP is presented in two parts.



The first part provides the background based on physical and climatic contexts, core socio-economic realities and policies in the country and the consequent rationale for a strategy on climate change. The thrust of the strategy is on sustainable development, poverty reduction and *increased wellbeing of all vulnerable groups in society with special emphasis on gender sensitivity*.

The second part elaborates a set of programmes based upon six pillars or broad areas of intervention (not necessarily mutually exclusive) that have been elaborated in the first part.

It also describes a ten-year programme to build the capacity and resilience of the country to meet the challenge of climate change over the next 20-25 years. Following are the thematic areas:

#### *Food Security, Social Protection and Health*

To ensure that the poorest and most vulnerable in society, including women and children, are protected from climate change and that all programmes focus on the needs of this group for food security, safe housing, employment and access to basic services, including health.

#### *Comprehensive Disaster Management*

To further strengthen the country's already proven disaster management systems to deal with increasingly frequent and severe natural calamities.

#### *Infrastructure*

To ensure that existing assets (e.g., coastal and river embankments) are well maintained and fit-for-purpose and that urgently needed infrastructure (e.g. cyclone shelters and urban drainage) is put in place to deal with the likely impacts of climate change.

#### *Research and Knowledge Management*

To predict the likely scale and timing of climate change impacts on different sectors of the economy and socio-economic groups; to underpin future investment strategies; and to ensure that Bangladesh is networked into the latest global thinking on climate change.

#### *Mitigation and Low Carbon Development*

To evolve low carbon development options and implement these as the country's economy grows over the coming decades.

#### *Capacity Building and Institutional Strengthening*

To enhance the capacity of government ministries and agencies, civil society and the private sector to meet the challenge of climate change.

#### **The Objectives of this Plan are to:**

- Align the strategic direction of disaster management programs with national priorities and international commitments.
- Articulate the vision and goals for disaster management.
- Outline the strategic direction and priorities to guide the design and implementation of disaster management policies and programs.
- Create a cohesive and well-coordinated programming framework incorporating government, non-government and private sector.

- Ensure that disaster management has a comprehensive and all-hazards focus comprising disaster risk reduction and emergency response.
- Illustrate to other ministries, NGOs, civil society and the private sector how their work can contribute to the achievements of the strategic goals and government vision on disaster management.

**The Core Principles of this Plan Have Been Adopted from the PRSP.**

- Country-driven, promoting national ownership of strategies through broad based participation of government, NGOs and civil society.
- Result oriented and focused on outcomes that will benefit vulnerable communities, especially women, the poor and socially disadvantaged.
- Comprehensive in recognizing the multidimensional nature of risk reduction.
- Partnership oriented, involving coordinated participation of development partners (government, domestic stakeholders, and external donors)
- Based on a long-term perspective for risk reduction.

**Vulnerability Assessment**

In order to understand the interaction of hazards on communities, it is important to conduct a vulnerability assessment. This should be completed in terms of elements within the community (e.g. women, children, and the poor), support elements to the community (e.g. lifelines (electricity) transportation links, community services) and livelihood factors within the community (e.g. food, accommodation, farm activity, industry)

**Risk Treatment**

Risk Treatment options involve ranking risk in priority, and addressing vulnerability by determining actions that reduce or eliminate risk or by determining mitigation programs for communities.

**Management Aspects of Shelter Center in Coastal Zones**

Disaster Management Bureau proposes the facilitating role of local Disaster Management Committee in forming the Cyclone Center Management Committee for each center. The committee will have the following types of representation:

- A member of local Disaster Management Committee
- Locally Elected Representative (UP Member)
- Head Master of local Primary School
- Imam of Local Masjid
- NGO representative
- Women representative

**17.Sixth Five Year Plan**

**FY2011 – FY2015; General Economics Division (GED) Planning Commission Government of the People’s Republic of Bangladesh**

The Sixth Plan called for a two-pronged approach for empowering women and ending gender based discrimination. First, gender will be mainstreamed into all sectoral interventions. Second efforts will be taken to remove all biases against women in society but also in policies, programmes, institutions.

The strategies adopted in the Sixth Plan to improve women’s empowerment and social participation consisted of:

Political and Legal Empowerment will be Ensured by-

- i. Addressing women’s advancement and rights issues taking into account the Constitution of the People’s Republic of Bangladesh and other commitments to international forums and
- ii. Ensuring participation and representation of women in all national and local political institutions.

Economic Empowerment will be Addressed by-

- i. Increasing and improving the opportunities for women’s employment;
- ii. Providing an enabling work environment; and
- iii. Strengthening women’s economic decision making power by promoting women producers, women trade unions and women entrepreneurs .

Social Empowerment Requires-

- i. eliminating gender health and education disparities,
- ii. prioritizing women in social programmes, loans and microcredit,
- iii. eliminating violence against women through adequate reporting of incidents, and medical, legal and psychological treatment,
- iv. recognizing the multitude of social identities women can have: ethnic, religious, wealth groups, disabilities and taking it into account when formulating policies and programmes to address their needs and
- v. promoting women’s statuses through media.

A set of targets were articulated to monitor the extent to which gender equality and women empowerment has been achieved during the plan’s execution.

**Implementation**

The table below shows considerable progress has been made in further improving gender quality in a number of areas. Bangladesh already stands out among comparable per capita income countries in terms of achieving parity in primary and secondary school enrolment. Solid progress has also been made in reducing the large gap between male and female students at the tertiary level. Other indicators also show commendable improvement, although there is still a gap in the area of formal employment.

Progress with Women Empowerment in the Sixth Plan				
Objective	Performance Indicators	Baseline FY(2010)	Target FY 2015	Actual FY2015
Women and men should enjoy equal social, political and economic opportunities	Ratio of girls to boys in tertiary education	32%	60%	50%
	Seats held by women in national parliament	18.6%	33%	20%
	Ratio of literate females to males (percent of ages 20-24)	85%	100%	86%
	Share of women		50%	32%

	employed in the non-agricultural sector	20%		
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Table 5 Progress with Women Empowerment in the Sixth Plan; (Source: Sixth Plan)

In addition to endorsement of all international conventions for the protection of women’s rights, Bangladesh took many new legal and policy measures during the Sixth Plan to uphold the rights of women. An important step was the reformulation of the National Women Development Policy (NWDP) 2011, and the National Action Plan to implement the Policy. Laws formulated include the Domestic Violence (Prevention and Protection) Act, 2010, the Domestic Violence Prevention and Protection Rules 2013, Prevention and Suppression of Human Trafficking (PSHT) Act 2012, Hindu Marriage Registration Act 2012 and National Children’s Act 2013. Conducive rulings were given by the High Court included directives concerning women and children development. Some sectoral laws that were enacted ensuring protection and benefits of women such as, Overseas Employment and Migration Act 2013 and the Pornography Control Act 2012. Similarly, some policies formulated addressed specific gender needs that include among others, National Children Policy 2011, National Education Policy 2010, and National Skill Development Policy 2011. Several acts and policies formulated before the beginning of Sixth Plan, which incorporated provisions for participation and protection of women’s rights were in effect, such as the Citizenship (Amendment) Act, 2009 and the laws governing the local government institutions. The People’s Representation Ordinance on representation in political parties and in national parliament was revised in 2013.

On the policy front, the most important step has been to ratify the National Women Development Policy (NWDP) in 2011. Its vision is to “create a society where men and women will have equal opportunities and will enjoy all fundamental rights on an equal basis”. A list of 20 goals was formulated in order to empower women in all aspect of life: socially, legally, economically and politically.

In terms of results, progress has been most advanced in education (as noted earlier) and in the area of political empowerment. Rapid expansion of female education is changing social norms in urban areas and slowly but surely in rural areas. Although follow up data is not available since the 2013 Labour force Survey, it is quite likely that the labour force participation of women as increased from its low level of 33.5 percent in 2013. Anecdotal evidence suggests that more educated women are now entering the formal labour market. Regarding political empowerment, in the past 20 years, the percentage of female parliamentarians has increased from 12-13 percent in the 1980s to 20 percent now. This was facilitated by the reintroduction of quotas in 2004, allowing 45 parliament seats to be reserved for women with a further increased to 50 in 2011. According to the Gender Gap Report (GGR) of the World Economic Forum 2014, Bangladesh ranked 10th out of 142 countries for women political empowerment.

Global Gender Index (Political Empowerment)		
Country	Gender Gap Score	Gender Ranking
Iceland	0.6554	1
Bangladesh	0.4055	10
India	0.3855	15
UK	0.2698	33
Sri Lanka	0.1965	50
USA	0.1847	54
China	0.1506	87

Japan	0.0583	104
Brunei Darussalam	0.0000	142

Table 6 Global Gender Index on Political Empowerment; [Source: World Economic Forum Gender Gap Report 2014; Scores range from 1 (equality) to 0 (inequality)]

Through the multitude of new laws noted above, the Government is trying hard to change the socio-cultural norms that may hinder women’s status and empowerment within the society through adopting laws to ban child marriage, acid throwing, violence against women, eve teasing, dowry etc. The Domestic Violence (Prevention and Protection) Act of 2010 was passed in accordance to international commitments to enable women to file legal complaints against all form of domestic violence. The act provides a very wide definition of domestic violence which includes not only physical and sexual abuse, but also psychological (harassment, controlling behaviour and verbal abuse) as well as economic abuse (forceful deprivation of financial and economic resources). Another project that has been executed to eliminate violence against women is the third phase of the Multi-Sectoral Programme on Violence against Women, implemented jointly by the Government of Bangladesh and the Government of Denmark. Eve teasing is a serious offense in Bangladesh with adequate legal and social sanctions.

Other projects and programmes have been implemented to protect and empower women. Amongst these the “Multipurpose Rehabilitation Centre for Destitute Age-Old People and Socially Disabled Adolescent Girls” project, to rehabilitate elderly women and disabled girls through skill training and the “Bangladesh Mohila Samity Complex Building for the Underprivileged Women in the Society” to create a space for undertaking women development programmes in a safe and proper environment. The Government has carried out various initiatives to help promote women employment and their economic empowerment. Training centres have been established to provide women with different income generating skills (e.g. ICT, entrepreneurial, food processing).

Finally, steps have also been taken to incorporate gender dimensions in the formal budgeting process. In 2005, the GoB introduced Gender Responsive Budgeting (GRB) in an effort to mainstream gender issues at all policies and decision making levels. In FY2013, 25 of the ministries were undergoing GRB. A set of guidelines has also been issued to ensure that development projects are prepared and reviewed in a gender sensitive way.

Nevertheless, despite progress, there is unfinished agenda. The main challenges are:

- The implementation of social laws remains a major challenge. The Government’s monitoring capacity of domestic violence against women and domestic aid is a constraint.
- Progress in the area of economic equality is lagging behind. With regards to women accessing important factors of production such as land and credit, Bangladesh scores low in the GGR 2014. Despite progress during the Sixth Plan, the women’s labour force participation rate still remains low by international norms. When included in the labour market, women still face different forms of discrimination. They are more prone to under-employment and wage and occupational gender gaps remain significant. According to GGR 2014, women receive only 57% of the male wages for equal work, and less than a third of professional and technical workers are women.

Lack of gender responsive working environment including inadequate facilities of child care, transport, occupational health and safety discourage women from accessing the job market. Women workers in the informal sector have no legal protection against abuse, discrimination, irregular employment, low wages, and long work hours. Although policy measures are in place

and the Government has granted women 6 months maternity leave, often this is not followed by the private sector or the NGOs.

### **Progress With of Strategies During 6th Plan**

- Disaster management would involve the management of both risk and consequences of disasters.
- Involvement of local government bodies would be an essential part of the strategy. Selfreliance should be the key for preparedness, response, and recovery.
- Non-structural mitigation measures such as community disaster preparedness training, advocacy, and public awareness must be given a high priority; this would require an integration of structural mitigation with non-structural measures.

## **18. SEVENTH FIVE YEAR PLAN**

### **FY2016 – FY2020**

#### **(Accelerating Growth, Empowering Citizens)**

#### **General Economics Division (GED) Planning Commission Government of the People’s Republic of Bangladesh**

A Perspective Plan (2010-2021) and two five year plans, 6th (2011-2015) and 7th (2016- 2020), were to implement Vision 2021. The 6th Five Year Plan (FYP) moved the nation from the somewhat investment-driven and resource dependent framework to a broader socio-economic transformation vision, unifying the various state and non-state actors with specific milestones and complementary roles.

#### **Gender Strategy for the Seventh Plan**

The gender vision of the 7th Five Year Plan is that of establishing “a country where men and women will have equal opportunities and rights and women will be recognized as equal contributors in economic, social and political development”. The mission is to ensure women’s advancement as self-reliant human beings and reduce discriminatory barriers by taking both developmental and institutional measures. Gender equality and women’s empowerment agenda for the 7th FYP is based on pursuing strategies and actions that not only enhance women’s capabilities and access to resources and opportunities but also address the control over resources, decision making, reducing the barriers in structures and institutions and aim at changing social norms and protecting their rights are critical to integrate within the plan. Establishing monitoring, oversight and accountability mechanisms is equally important.

The framework for women’s empowerment and gender equality comprises of 4 areas of strategic objectives:

#### **Improve Women’s Human Capabilities**

This deals with women’s and girls’ access to health care, life expectancy, nutrition, reproductive health, education, information, training, and other services that enables women to achieve better health and educational outcomes. This also includes women’s freedom from violence and coercion.

#### **Increase Women’s Economic Benefits**

This relates to women’s access to or control over productive assets, resources, services, skills, property, employment, income, information, technology, financial services, and other economic opportunities including community resources like land, water, forest etc.

### Enhance Women's Voice and Agency

This pertains to women's role as decision makers in public and private spheres including politics and promotion of their leadership is considered here. Changed attitudes on women's and girls' rights, women's enhanced knowledge of their rights and increasing their bargaining power are reflected on.

### Create an Enabling Environment for Women's Advancement

The socio-political environment, legal and policy support, and congenial social norms are the key in this area. Oversight, enforcement of laws, regular collection of sex-disaggregated data, gender and social analysis skills including the capacity to develop, implement, and monitor gender strategies, understanding of gender issues in the sector are the key areas.

To implement these strategic objectives, seven action areas have been identified that will contribute in achieving results in these four areas.

1. Increase access to human development opportunities
2. Enhance access to and control over productive resources
3. Increase participation and decision making
4. Establish conducive legal and regulatory environment
5. Improve institutional capacity, accountability and oversight
6. Increase protection and resilience from crisis and shocks
7. Promote positive social norms

### **Increase Access to Human Development Opportunities**

Building the human capital of women to foster equality of opportunity is essential. Early and continuous investments in human development for girls are necessary for equitable economic growth. Education, health, nutrition, freedom from violence and such others are considered enabling human development opportunities. To implement this strategic objective, the Seventh Plan will focus on the following areas.

### **Life Cycle Based Disease Prevention and Curative Healthcare Services**

Considering the current realities of women in Bangladesh, a lifecycle based healthcare system including tertiary care should be accessible to women within affordable cost. The health care system would be made more responsive to differential needs of women and men aiming at reducing discrimination and ensuring equal benefits. One important initiative will be to undertake information and motivational campaigns to inform households, both women and men about the need and availability of preventive care and screening services. Coverage of the existing low cost health care services will be expanded to include the poor of the remote and vulnerable areas. The ongoing primary health care services would ensure equal immunization support for both girls and boys who are not covered yet. Similarly, immunization, maternal and ante-natal care for pregnant women and post-natal care for both mother and child would be ensured through increased facilities as well as information and motivation both in rural and urban areas. Reproductive and sexual health care services including counselling would be expanded. Expansion of women friendly hospitals in all districts by enhancing services in all sadar hospitals and medical college hospitals including outputs of reproductive health care will be done. The system for registration and tracking of services for women and children at the community clinics and all hospitals would be made more effective. HIV testing and counselling would be scaled up among key populations and high risk groups and awareness amongst migrant labourers and their

spouses need be promoted. Prevention of Mother to Child Transmission services will be scaled up for HIV infected women.

### **Equal Access to Nutrition**

The high rate of malnutrition among children and women calls for a multidimensional approach to address the intergenerational health impact. It would include awareness on child/women nutrition, food value and food diversity. Together with this, the ongoing iron acid supplementation during pregnancy to cover iron-deficiency anaemia, postpartum vitamin A supplementation, treating intestinal parasites, distribution of albendazole tablets, and vitamin A campaign for children and separate deworming Programme would be strengthened and expanded. Campaign through media on obesity and overweight, and the importance of physical work and healthy food would be undertaken. Ensuring salt iodization through BSTI and compulsory physical exercise in schools are essential. Target specific food fortification for micronutrients would be promoted with local producers. Food security and safety net programmes including the maternal health vouchers and allowance to cover women's/girls' nutritional deficiencies particularly in the calamity/poverty prone areas would be continued and expanded. Promotion and expansion of homestead gardening and poultry in the rural and remote areas particularly amongst the poor introducing climate tolerant varieties will be done to ensure protein and vitamin consumption.

### **Modern Reproductive Health and Family Planning Services**

Counseling on population control and reproductive health and behaviour would be continued and expanded in all health care centres. Community based family planning services would be continued and expanded to cover urban poor women and men. Motivational work in urban slums and remote areas for use of modern contraceptives and availability of modern contraceptives at a low cost especially in remote areas would be ensured.

### **Women's Decision Making Over Reproductive Health**

Information and education is necessary to enhance women's control over their own reproductive health. Counselling services would be made available in all health care centres for men, women and couples.

### **Quality Formal Education**

Education is key to empowerment and formal education is often a precondition for decisions making positions in both public and private sectors. Quality and gender sensitivity of primary and secondary education would be ensured for girls and boys through teachers' education and training, curriculum improvement (including subjects to promote equality and equity by gender, ethnicity, class, physical ability etc.), and introduction of extra-curriculum activities to build confidence and to overcome the limitations in learning outcomes. Transition from primary and completion of secondary education for both boys and girls would be ensured with continued support from poverty focused stipend, free education, books, and so on. Girls' participation at the tertiary level and technical education would be increased through increased community motivation to change social norms on girls' education, providing scholarships, special quota provisions, infrastructure including accommodation, transport, hygienic sanitation for girls and such support. Other actions would include increasing the percentage of women teachers and teachers' training on inclusive education and making the education environment safe for girls.



### **Marketable Technical and Vocational Education Including ICT**

One of the key requirements for employment of women equally with men is marketable education and skills. It is essential to reform the educational curriculum to cater to the needs of the country and the changing global requirements based on labour market analysis and future projections. It should also include measures for proficiency in ICT. Modernization of trade skills education; increasing different language proficiency; hands on training; standardization of courses in consistency with international needs; establishing globally acceptable certification system; and improved qualification of teaching staff are the needs of the day. This is also necessary for professional migration. Market need assessment and adjustment of curriculum should be a regular phenomenon.

### **Safe Water and Sanitation Services**

Easy access to safe water for drinking and household use facilitates women's empowerment by reducing time spent on searching for safe water and thereby allowing them to be engaged in productive endeavours. Access to water and sanitation services is also essential for household health care. It can save the family from additional expenses and women from care services. These services, both at home and in public places would be expanded to facilitate women's participation in economic and political activities. Arsenic and saline screening would be ensured and traditional filtering methods would be disseminated widely. Also water conservation Programme for the Northern region and coastal belt is important to ease water stress and protect from salinity. Arrangement of safe drinking water and accessible toilet facilities would be there for the women and people with disability in rail station, bus stand, and launch terminal.

### **Freedom from Violence**

One of the most prevalent human rights abuses, which has enormous impact on all aspects of women's lives, is violence at home and outside. Multipronged actions are essential to curb violence against women (VAW) including motivation of family, enhancing community support, enforcement of legal provisions, improving women's human capabilities, access to low cost prosecution services and economic self-reliance of women. The ongoing initiatives under the multi-sectoral Programme and institutional mechanisms would be expanded in more areas. It is necessary to take women's safety into account and promote various supports and services, one-stop crisis centre, forensic DNA laboratory, trauma counselling centre, women support centre, 24 hours toll free helpline (10921) for women and children victims of violence under multi-sectoral programmes. However, prevention would be emphasized and women's and community awareness of the economic, social and health impact of VAW would be enhanced. Information and support services for women in accessing legal support, shelter, and counselling would be expanded and support for women's economic self-reliance should continue. Private and public institutions would be instructed to formulate and enforce policies to protect women from sexual abuse at work places/ educational institutions and other public places. Accountability mechanism would be developed and implemented for the law enforcing agency members in addressing VAW.

### **Ending Child Marriage**

Child marriage is prevalent and is a barrier to girls' ability to reach their potential, fulfil their aspirations and contribute to their communities. In Bangladesh 33% girls are already mothers by age 19, posing significant risks to their health as well as the increased probability of children

becoming stunted. This will require action in multiple areas. The existing age at marriage for girls and boys would be strictly enforced. Compulsory registration after birth of a child will be ensured. The revised Child Marriage Restraint Act 2013 would include penal provisions for both guardians and registers. Civil society movements against child marriage would be strengthened, community orientation improved and support for continuation of education at secondary levels will be ensured to eliminate child marriage.

### **Participation in Sports and Culture**

Women's participation in sports and cultural activities would be ensured from school to build self-confidence amongst girls. Extra-curriculum activities would be encouraged and supported in educational institutions and outside.

### **Protection and Development of Differently Able Women**

As almost 10% population is differently able, the upcoming disability survey would identify extent and types of disability disaggregated by sex. Based on the new National Social Security Strategy (NSSS), appropriate social protection measures would be extended and expanded to cover more such persons, especially women. The needs of this group would also be addressed within human development and economic development agenda as well.

### **Enhance Access to and Control Over Productive Resources**

Increased access to and control over productive resources enhances women's self-reliance and income. It is important to enhance women's capacity to enter the labour market for income. Three important areas facilitating income are, job creation; connecting with productive jobs being created or get help to create own jobs in self-employment; and increasing women's productivity of the existing jobs.

### **Short and Long Term Access to Decent and Harassment Free Employment**

Implementation of the growth and employment strategy of the Seventh Plan will create new jobs for the growing labour force. The private sector will be regulated and monitored in enforcing equal wage and benefits for women and men as per Labour laws and the ILO Conventions. The implementation of NSSS will be a major step forward to encourage women participation in the formal work force.

### **Secure Employment in Public and Private Sectors –Domestic and Abroad**

Filling up of the existing vacant positions in the public sector will allow additional employment for a large number of women and men where women with right qualifications may be given preference to increase women's share of employment. Improvements in working conditions are needed to attract more women to the civil service. Recruitment of women; timely promotions, especially at senior levels; addressing safety and security concerns at field levels; gender sensitivity and elimination of discriminatory attitudes among management will enhance women's participation. Institutional weaknesses and constraints should be removed through transparent human resource management functions.

### **Opportunities for Higher-Value Self-Employment**

Self-employment is often a critical avenue to empower women by ensuring economic self-reliance. The large number of micro-finance users, the unemployed school graduates and

dropouts, and the unpaid family labourers are the main groups who will contribute to family and for growth, if they are introduced to simple time saving and green technology, information about markets, source of finance and training. Those opportunities will increase women's participation in non-farm activities. Ensuring support from private sector, NGOs, business associations and media is also important.

### **Financial and Business Development Services for Entrepreneurship**

Women entrepreneurship needs to be supported and entrepreneurs are to be prepared to qualify for institutional finance, they have to be prepared with required paper work, business planning, financial management and such other. Bangladesh Women Chambers of Commerce and Industry and some others are working to develop business capacity of women entrepreneurs and linking them with the banks and PFIs. All chambers and associations would be encouraged to take similar initiatives for entrepreneurs at the district levels. Business incubator services would be expanded by the chambers and associations. Opportunities to participate in trade fairs and higher levels of the value chains would be created. Scope for women at different levels of the value chain of different products would be identified, disseminated and supported with technology and inputs. Ethnic crafts would be promoted.

### **Reduce and Prevent Violence and Sexual Harassment in Workplaces and Public Spheres**

Community orientation and motivation by using communication methods and media would be used to create public opinion against VAW in public places. Steps would be taken to enact legislation to address sexual harassment. Full prosecution of VAW committed at public places will be done and results publicized help curb the offense. Emphasis will be given to orientation on the laws and establishing accountability of the members of law enforcing agencies in implementation and enforcement of the legal provisions.

### **Access to Support Services**

Infrastructure and support services are key to increase women's participation in public spheres. Safe and affordable transport system is necessary to increase women's mobility. The public transport system would be made more frequent, safe and affordable. Public and private transport companies would be encouraged through budgetary incentive to run more buses with reserved seats for women or women only buses during peak period. Employers who employ more women in factories will be provided loan facilities to operate transport services for their women employees. A policy to increase bus services at least for girls' schools and colleges in all cities of the country will be reviewed for implementation. Safety and security (lighting, police patrols, safe toilets, waiting rooms) measures in public transport stations would be a compulsory part of transport management. Road safety would be ensured through enforcement of traffic rules and laws. Cleaning of foot paths, compulsory use of over bridges for road crossing, increased public transports are some other measures to support women's mobility. Training/orientation on the importance of traffic safety would be provided to both public and private service providers using media and also in schools is necessary. Commuter train services between Dhaka and nearby cities, like Narayanganj, Gazipur, Tongi, and Narshingdi would be introduced/increased with ladies compartments at peak hours. Similarly workplace safety and security concerns, child care, housing and toilet facilities, etc. would be addressed by ensuring regulatory provisions with private sectors and also by encouraging private sectors to develop low cost housing and child care facilities.

### **Access to Markets and Productive Assets (land, seeds, fertilizers and extension services)**

The extension services of all the government agencies (livestock, fisheries, agriculture etc.) would take specific measures in reaching women with support for training on technology, market information, production techniques, sources of raw materials, etc. Employing women as extension workers is useful in reaching women and opening new employment opportunities for women. The distribution of seeds and fertilizer through women farmer groups will help grassroots level women who are gradually being responsible for farming. Partnership with NGOs has proven to be effective and should be continued.

### **Increased Ownership of Land and Productive Resources**

The current practice of distribution of khas land in the name of both spouses would continue. Similarly access to forestry resources through women co-management groups would continue and expand. Micro-finance operations need to combine vocational skills, markets, information. Community orientation on giving women due share of their inherited property is often missing, which would be promoted and enforced. In case of river erosion or such disaster induced migration, women would be considered as a special group for housing or land support.

### **Access to, and Decision-Making Over, Community Resources (water body, land, forest)**

Women's participation in accessing and taking decisions regarding community resources would be ensured by provisions of women's participation under the Social Forestry Rules, Water Management Policy, Forestry Sector Policy, WATSAN Policy and so on. Similar practice would be integrated in all relevant sectors. Women's participation in relevant associations and groups would be ensured and monitored.

### **Access to Technology and Information (a2i)**

Access to modern technology related to business and jobs would be expanded at a low cost. Women's access to information related to markets, employment, and production or business opportunities would be increased through using media and ICT. Increased access to mobile phones, internet and radio etc., will help women in accessing information. The a2i to reach young girls should be strengthened and be responsive to the needs of less educated persons.

### **Access to Energy**

Women's expanded access to renewable energy would be ensured in both grid and off-grid areas to facilitate their economic gains as well as conservation of resources. The energy policy would consider and enhance women's access to solar power, bio-gas, improve cookstoves etc. Women's access to rural market corners and such infrastructure have proved to be beneficial and can be expanded in collaboration with the local government institutions (e.g. municipalities, city corporations). Some municipalities have already taken such initiatives in urban areas, and the others should be encouraged.

### **Increase Participation and Decision Making**

#### **Participation in National Politics and Local Government**

Women's participation in national Parliament and local government has increased but the evidence of women raising their voices on behalf of women rights is limited. Women's political

orientation would be enhanced through apprenticeship, training, and campaigns and by establishing support and monitoring mechanisms to increase their participation as contestants in regular seats. Some projects have introduced training of women public representatives and citizens and monitoring of women's role in different committees. Steps should be taken so that these approaches are uniformly practiced. The provisions of RPO 2013 related to women's participation and representation in political parties would be ensured by enforcing it within the registration criteria

### **Strengthened Knowledge and Capability to Participate in Public Sphere**

Training, orientation and knowledge development would be provided to all women employed in the public sector. The capacity of the existing training institutions would be increased with experienced faculty and other resources in the area of gender mainstreaming to both women and men. Leadership training and performance monitoring against defined results would be available to women on a priority basis.

### **Representation or Leadership in Public Institutions, Business and Trade**

Women's representation together with appropriate training and capacity building support would be institutionalized in public institutions. Private sector institutions and trade bodies would also be instructed to develop their own gender strategies and ensure more women's representation at different levels. It could be considered as criteria for qualifying for different incentives by the private sector. Women's participation in delegations and committees for trade and other important negotiations and development initiatives would be made mandatory and private sector to be encouraged /incentivised to have women on the Boards. Such legislation might also be considered.

### **Enforcement of Targets for Women's Representation at all Levels**

The existing quota provisions for women's representation in different services will be enforced and/or increased by taking specific measures, especially as the availability of qualified women increases with improvements in women's educational attainments. Also an assessment of the quota provisions for different groups, the performance of these groups and, future possibilities would be considered.

### **Membership and Leadership in Associations and Decision Making Forums**

Memberships in different sectoral committees and associations would be enforced, such as in, water management associations, sanitation committees, water supply committees, which are formed as per the policies/rules for sectoral ministries and agencies. Similar initiatives by others sectors are necessary. This would be supported by clear TOR and orientation and training for women on their roles in such bodies as well as orientation of their male counterparts.

### **Establish Conducive Legal and Regulatory Environment**

#### **Removal of all Discriminatory Provisions in all Laws and Policies**

Some laws and policies are yet to incorporate provisions to ensure women's participation and equal rights and these need review and revision. Some of the laws, such as the Citizenship Act 2009 is still to ensure equal rights of both spouses in ensuring citizenship of spouse of foreign nationality and need to be revised. As another example, the Renewable Energy Policy of

Bangladesh did not consider participation or benefit of women though women are involved, which would be reviewed to integrate women's perspectives and benefits. Also, punitive and discriminatory laws and policies related to HIV response need to be addressed for an enabling legal environment for access to HIV services. It is essential that all sectoral policies are also reviewed from a gender lens in order to make them more conducive to women's participation and empowerment. MOWCA's capacity would be improved to provide technical support to line ministries in reviewing such laws. Partnership with women groups would be promoted for this.

### **All Laws Effectively Enforced to Uphold Rights of Women and Girls**

The enforcement of the legal and policy provisions would be ensured through establishing effective mechanisms and accountability. Some good practice examples are available in other countries, which include, independent Commission on Women, Oversight of Human Rights Commission and Audit Commissions, which may be considered for adaptation. Women's access to the legal system would be ensured through expansion of support from Legal Aid Fund, simplification of legal procedures, removal of discriminatory procedures and retention of legal practitioners to support poor women. Capacity of judiciary and law enforcement agencies to deal with such cases would be strengthened. A separate tribunal for dealing with human trafficking cases would be formed.

### **Rights of the Girl Child Recognized and Upheld in Laws and Policies**

Girls as a distinct group would be recognized and their rights and advancement would be upheld in all relevant policies and laws. All new laws and policies would be reviewed by the Ministry of Women and Children's Affairs (MOWCA) before their approval and enactment. Partnership with child rights groups would be promoted for the purpose.

### **Accountability of Law Enforcers**

A transparent accountability mechanism for the law enforcing agencies would be in place so that they are accountable to take action fast on offences related to VAW and women's human rights. Additionally, human resources for the agencies would be provided sufficient orientation and training to make them gender sensitive.

### **Social Protection Addressing Gender Inequalities and Gender Dimensions of Poverty and Shocks**

The new NSSS is designed to addressing the specific concerns and vulnerabilities of women at different stages of the life cycle. So its sound implementation will be an essential complement to addressing gender-specific life cycle risks. The introduction of the proposed social insurance is particularly important mitigation measure for risks faced working women.

There are many strategic Directions and Policy Frameworks are taken under the Seventh Five Year Plan. The key drivers are mentioned below:

#### **Macroeconomic Perspective:**

- Strategies for Promoting Pro-Poor and Inclusive Growth;
- Medium Term Macro Economic Frame Work;
- Poverty and Inequality Reduction Strategy;
- Public Investment Programme and Its Finance;
- Monitoring and Evaluation;

### Sector Development Strategies:

- General Public Services
- Public Order and Safety (Strengthening Public Administration, Public Institutions and Governance)
- Industrial and Economic Services (Strategy for Manufacturing Sector Development With Export Led Growth; Strategy For Boosting the Services Sector)
- Agriculture (Strategy For Agriculture and Water Resources)
- Power and Energy (Power and Energy Development Strategy)
- Transport and Communication (Transport and Communication Development Strategy)
- Local Government and Rural Development (Strategy for Local Government and Rural Development)
- Environment and Climate Change (Sustainable Development: Environment and Climate Change)
- Housing and Community Amenities (Urbanization Strategy)
- Health, Nutrition and Population Development Strategy
- Education and Technology (Education Sector Development Strategy; Digital Bangladesh and Information Communications Technology (ICT))
- Recreation, Culture and Religion (Role of Sports, Culture and Religion in Human Resource Development)
- Social Protection (Social Protection, Social Welfare and Social Inclusion:
  1. Disaster Management
    - Disaster Management Context for Bangladesh;
    - Disaster Management Framework and Key Policies/Programmes;
    - Activities Under the 7<sup>th</sup> FYP for Disaster Management;
  2. Gender Equality

Among all of these strategic Directions and Policy Frameworks I observed ‘Environment and Climate Change (Sustainable Development: Environment and Climate Change)’, ‘Disaster Management’, ‘Gender Equality’ chapters from Sector Development Strategies as relevant to my thesis topic.

### **Sustainable Development: Environment and Climate Change**

According to Stern, N. (2006), "Stern Review on the Economics of Climate Change: Executive Summary", HM Treasury, London, climate change has become a serious global threat. Policymakers have increasingly acknowledged the noted warnings with sincere interest. Intergovernmental Panel on Climate Change (IPCC) has already noted that Bangladesh will be among the worst victims due to climate change.

On climate change, Bangladesh Climate Change Strategy and Action Plan (BCCSAP) was formulated for adaptation and low carbon development (LCD) through the engagement of various stakeholders. With support from the United Nations Environment Programme (UNEP), the National Sustainable Development Strategy (NSDS) has been prepared to meet the formidable environmental challenges that Bangladesh faces on the path to development. It identifies Environment, Natural Resource and Disaster Management as one of the strategic priority areas and articulates a wide variety of actions needed for sustainable development.

Seventh Plan will also incorporate a Green Growth strategy to harmonize economic growth for better environmental sustainability.

This five year plan's articulation of a sustainable development strategy involves a large array of actions under three key themes:

- (i) Climate Change Management and Resilience (comprised of adaptation and mitigation)
- (ii) Environmental Management; and
- (iii) Disaster Management

These actions are aligned with the overall framework and strategies of National Sustainable Development Strategy (NSDS), and are broadly consistent with the scope of the post-2015 SDGs. Some of the objectives and activities that were considered under the Sixth Plan but were not addressed or implemented have also found consideration under Seventh Plan, provided they have an instrumental role in aiding the key objectives of the Plan.

This plan depicts climate change leads to environmental impacts such as sea surface warming, natural disasters and disruptions in rain pattern. Food security is threatened along with the livelihood of people affected by climate change. The consequences named 'Poverty and Inequity', and 'Gender sensitivity to disasters and climate change' of climate change are elaborated below

- Poverty and Inequity: The extreme poor and women will be faced with the most serious challenges due to adverse impacts of climate change. Poverty eradication for the poor will be hindered as they are disproportionately affected by events of climate change.
- Gender sensitivity to disasters and climate change: Climate change affects women more than men. Following natural disasters, women more than men are often subject to excruciating circumstances. For instance, girls are discriminated and marginalized by forcing them to drop out of school to help with household chores. They also have to cope with less food and water intake in the event of a disaster. Patriarchal norms and practices put women and girls in a vulnerable state, which intensifies during climate induced disasters.

Seventh Plan will promote studies looking into violence against women in programmes and policies.

### **Disaster Management Context for Bangladesh**

The country is exposed to severe environmental hazards like river erosion, cyclones, droughts, tornadoes, cold waves, etc. In addition to conventional hazards, emerging issues like climate change and salinity pose further challenges. These disasters not only lead to loss of lives and livelihood, but also have a bearing on economic development and sustenance. Moreover, some argue that often more than 1% of GDP is lost annually for disasters, and climate change impacts are likely to exacerbate the disaster scenario in the country. Although the magnitude of these changes may appear to be small, they could substantially increase the frequency and intensity of existing climatic events (floods, droughts, cyclones etc.). Impacts of climate change are visible in Bangladesh in the form of temperature extremes, erratic rainfalls and increased number of intensified floods, droughts prevalence of rough weather in the Bay.

The Ministry of Disaster Management and Relief is mandated to drive national risk reduction reform programmes to address the disaster management issues. It strives to fulfil the Government's vision to reduce the risk of people, especially the poor and the disadvantaged, from the effects of natural, environmental and human induced disasters/hazards to a manageable



and acceptable humanitarian level and to have in place an efficient emergency response management system. In order to create a legal basis in the area of disaster management, the Disaster Management Act has been passed in 2012 by the government. The Act facilitates a more coordinated, objective driven and strong disaster management system.

This Plan indicates that women tend to be more concerned with the impacts of climate change relative to men. Regardless of age and income, the sources and levels of emissions of women differ substantially from those of men. Women are also the major consumers of energy in rural areas as they are responsible for gathering fuel for domestic purposes such as cooking and heating. Full introduction of improved cook stove all over the country will be the best option in this respect. Mitigation policies need to address gender issues in order to promote renewable energy and reduce emissions.

The seventh five year plan also points out that although women are key contributors to disaster management, policies and programmes are not designed or delivered through an analysis of gender needs. Inclusion of persons with disabilities, children and women is also lacking in the current framework that needs to pay special attention to address vulnerabilities of the most vulnerable sections of communities at risk.

### Gender Equality

The Sixth Plan called for a two-pronged approach for empowering women and ending gender based discrimination. First, gender will be mainstreamed into all sectoral interventions. Second efforts will be taken to remove all biases against women in society but also in policies, programmes, institutions.

The strategies adopted in the Sixth Plan to improve women's empowerment and social participation consisted of:

- Political and legal empowerment will be ensured by-
  - iii. addressing women's advancement and rights issues taking into account the Constitution of the People's Republic of Bangladesh and other commitments to international forums and
  - iv. ensuring participation and representation of women in all national and local political institutions.
- Economic empowerment will be addressed by-
  - iv. increasing and improving the opportunities for women's employment;
  - v. providing an enabling work environment; and
  - vi. strengthening women's economic decision making power by promoting women producers, women trade unions and women entrepreneurs .
- Social empowerment requires-
  - vi. eliminating gender health and education disparities,
  - vii. prioritizing women in social programmes, loans and microcredit,
  - viii. eliminating violence against women through adequate reporting of incidents, and medical, legal and psychological treatment,
  - ix. recognizing the multitude of social identities women can have: ethnic, religious, wealth groups, disabilities and taking it into account when formulating policies and programmes to address their needs and
  - x. promoting women's statuses through media.

A set of targets were articulated to monitor the extent to which gender equality and women empowerment has been achieved during the plan's execution.

Through the multitude of new laws noted above, the Government is trying hard to change the socio-cultural norms that may hinder women's status and empowerment within the society through adopting laws to ban child marriage, acid throwing, violence against women, eve teasing, dowry etc. The Domestic Violence (Prevention and Protection) Act of 2010 was passed in accordance to international commitments to enable women to file legal complaints against all form of domestic violence. The act provides a very wide definition of domestic violence which includes not only physical and sexual abuse, but also psychological (harassment, controlling behaviour and verbal abuse) as well as economic abuse (forceful deprivation of financial and economic resources). Another project that has been executed to eliminate violence against women is the third phase of the Multi-Sectoral Programme on Violence against Women, implemented jointly by the Government of Bangladesh and the Government of Denmark. Eve teasing is a serious offense in Bangladesh with adequate legal and social sanctions.

Other projects and programmes have been implemented to protect and empower women. Amongst these the "Multipurpose Rehabilitation Centre for Destitute Age-Old People and Socially Disabled Adolescent Girls" project, to rehabilitate elderly women and disabled girls through skill training and the "Bangladesh Mohila Samity Complex Building for the Underprivileged Women in the Society" to create a space for undertaking women development programmes in a safe and proper environment. The Government has carried out various initiatives to help promote women employment and their economic empowerment. Training centres have been established to provide women with different income generating skills (e.g. ICT, entrepreneurial, food processing).

Finally, steps have also been taken to incorporate gender dimensions in the formal budgeting process. In 2005, the GoB introduced Gender Responsive Budgeting (GRB) in an effort to mainstream gender issues at all policies and decision making levels. In FY2013, 25 of the ministries were undergoing GRB.

### **Main Streaming Risk Reduction – The Strategies**

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

#### Advocacy

Awareness rising among political, senior policy and government department officials, media and academic institutions is a priority strategy for building knowledge and understanding on the benefits of risk reduction and the roles these organizations play in implementing risk reduction programmes.

#### Policy and Planning Reform

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

#### Capacity Building

This strategy has targeted a complete review of the roles and responsibilities of disaster management committees (DMCs) at all levels to ensure they reflect risk reduction as well as

emergency that committees receive capacity building training to ensure they understand and can fulfill their functions effectively.

Planning Frameworks

Disaster management planning at all levels is being significantly over hauled to ensure that DMC plans accommodate risk reduction mainstreaming at all levels.

Uniform CRA Guidelines

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

**Development Resource Allocation in the 7<sup>th</sup> Plan**

Poverty reduction, income inequality, gender equality, social inclusion and social protection are all cross-cutting themes and involve a range of Ministries in delivering related activities. Total resources required for implementing the underlying strategies are also not easy to identify due to the cross-cutting and over-arching nature of these themes. In the case of social protection, the Government provides a separate allocation, mostly from the current budget, that has amounted to about 2.0% of GDP during the Sixth Plan. There was an expectation that this allocation will grow to 3.0% of GDP by the end of the Sixth Plan. This was not possible owing to resource constraint. For the Seventh Plan, the top most priority is to implement the NSSS. However, the Seventh Plan also projects to increase the average spending on social protection from 2.0% of GDP to 2.3%.

Against the backdrop of the above, there are some specialized line Ministries that oversee and provide specific services to support gender equality, social inclusion and social protection. These are: The Ministry of Social welfare; the Ministry of Women and Children Affairs; Ministry of Disaster Management and Relief; and the Ministry of Liberation War Affairs. The development budget allocations for these ministries in constant (FY2016) prices and in current prices are shown in Tables given below.

Seventh Plan ADP Allocations for Social Protection (Taka billion, FY2015/16 prices)					
Ministry	FY2016	FY2017	FY2018	FY2019	FY2020
Ministry of Social Welfare Source	2.0	6.5	7.5	8.4	9.6
Ministry of Women and Children Affairs	1.5	3.7	4.2	4.7	5.2
Ministry of Liberation War Affairs	4.4	4.3	4.9	5.4	6.1
Ministry of Food	6.3	8.6	9.7	10.7	12.0
Ministry of	23.3	24.0	27.0	30.1	33.6

Disaster Management and Relief					
Sector Total	37.5	47.1	53.3	59.4	66.6

Table 7 Seventh Plan ADP Allocations for Social Protection; [Source: Seventh Plan projections]

## 19. Sendai Framework for Disaster Risk Reduction 2015 – 2030

The Sendai Framework for Disaster Risk Reduction 2015–2030 was adopted at the Third United Nations World Conference on Disaster Risk Reduction, held from 14 to 18 March 2015 in Sendai, Miyagi, Japan, which represented a unique opportunity for countries:

- a) To adopt a concise, focused, forward-looking and action-oriented post 2015 framework for disaster risk reduction;
- b) To complete the assessment and review of the implementation of the Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters;
- c) To consider the experience gained through the regional and national strategies/ institutions and plans for disaster risk reduction and their recommendations, as well as relevant regional agreements for the implementation of the Hyogo Framework for Action;
- d) To identify modalities of cooperation based on commitments to implement a post 2015 framework for disaster risk reduction;
- e) To determine modalities for the periodic review of the implementation of a post 2015 framework for disaster risk reduction.

During the World Conference, States also reiterated their commitment to address disaster risk reduction and the building of resilience to disasters with a renewed sense of urgency within the context of sustainable development and poverty eradication, and to integrate, as appropriate, both disaster risk reduction and the building of resilience into policies, plans, programmes and budgets at all levels and to consider both within relevant frameworks.

### Hyogo Framework for Action: Lessons Learned, Gaps Identified and Future Challenges

Since the adoption of the Hyogo Framework for Action in 2005, as documented in national and regional progress reports on its implementation as well as in other global reports, progress has been achieved in reducing disaster risk at local, national, regional and global levels by countries and other relevant stakeholders, leading to a decrease in mortality in the case of some hazards. Reducing disaster risk is a cost-effective investment in preventing future losses. Effective disaster risk management contributes to sustainable development. Countries have enhanced their capacities in disaster risk management. International mechanisms for strategic advice, coordination and partnership development for disaster risk reduction, such as the Global Platform for Disaster Risk Reduction and the regional platforms for disaster risk reduction, as well as other relevant international and regional forums for cooperation, have been instrumental in the development of policies and strategies and the advancement of knowledge and mutual learning. Overall, the Hyogo Framework for Action has been an important instrument for raising public and institutional awareness, generating political commitment and focusing and catalysing actions by a wide range of stakeholders at all levels.

Over the same 10 year time frame, however, disasters have continued to exact a heavy toll and, as a result, the well-being and safety of persons, communities and countries as a whole have been

affected. Over 700 thousand people have lost their lives, over 1.4 million have been injured and approximately 23 million have been made homeless as a result of disasters. Overall, more than 1.5 billion people have been affected by disasters in various ways, with women, children and people in vulnerable situations disproportionately affected. The total economic loss was more than \$1.3 trillion. In addition, between 2008 and 2012, 144 million people were displaced by disasters. Disasters, many of which are exacerbated by climate change and which are increasing in frequency and intensity, significantly impede progress towards sustainable development. Evidence indicates that exposure of persons and assets in all countries has increased faster than vulnerability<sup>4</sup> has decreased, thus generating new risks and a steady rise in disaster related losses, with a significant economic, social, health, cultural and environmental impact in the short, medium and long term, especially at the local and community levels. Recurring small-scale disasters and slow-onset disasters particularly affect communities, households and small and medium-sized enterprises, constituting a high percentage of all losses. All countries – especially developing countries, where the mortality and economic losses from disasters are disproportionately higher – are faced with increasing levels of possible hidden costs and challenges in order to meet financial and other obligations.

It is urgent and critical to anticipate, plan for and reduce disaster risk in order to more effectively protect persons, communities and countries, their livelihoods, health, cultural heritage, socioeconomic assets and ecosystems, and thus strengthen their resilience.

Enhanced work to reduce exposure and vulnerability, thus preventing the creation of new disaster risks, and accountability for disaster risk creation are needed at all levels. More dedicated action needs to be focused on tackling underlying disaster risk drivers, such as the consequences of poverty and inequality, climate change and variability, unplanned and rapid urbanization, poor land management and compounding factors such as demographic change, weak institutional arrangements, non-risk-informed policies, lack of regulation and incentives for private disaster risk reduction investment, complex supply chains, limited availability of technology, unsustainable uses of natural resources, declining ecosystems, pandemics and epidemics. Moreover, it is necessary to continue strengthening good governance in disaster risk reduction strategies at the national, regional and global levels and improving preparedness and national coordination for disaster response, rehabilitation and reconstruction, and to use post-disaster recovery and reconstruction to “Build Back Better”, supported by strengthened modalities of international cooperation.

There has to be a broader and a more people-centred preventive approach to disaster risk. Disaster risk reduction practices need to be multi-hazard and multisectoral, inclusive and accessible in order to be efficient and effective. While recognizing their leading, regulatory and coordination role, Governments should engage with relevant stakeholders, including women, children and youth, persons with disabilities, poor people, migrants, indigenous peoples, volunteers, the community of practitioners and older persons in the design and implementation of policies, plans and standards. There is a need for the public and private sectors and civil society organizations, as well as academia and scientific and research institutions, to work more closely together and to create opportunities for collaboration, and for businesses to integrate disaster risk into their management practices.

International, regional, sub regional and transboundary cooperation remains pivotal in supporting the efforts of States, their national and local authorities, as well as communities and businesses,

to reduce disaster risk. Existing mechanisms may require strengthening in order to provide effective support and achieve better implementation. Developing countries, in particular the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges, need special attention and support to augment domestic resources and capabilities through bilateral and multilateral channels in order to ensure adequate, sustainable, and timely means of implementation in capacity-building, financial and technical assistance and technology transfer, in accordance with international commitments.

Overall, the Hyogo Framework for Action has provided critical guidance in efforts to reduce disaster risk and has contributed to the progress towards the achievement of the Millennium Development Goals. Its implementation has, however, highlighted a number of gaps in addressing the underlying disaster risk factors, in the formulation of goals and priorities for action, [ *The Hyogo Framework priorities for action 2005-2015 are: (1) ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation; (2) identify, assess and monitor disaster risks and enhance early warning; (3) use knowledge, innovation and education to build a culture of safety and resilience at all levels; (4) reduce the underlying risk factors; and (5) strengthen disaster preparedness for effective response at all levels*] in the need to foster disaster resilience at all levels and in ensuring adequate means of implementation. The gaps indicate a need to develop an action-oriented framework that Governments and relevant stakeholders can implement in a supportive and complementary manner, and which helps to identify disaster risks to be managed and guides investment to improve resilience.

Ten years after the adoption of the Hyogo Framework for Action, disasters continue to undermine efforts to achieve sustainable development.

The intergovernmental negotiations on the post 2015 development agenda, financing for development, climate change and disaster risk reduction provide the international community with a unique opportunity to enhance coherence across policies, institutions, goals, indicators and measurement systems for implementation, while respecting the respective mandates. Ensuring credible links, as appropriate, between these processes will contribute to building resilience and achieving the global goal of eradicating poverty.

It is recalled that the outcome document of the United Nations Conference on Sustainable Development, held in 2012, entitled “The future we want” called for disaster risk reduction and the building of resilience to disasters to be addressed with a renewed sense of urgency in the context of sustainable development and poverty eradication and, as appropriate, to be integrated at all levels. The Conference also reaffirmed all the principles of the Rio Declaration on Environment and Development.<sup>1</sup>

Addressing climate change as one of the drivers of disaster risk, while respecting the mandate of the United Nations Framework Convention on Climate Change, [ *The climate change issues*

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<sup>1</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex I.

*mentioned in this Framework remain within the mandate of the United Nations Framework Convention on Climate Change under the competences of the Parties to the Convention]* represents an opportunity to reduce disaster risk in a meaningful and coherent manner throughout the interrelated intergovernmental processes.

Against this background, and in order to reduce disaster risk, there is a need to address existing challenges and prepare for future ones by focusing on monitoring, assessing and understanding disaster risk and sharing such information and on how it is created; strengthening disaster risk governance and coordination across relevant institutions and sectors and the full and meaningful participation of relevant stakeholders at appropriate levels; investing in the economic, social, health, cultural and educational resilience of persons, communities and countries and the environment, as well as through technology and research; and enhancing multi-hazard early warning systems, preparedness, response, recovery, rehabilitation and reconstruction. To complement national action and capacity, there is a need to enhance international cooperation between developed and developing countries and between States and international organizations. The present Framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by natural or man-made hazards, as well as related environmental, technological and biological hazards and risks. It aims to guide the multihazard management of disaster risk in development at all levels as well as within and across all sectors.

### **Expected Outcome and Goal**

16. While some progress in building resilience and reducing losses and damages has been achieved, a substantial reduction of disaster risk requires perseverance and persistence, with a more explicit focus on people and their health and livelihoods, and regular follow-up. Building on the Hyogo Framework for Action, the present Framework aims to achieve the following outcome over the next 15 years:

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

The realization of this outcome requires the strong commitment and involvement of political leadership in every country at all levels in the implementation and follow-up of the present Framework and in the creation of the necessary conducive and enabling environment.

To attain the expected outcome, the following goal must be pursued:

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.

The pursuance of this goal requires the enhancement of the implementation capacity and capability of developing countries, in particular the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle income countries facing specific challenges, including the mobilization of support through international cooperation for the provision of means of implementation in accordance with their national priorities.

To support the assessment of global progress in achieving the outcome and goal of the present Framework, seven global targets have been agreed. These targets will be measured at the global level and will be complemented by work to develop appropriate indicators. National targets and indicators will contribute to the achievement of the outcome and goal of the present Framework.

The seven global targets are:

- a) Substantially reduce global disaster mortality by 2030, aiming to lower the average per 100,000 global mortality rate in the decade 2020–2030 compared to the period 2005–2015;
- b) Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 in the decade 2020–2030 compared to the period 2005–2015;<sup>2</sup>
- c) Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030;
- d) Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030;
- e) Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020;
- f) Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030;
- g) Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

### **Guiding Principles**

Drawing from the principles contained in the Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and its Plan of Action [A/CONF.172/9, chap. I, resolution I, annex I] and the Hyogo Framework for Action, the implementation of the present Framework will be guided by the following principles, while taking into account national circumstances, and consistent with domestic laws as well as international obligations and commitments:

- a) Each State has the primary responsibility to prevent and reduce disaster risk, including through international, regional, subregional, transboundary and bilateral cooperation. The reduction of disaster risk is a common concern for all States and the extent to which developing countries are able to effectively enhance and implement national disaster risk reduction policies and measures in the context of their respective circumstances and capabilities can be further enhanced through the provision of sustainable international cooperation;
- b) Disaster risk reduction requires that responsibilities be shared by central Governments and relevant national authorities, sectors and stakeholders, as appropriate to their national circumstances and systems of governance;

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<sup>2</sup> Categories of affected people will be elaborated in the process for post-Sendai work decided by the Conference



- c) Managing the risk of disasters is aimed at protecting persons and their property, health, livelihoods and productive assets, as well as cultural and environmental assets, while promoting and protecting all human rights, including the right to development;
- d) Disaster risk reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible and non discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest. A gender, age, disability and cultural perspective should be integrated in all policies and practices, and women and youth leadership should be promoted. In this context, special attention should be paid to the improvement of organized voluntary work of citizens;
- e) Disaster risk reduction and management depends on coordination mechanisms within and across sectors and with relevant stakeholders at all levels, and it requires the full engagement of all State institutions of an executive and legislative nature at national and local levels and a clear articulation of responsibilities across public and private stakeholders, including business and academia, to ensure mutual outreach, partnership, complementarity in roles and accountability and follow-up;
- f) While the enabling, guiding and coordinating role of national and federal State Governments remain essential, it is necessary to empower local authorities and local communities to reduce disaster risk, including through resources, incentives and decision-making responsibilities, as appropriate;
- g) Disaster risk reduction requires a multi-hazard approach and inclusive risk-informed decision-making based on the open exchange and dissemination of disaggregated data, including by sex, age and disability, as well as on easily accessible, up-to-date, comprehensible, science-based, non-sensitive risk information, complemented by traditional knowledge;
- h) The development, strengthening and implementation of relevant policies, plans, practices and mechanisms need to aim at coherence, as appropriate, across sustainable development and growth, food security, health and safety, climate change and variability, environmental management and disaster risk reduction agendas. Disaster risk reduction is essential to achieve sustainable development;
- i) While the drivers of disaster risk may be local, national, regional or global in scope, disaster risks have local and specific characteristics that must be understood for the determination of measures to reduce disaster risk;
- j) Addressing underlying disaster risk factors through disaster risk-informed public and private investments is more cost-effective than primary reliance on post-disaster response and recovery, and contributes to sustainable development;
- k) In the post-disaster recovery, rehabilitation and reconstruction phase, it is critical to prevent the creation of and to reduce disaster risk by “Building Back Better” and increasing public education and awareness of disaster risk;
- l) An effective and meaningful global partnership and the further strengthening of international cooperation, including the fulfilment of respective commitments of official development assistance by developed countries, are essential for effective disaster risk management;
- m) Developing countries, in particular the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income and other countries facing specific disaster risk challenges, need adequate, sustainable

and timely provision of support, including through finance, technology transfer and capacitybuilding from developed countries and partners tailored to their needs and priorities, as identified by them.

### **Priorities for Action**

Taking into account the experience gained through the implementation of the Hyogo Framework for Action, and in pursuance of the expected outcome and goal, there is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas:

Priority 1: Understanding disaster risk.

Priority 2: Strengthening disaster risk governance to manage disaster risk.

Priority 3: Investing in disaster risk reduction for resilience.

Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

In their approach to disaster risk reduction, States, regional and international organizations and other relevant stakeholders should take into consideration the key activities listed under each of these four priorities and should implement them, as appropriate, taking into consideration respective capacities and capabilities, in line with national laws and regulations.

In the context of increasing global interdependence, concerted international cooperation, an enabling international environment and means of implementation are needed to stimulate and contribute to developing the knowledge, capacities and motivation for disaster risk reduction at all levels, in particular for developing countries.

#### *Priority 1: Understanding Disaster Risk*

Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be leveraged for the purpose of pre-disaster risk assessment, for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters.

#### *National and Local Levels*

- To promote the collection, analysis, management and use of relevant data and practical information and ensure its dissemination, taking into account the needs of different categories of users, as appropriate;
- To encourage the use of and strengthening of baselines and periodically assess disaster risks, vulnerability, capacity, exposure, hazard characteristics and their possible sequential effects at the relevant social and spatial scale on ecosystems, in line with national circumstances;
- To develop, periodically update and disseminate, as appropriate, location-based disaster risk information, including risk maps, to decision makers, the general public and communities at risk of exposure to disaster in an appropriate format by using, as applicable, geospatial information technology;
- To systematically evaluate, record, share and publicly account for disaster losses and understand the economic, social, health, education, environmental and cultural heritage impacts, as appropriate, in the context of event-specific hazard-exposure and vulnerability information;

- To make non-sensitive hazard-exposure, vulnerability, risk, disaster and loss-disaggregated information freely available and accessible, as appropriate;
- To promote real time access to reliable data, make use of space and in situ information, including geographic information systems (GIS), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data;
- To build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector, through sharing experiences, lessons learned, good practices and training and education on disaster risk reduction, including the use of existing training and education mechanisms and peer learning;
- To promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers in order to facilitate a science policy interface for effective decision-making in disaster risk management;
- To ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge in disaster risk assessment and the development and implementation of policies, strategies, plans and programmes of specific sectors, with a cross-sectoral approach, which should be tailored to localities and to the context;
- To strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge and to develop and apply methodologies and models to assess disaster risks, vulnerabilities and exposure to all hazards;
- To promote investments in innovation and technology development in long-term, multihazard and solution-driven research in disaster risk management to address gaps, obstacles, interdependencies and social, economic, educational and environmental challenges and disaster risks;
- To promote the incorporation of disaster risk knowledge, including disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in formal and non-formal education, as well as in civic education at all levels, as well as in professional education and training;
- To promote national strategies to strengthen public education and awareness in disaster risk reduction, including disaster risk information and knowledge, through campaigns, social media and community mobilization, taking into account specific audiences and their needs;
- To apply risk information in all its dimensions of vulnerability, capacity and exposure of persons, communities, countries and assets, as well as hazard characteristics, to develop and implement disaster risk reduction policies;
- To enhance collaboration among people at the local level to disseminate disaster risk information through the involvement of community-based organizations and nongovernmental organizations.

#### *Global and Regional Levels*

- a. To enhance the development and dissemination of science-based methodologies and tools to record and share disaster losses and relevant disaggregated data and statistics, as well as to strengthen disaster risk modelling, assessment, mapping, monitoring and multi hazard early warning systems;

- b. To promote the conduct of comprehensive surveys on multi-hazard disaster risks and the development of regional disaster risk assessments and maps, including climate change scenarios;
- c. To promote and enhance, through international cooperation, including technology transfer, access to and the sharing and use of non-sensitive data and information, as appropriate, communications and geospatial and space-based technologies and related services; maintain and strengthen in situ and remotely-sensed earth and climate observations; and strengthen the utilization of media, including social media, traditional media, big data and mobile phone networks, to support national measures for successful disaster risk communication, as appropriate and in accordance with national laws;
- d. To promote common efforts in partnership with the scientific and technological community, academia and the private sector to establish, disseminate and share good practices internationally;
- e. To support the development of local, national, regional and global user-friendly systems and services for the exchange of information on good practices, cost-effective and easy-to-use disaster risk reduction technologies and lessons learned on policies, plans and measures for disaster risk reduction;
- f. To develop effective global and regional campaigns as instruments for public awareness and education, building on the existing ones (for example, the “One million safe schools and hospitals” initiative; the “Making Cities Resilient: My city is getting ready” campaign; the United Nations Sasakawa Award for Disaster Risk Reduction; and the annual United Nations International Day for Disaster Reduction), to promote a culture of disaster prevention, resilience and responsible citizenship, generate understanding of disaster risk, support mutual learning and share experiences; and encourage public and private stakeholders to actively engage in such initiatives and to develop new ones at the local, national, regional and global levels;
- g. To enhance the scientific and technical work on disaster risk reduction and its mobilization through the coordination of existing networks and scientific research institutions at all levels and in all regions, with the support of the United Nations Office for Disaster Risk Reduction Scientific and Technical Advisory Group, in order to strengthen the evidencebase in support of the implementation of the present Framework; promote scientific research on disaster risk patterns, causes and effects; disseminate risk information with the best use of geospatial information technology; provide guidance on methodologies and standards for risk assessments, disaster risk modelling and the use of data; identify research and technology gaps and set recommendations for research priority areas in disaster risk reduction; promote and support the availability and application of science and technology to decision-making; contribute to the update of the publication entitled “2009 UNISDR Terminology on Disaster Risk Reduction”; use post-disaster reviews as opportunities to enhance learning and public policy; and disseminate studies;
- h. To encourage the availability of copyrighted and patented materials, including through negotiated concessions, as appropriate;
- i. To enhance access to and support for innovation and technology, as well as in long-term, multi-hazard and solution-driven research and development in the field of disaster risk management.

### Priority 2: Strengthening Disaster Risk Governance to Manage Disaster Risk

Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk. Clear vision, plans, competence, guidance and coordination within and across sectors, as well as participation of relevant stakeholders, are needed. Strengthening disaster risk governance for prevention, mitigation, preparedness, response, recovery and rehabilitation is therefore necessary and fosters collaboration and partnership across mechanisms and institutions for the implementation of instruments relevant to disaster risk reduction and sustainable development.

#### *National and Local Levels*

- a. To mainstream and integrate disaster risk reduction within and across all sectors and review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies, which, by defining roles and responsibilities, guide the public and private sectors in:
  - (i) addressing disaster risk in publically owned, managed or regulated services and infrastructures;
  - (ii) (ii) promoting and providing incentives, as relevant, for actions by persons, households, communities and businesses;
  - (iii) (iii) enhancing relevant mechanisms and initiatives for disaster risk transparency, which may include financial incentives, public awareness-raising and training initiatives, reporting requirements and legal and administrative measures; and
  - (iv) (iv) putting in place coordination and organizational structures;
- b. To adopt and implement national and local disaster risk reduction strategies and plans, across different timescales, with targets, indicators and time frames, aimed at preventing the creation of risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience;
- c. To carry out an assessment of the technical, financial and administrative disaster risk management capacity to deal with the identified risks at the local and national levels;
- d. To encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with the existing safety-enhancing provisions of sectoral laws and regulations, including those addressing land use and urban planning, building codes, environmental and resource management and health and safety standards, and update them, where needed, to ensure an adequate focus on disaster risk management;
- e. To develop and strengthen, as appropriate, mechanisms to follow up, periodically assess and publicly report on progress on national and local plans; and promote public scrutiny and encourage institutional debates, including by parliamentarians and other relevant officials, on progress reports of local and national plans for disaster risk reduction;
- f. To assign, as appropriate, clear roles and tasks to community representatives within disaster risk management institutions and processes and decision-making through relevant legal frameworks, and undertake comprehensive public and community consultations during the development of such laws and regulations to support their implementation;
- g. To establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels, such as national and local platforms for

disaster risk reduction, and a designated national focal point for implementing the Sendai Framework for Disaster Risk Reduction 2015–2030. It is necessary for such mechanisms to have a strong foundation in national institutional frameworks with clearly assigned responsibilities and authority to, inter alia, identify sectoral and multisectoral disaster risk, build awareness and knowledge of disaster risk through sharing and dissemination of non-sensitive disaster risk information and data, contribute to and coordinate reports on local and national disaster risk, coordinate public awareness campaigns on disaster risk, facilitate and support local multisectoral cooperation (e.g. among local governments) and contribute to the determination of and reporting on national and local disaster risk management plans and all policies relevant for disaster risk management. These responsibilities should be established through laws, regulations, standards and procedures;

- h. To empower local authorities, as appropriate, through regulatory and financial means to work and coordinate with civil society, communities and indigenous peoples and migrants in disaster risk management at the local level;
- i. To encourage parliamentarians to support the implementation of disaster risk reduction by developing new or amending relevant legislation and setting budget allocations;
- j. To promote the development of quality standards, such as certifications and awards for disaster risk management, with the participation of the private sector, civil society, professional associations, scientific organizations and the United Nations;
- k. To formulate public policies, where applicable, aimed at addressing the issues of prevention or relocation, where possible, of human settlements in disaster risk-prone zones, subject to national law and legal systems.

#### *Global and Regional Levels*

- a. To guide action at the regional level through agreed regional and subregional strategies and mechanisms for cooperation for disaster risk reduction, as appropriate, in the light of the present Framework, in order to foster more efficient planning, create common information systems and exchange good practices and programmes for cooperation and capacity development, in particular to address common and transboundary disaster risks;
- b. To foster collaboration across global and regional mechanisms and institutions for the implementation and coherence of instruments and tools relevant to disaster risk reduction, such as for climate change, biodiversity, sustainable development, poverty eradication, environment, agriculture, health, food and nutrition and others, as appropriate;
- c. To actively engage in the Global Platform for Disaster Risk Reduction, the regional and subregional platforms for disaster risk reduction and the thematic platforms in order to forge partnerships, periodically assess progress on implementation and share practice and knowledge on disaster risk-informed policies, programmes and investments, including on development and climate issues, as appropriate, as well as to promote the integration of disaster risk management in other relevant sectors. Regional intergovernmental organizations should play an important role in the regional platforms for disaster risk reduction;
- d. To promote transboundary cooperation to enable policy and planning for the implementation of ecosystem-based approaches with regard to shared resources, such as within river basins and along coastlines, to build resilience and reduce disaster risk, including epidemic and displacement risk;

- e. To promote mutual learning and exchange of good practices and information through, inter alia, voluntary and self-initiated peer reviews among interested States;
- f. To promote the strengthening of, as appropriate, international voluntary mechanisms for monitoring and assessment of disaster risks, including relevant data and information, benefiting from the experience of the Hyogo Framework for Action Monitor. Such mechanisms may promote the exchange of non-sensitive information on disaster risks to the relevant national Government bodies and stakeholders in the interest of sustainable social and economic development.

*Priority 3: Investing in Disaster Risk Reduction for Resilience*

Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation.

*National and Local Levels*

- a. To allocate the necessary resources, including finance and logistics, as appropriate, at all levels of administration for the development and the implementation of disaster risk reduction strategies, policies, plans, laws and regulations in all relevant sectors;
- b. To promote mechanisms for disaster risk transfer and insurance, risk-sharing and retention and financial protection, as appropriate, for both public and private investment in order to reduce the financial impact of disasters on Governments and societies, in urban and rural areas;
- c. To strengthen, as appropriate, disaster-resilient public and private investments, particularly through structural, non-structural and functional disaster risk prevention and reduction measures in critical facilities, in particular schools and hospitals and physical infrastructures; building better from the start to withstand hazards through proper design and construction, including the use of the principles of universal design and the standardization of building materials; retrofitting and rebuilding; nurturing a culture of maintenance; and taking into account economic, social, structural, technological and environmental impact assessments;
- d. To protect or support the protection of cultural and collecting institutions and other sites of historical, cultural heritage and religious interest;
- e. To promote the disaster risk resilience of workplaces through structural and non-structural measures;
- f. To promote the mainstreaming of disaster risk assessments into land-use policy development and implementation, including urban planning, land degradation assessments and informal and non-permanent housing, and the use of guidelines and follow-up tools informed by anticipated demographic and environmental changes;
- g. To promote the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management of, inter alia, mountains, rivers, coastal flood plain areas, drylands, wetlands and all other areas prone to droughts and flooding, including through the identification of areas that are safe for human

- settlement, and at the same time preserving ecosystem functions that help to reduce risks;
- h. To encourage the revision of existing or the development of new building codes and standards and rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable within the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, survey and enforce such codes through an appropriate approach, with a view to fostering disaster-resistant structures;
  - i. To enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary health care, especially at the local level; developing the capacity of health workers in understanding disaster risk and applying and implementing disaster risk reduction approaches in health work; promoting and enhancing the training capacities in the field of disaster medicine; and supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors, as well as in the implementation of the International Health Regulations (2005) of the World Health Organization;
  - j. To strengthen the design and implementation of inclusive policies and social safety-net mechanisms, including through community involvement, integrated with livelihood enhancement programmes, and access to basic health-care services, including maternal, newborn and child health, sexual and reproductive health, food security and nutrition, housing and education, towards the eradication of poverty, to find durable solutions in the post-disaster phase and to empower and assist people disproportionately affected by disasters;
  - k. People with life-threatening and chronic disease, due to their particular needs, should be included in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-saving services;
  - l. To encourage the adoption of policies and programmes addressing disaster-induced human mobility to strengthen the resilience of affected people and that of host communities, in accordance with national laws and circumstances;
  - m. To promote, as appropriate, the integration of disaster risk reduction considerations and measures in financial and fiscal instruments;
  - n. To strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction;
  - o. To increase business resilience and protection of livelihoods and productive assets throughout the supply chains, ensure continuity of services and integrate disaster risk management into business models and practices;
  - p. To strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds;
  - q. To promote and integrate disaster risk management approaches throughout the tourism industry, given the often heavy reliance on tourism as a key economic driver.

### *Global and Regional Levels*

To achieve this, it is important:



- a. To promote coherence across systems, sectors and organizations related to sustainable development and to disaster risk reduction in their policies, plans, programmes and processes;
- b. To promote the development and strengthening of disaster risk transfer and sharing mechanisms and instruments in close cooperation with partners in the international community, business, international financial institutions and other relevant stakeholders;
- c. To promote cooperation between academic, scientific and research entities and networks and the private sector to develop new products and services to help to reduce disaster risk, in particular those that would assist developing countries and their specific challenges;
- d. To encourage the coordination between global and regional financial institutions with a view to assessing and anticipating the potential economic and social impacts of disasters;
- e. To enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and the building of resilient health systems;
- f. To strengthen and promote collaboration and capacity-building for the protection of productive assets, including livestock, working animals, tools and seeds;
- g. To promote and support the development of social safety nets as disaster risk reduction measures linked to integrated with livelihood enhancement programmes in order to ensure resilience to shocks at the household and community levels;
- h. To strengthen and broaden international efforts aimed at eradicating hunger and poverty through disaster risk reduction;
- i. To promote and support collaboration among relevant public and private stakeholders to enhance the resilience of business to disasters.

*Priority 4: Enhancing Disaster Preparedness for Effective Response and to “Build Back Better” in Recovery, Rehabilitation and Reconstruction*

The steady growth of disaster risk, including the increase of people and assets exposure, combined with the lessons learned from past disasters, indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels. Empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery, rehabilitation and reconstruction approaches is key. Disasters have demonstrated that the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of a disaster, is a critical opportunity to “Build Back Better”, including through integrating disaster risk reduction into development measures, making nations and communities resilient to disasters.

*National and Local Levels*

To achieve this, it is important:

- a. To prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders;

- b. To invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; develop such systems through a participatory process; tailor them to the needs of users, including social and cultural requirements, in particular gender; promote the application of simple and low-cost early warning equipment and facilities; and broaden release channels for natural disaster early warning information;
- c. To promote the resilience of new and existing critical infrastructure, including water, transportation and telecommunications infrastructure, educational facilities, hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide life-saving and essential services;
- d. To establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities;
- e. To adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction;
- f. To train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies;
- g. To ensure the continuity of operations and planning, including social and economic recovery, and the provision of basic services in the post-disaster phase;
- h. To promote regular disaster preparedness, response and recovery exercises, including evacuation drills, training and the establishment of area-based support systems, with a view to ensuring rapid and effective response to disasters and related displacement, including access to safe shelter, essential food and non-food relief supplies, as appropriate to local needs;
- i. To promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels, including affected communities and business, in view of the complex and costly nature of post-disaster reconstruction, under the coordination of national authorities;
- j. To promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes, facilitate the link between relief, rehabilitation and development, use opportunities during the recovery phase to develop capacities that reduce disaster risk in the short, medium and long term, including through the development of measures such as land-use planning, structural standards improvement and the sharing of expertise, knowledge, post-disaster reviews and lessons learned and integrate post-disaster reconstruction into the economic and social sustainable development of affected areas. This should also apply to temporary settlements for persons displaced by disasters;
- k. To develop guidance for preparedness for disaster reconstruction, such as on land-use planning and structural standards improvement, including by learning from the recovery and reconstruction programmes over the decade since the adoption of the Hyogo Framework for Action, and exchanging experiences, knowledge and lessons learned;
- l. To consider the relocation of public facilities and infrastructures to areas outside the risk range, wherever possible, in the post-disaster reconstruction process, in consultation with the people concerned, as appropriate;
- m. To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas;

- n. To establish a mechanism of case registry and a database of mortality caused by disaster in order to improve the prevention of morbidity and mortality;
- o. To enhance recovery schemes to provide psychosocial support and mental health services for all people in need;
- p. To review and strengthen, as appropriate, national laws and procedures on international cooperation, based on the Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance.

#### *Global and Regional Levels*

To achieve this, it is important:

- a. To develop and strengthen, as appropriate, coordinated regional approaches and operational mechanisms to prepare for and ensure rapid and effective disaster response in situations that exceed national coping capacities;
- b. To promote the further development and dissemination of instruments, such as standards, codes, operational guides and other guidance instruments, to support coordinated action in disaster preparedness and response and facilitate information sharing on lessons learned and best practices for policy practice and post-disaster reconstruction programmes;
- c. To promote the further development of and investment in effective, nationally compatible, regional multi-hazard early warning mechanisms, where relevant, in line with the Global Framework for Climate Services, and facilitate the sharing and exchange of information across all countries;
- d. To enhance international mechanisms, such as the International Recovery Platform, for the sharing of experience and learning among countries and all relevant stakeholders;
- e. To support, as appropriate, the efforts of relevant United Nations entities to strengthen and implement global mechanisms on hydrometeorological issues in order to raise awareness and improve understanding of water-related disaster risks and their impact on society, and advance strategies for disaster risk reduction upon the request of States;
- f. To support regional cooperation to deal with disaster preparedness, including through common exercises and drills;
- g. To promote regional protocols to facilitate the sharing of response capacities and resources during and after disasters;
- h. To train the existing workforce and volunteers in disaster response.

#### *Role of Stakeholders*

While States have the overall responsibility for reducing disaster risk, it is a shared responsibility between Governments and relevant stakeholders. In particular, non-State stakeholders play an important role as enablers in providing support to States, in accordance with national policies, laws and regulations, in the implementation of the present Framework at local, national, regional and global levels. Their commitment, goodwill, knowledge, experience and resources will be required.

When determining specific roles and responsibilities for stakeholders, and at the same time building on existing relevant international instruments, States should encourage the following actions on the part of all public and private stakeholders:

- a. Civil society, volunteers, organized voluntary work organizations and community-based organizations to participate, in collaboration with public institutions, to, inter alia, provide specific knowledge and pragmatic guidance in the context of the development and implementation of normative frameworks, standards and plans for disaster risk reduction; engage in the implementation of local, national, regional and global plans and strategies; contribute to and support public awareness, a culture of prevention and education on disaster risk; and advocate for resilient communities and an inclusive and all-of-society disaster risk management that strengthen synergies across groups, as appropriate. On this point, it should be noted that:
  - i. Women and their participation are critical to effectively managing disaster risk and designing, resourcing and implementing gender-sensitive disaster risk reduction policies, plans and programmes; and adequate capacity building measures need to be taken to empower women for preparedness as well as to build their capacity to secure alternate means of livelihood in post-disaster situations;
  - ii. Children and youth are agents of change and should be given the space and modalities to contribute to disaster risk reduction, in accordance with legislation, national practice and educational curricula;
  - iii. Persons with disabilities and their organizations are critical in the assessment of disaster risk and in designing and implementing plans tailored to specific requirements, taking into consideration, inter alia, the principles of universal design;
  - iv. Older persons have years of knowledge, skills and wisdom, which are invaluable assets to reduce disaster risk, and they should be included in the design of policies, plans and mechanisms, including for early warning;
  - v. Indigenous peoples, through their experience and traditional knowledge, provide an important contribution to the development and implementation of plans and mechanisms, including for early warning;
  - vi. Migrants contribute to the resilience of communities and societies, and their knowledge, skills and capacities can be useful in the design and implementation of disaster risk reduction;
- b. Academia, scientific and research entities and networks to focus on the disaster risk factors and scenarios, including emerging disaster risks, in the medium and long term; increase research for regional, national and local application; support action by local communities and authorities; and support the interface between policy and science for decision-making;
- c. Business, professional associations and private sector financial institutions, including financial regulators and accounting bodies, as well as philanthropic foundations, to integrate disaster risk management, including business continuity, into business models and practices through disaster-risk-informed investments, especially in micro, small and medium-sized enterprises; engage in awareness-raising and training for their employees and customers; engage in and support

research and innovation, as well as technological development for disaster risk management; share and disseminate knowledge, practices and non sensitive data; and actively participate, as appropriate and under the guidance of the public sector, in the development of normative frameworks and technical standards that incorporate disaster risk management;

- d. Media to take an active and inclusive role at the local, national, regional and global levels in contributing to the raising of public awareness and understanding and disseminate accurate and non-sensitive disaster risk, hazard and disaster information, including on small-scale disasters, in a simple, transparent, easy-to-understand and accessible manner, in close cooperation with national authorities; adopt specific disaster risk reduction communications policies; support, as appropriate, early warning systems and life-saving protective measures; and stimulate a culture of prevention and strong community involvement in sustained public education campaigns and public consultations at all levels of society, in accordance with national practices.

With reference to General Assembly resolution 68/211 of 20 December 2013, commitments by relevant stakeholders are important in order to identify modalities of cooperation and to implement the present Framework. Those commitments should be specific and time-bound in order to support the development of partnerships at local, national, regional and global levels and the implementation of local and national disaster risk reduction strategies and plans. All stakeholders are encouraged to publicize their commitments and their fulfillment in support of the implementation of the present Framework, or of the national and local disaster risk management plans, through the website of the United Nations Office for Disaster Risk Reduction.

## **International Cooperation and Global Partnership**

### **General Considerations**

Given their different capacities, as well as the linkage between the level of support provided to them and the extent to which they will be able to implement the present Framework, developing countries require an enhanced provision of means of implementation, including adequate, sustainable and timely resources, through international cooperation and global partnerships for development, and continued international support, so as to strengthen their efforts to reduce disaster risk.

International cooperation for disaster risk reduction includes a variety of sources and is a critical element in supporting the efforts of developing countries to reduce disaster risk.

In addressing economic disparity and disparity in technological innovation and research capacity among countries, it is crucial to enhance technology transfer, involving a process of enabling and facilitating flows of skill, knowledge, ideas, know-how and technology from developed to developing countries in the implementation of the present Framework.

Disaster-prone developing countries, in particular the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges, warrant particular attention in view of their higher vulnerability and risk levels, which often greatly exceed their capacity to respond to and recover

from disasters. Such vulnerability requires the urgent strengthening of international cooperation and ensuring genuine and durable partnerships at the regional and international levels in order to support developing countries to implement the present Framework, in accordance with their national priorities and needs. Similar attention and appropriate assistance should also be extended to other disaster-prone countries with specific characteristics, such as archipelagic countries, as well as countries with extensive coastlines.

Disasters can disproportionately affect Small Island developing States, owing to their unique and particular vulnerabilities. The effects of disasters, some of which have increased in intensity and have been exacerbated by climate change, impede their progress towards sustainable development. Given the special case of Small Island developing States, there is a critical need to build resilience and to provide particular support through the implementation of the SIDS Accelerated Modalities of Action (SAMOA) Pathway in the area of disaster risk reduction.

African countries continue to face challenges related to disasters and increasing risks, including those related to enhancing resilience of infrastructure, health and livelihoods. These challenges require increased international cooperation and the provision of adequate support to African countries to allow for the implementation of the present Framework.

North-South cooperation, complemented by South-South and triangular cooperation, has proven to be key to reducing disaster risk and there is a need to further strengthen cooperation in both areas. Partnerships play an additional important role by harnessing the full potential of countries and supporting their national capacities in disaster risk management and in improving the social, health and economic well-being of individuals, communities and countries.

Efforts by developing countries offering South-South and triangular cooperation should not reduce North-South cooperation from developed countries as they complement North-South cooperation.

Financing from a variety of international sources, public and private transfer of reliable, affordable, appropriate and modern environmentally sound technology, on concessional and preferential terms, as mutually agreed, capacity-building assistance for developing countries and enabling institutional and policy environments at all levels are critically important means of reducing disaster risk.

### **Means of Implementation**

To achieve this, it is necessary:

To reaffirm that developing countries need enhanced provision of coordinated, sustained and adequate international support for disaster risk reduction, in particular for the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges, through bilateral and multilateral channels, including through enhanced technical and financial support and technology transfer on concessional and preferential terms, as mutually agreed, for the development and strengthening of their capacities;

- a. To enhance access of States, in particular developing countries, to finance, environmentally sound technology, science and inclusive innovation, as well as knowledge and information sharing through existing mechanisms, namely bilateral,

- regional and multilateral collaborative arrangements, including the United Nations and other relevant bodies;
- b. To promote the use and expansion of thematic platforms of cooperation, such as global technology pools and global systems to share know-how, innovation and research and ensure access to technology and information on disaster risk reduction;
  - c. To incorporate disaster risk reduction measures into multilateral and bilateral development assistance programmes within and across all sectors, as appropriate, related to poverty reduction, sustainable development, natural resource management, the environment, urban development and adaptation to climate change.

### **Support from International Organizations**

To support the implementation of the present Framework, the following is necessary:

- a) The United Nations and other international and regional organizations, international and regional financial institutions and donor agencies engaged in disaster risk reduction are requested, as appropriate, to enhance the coordination of their strategies in this regard;
- b) The entities of the United Nations system, including the funds and programmes and the specialized agencies, through the United Nations Plan of Action on Disaster Risk Reduction for Resilience, United Nations Development Assistance Frameworks and country programmes, to promote the optimum use of resources and to support developing countries, at their request, in the implementation of the present Framework, in coordination with other relevant frameworks, such as the International Health Regulations (2005), including through the development and the strengthening of capacities and clear and focused programmes that support the priorities of States in a balanced, well-coordinated and sustainable manner, within their respective mandates;
- c) The United Nations Office for Disaster Risk Reduction, in particular, to support the implementation, follow-up and review of the present Framework by: preparing periodic reviews on progress, in particular for the Global Platform for Disaster Risk Reduction, and, as appropriate, in a timely manner, along with the follow-up process at the United Nations, supporting the development of coherent global and regional follow-up and indicators, and in coordination, as appropriate, with other relevant mechanisms for sustainable development and climate change, and updating the existing web-based Hyogo Framework for Action Monitor accordingly; participating actively in the work of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators; generating evidence-based and practical guidance for implementation in close collaboration with States and through the mobilization of experts; reinforcing a culture of prevention among relevant stakeholders through supporting development of standards by experts and technical organizations, advocacy initiatives and dissemination of disaster risk information, policies and practices, as well as by providing education and training on disaster risk reduction through affiliated organizations; supporting countries, including through national platforms or their equivalent, in their development of national plans and monitoring trends and patterns in disaster risk, loss and impacts; convening the Global Platform for Disaster Risk Reduction and supporting the organization of regional platforms for disaster risk reduction in cooperation with regional organizations; leading the

- revision of the United Nations Plan of Action on Disaster Risk Reduction for Resilience; facilitating the enhancement of, and continuing to service, the United Nations Office for Disaster Risk Reduction Scientific and Technical Advisory Group in mobilizing science and technical work on disaster risk reduction; leading, in close coordination with States, the update of the publication entitled “2009 UNISDR Terminology on Disaster Risk Reduction”, in line with the terminology agreed upon by States; and maintaining the stakeholders’ commitment registry;
- d) International financial institutions, such as the World Bank and regional development banks, to consider the priorities of the present Framework for providing financial support and loans for integrated disaster risk reduction to developing countries;
  - e) Other international organizations and treaty bodies, including the Conference of the Parties to the United Nations Framework Convention on Climate Change, international financial institutions at the global and regional levels and the International Red Cross and Red Crescent Movement to support developing countries, at their request, in the implementation of the present Framework, in coordination with other relevant frameworks;
  - f) The United Nations Global Compact, as the main United Nations initiative for engagement with the private sector and business, to further engage with and promote the critical importance of disaster risk reduction for sustainable development and resilience;
  - g) The overall capacity of the United Nations system to assist developing countries in disaster risk reduction should be strengthened by providing adequate resources through various funding mechanisms, including increased, timely, stable and predictable contributions to the United Nations Trust Fund for Disaster Reduction and by enhancing the role of the Trust Fund in relation to the implementation of the present Framework;
  - h) The Inter-Parliamentary Union and other relevant regional bodies and mechanisms for parliamentarians, as appropriate, to continue supporting and advocating disaster risk reduction and the strengthening of national legal frameworks;
  - i) The United Cities and Local Government organization and other relevant bodies of local governments to continue supporting cooperation and mutual learning among local governments for disaster risk reduction and the implementation of the present Framework.

### **Follow-up Actions**

The Conference invites the General Assembly, at its seventieth session, to consider the possibility of including the review of the global progress in the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 as part of its integrated and coordinated follow-up processes to United Nations conferences and summits, aligned with the Economic and Social Council, the High-level Political Forum for Sustainable Development and the quadrennial comprehensive policy review cycles, as appropriate, taking into account the contributions of the Global Platform for Disaster Risk Reduction and regional platforms for disaster risk reduction and the Hyogo Framework for Action Monitor system.

50. The Conference recommends to the General Assembly the establishment, at its sixty-ninth session, of an open-ended intergovernmental working group, comprising experts nominated by Member States, and supported by the United Nations Office for Disaster Risk Reduction, with



involvement of relevant stakeholders, for the development of a set of possible indicators to measure global progress in the implementation of the present Framework in conjunction with the work of the Inter-Agency and Expert Group On Sustainable Development Goal Indicators. The Conference also recommends that the working group consider the recommendations of the United Nations Office for Disaster Risk Reduction Scientific and Technical Advisory Group on the update of the publication entitled “2009 UNISDR Terminology on Disaster Risk Reduction” by December 2016, and that the outcome of its work be submitted to the Assembly for its consideration and adoption.

**20. Government of the People’s Republic of Bangladesh  
National Plan for Disaster Management 2010-2015  
Disaster Management Bureau Disaster Management & Relief Division  
April 2010**

The National Plan for Disaster Management 2010-2015 is an outcome of the national and international commitments of the Government of Bangladesh (GoB) and the Disaster Management and Relief Division (DM&RD) for addressing the disaster risks comprehensively. The plan has been developed on the basis of the GoB Vision and MoFDM mission to reduce the vulnerability of the poor to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level by (a) bringing a paradigm shift in disaster management from conventional response and relief practice to a more comprehensive risk reduction culture and (b) Strengthening the capacity of the Bangladesh disaster management system in improving the response and recovery management at all levels. Bangladesh has taken a holistic approach towards disaster management, where emphasis has been given to working together with all stakeholders to build strategic, scientific and implementation partnerships with all relevant government departments and agencies, other key non-government players including NGOs, academic and technical institutions, the private sector and donors. The role of Government is mainly to ensure that risk reduction and comprehensive disaster management is a focus of national policy and programmes. The National Plan for Disaster Management is indicative to what the relevant regional and sectoral plans would consider to address the key issues like risk reduction, capacity building, climate change adaptation, livelihood security, gender mainstreaming, community empowerment and response and recovery management. The plan also will act as basic guideline for all relevant agencies in strengthening better working relations and enhancing mutual cooperation. The plan reflects the country’s initiatives since the creation of the Disaster Management Bureau in 1993 in line with the paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture having the development linkages. Inclusion of Policy Matrix on Comprehensive Disaster Management towards poverty reduction and growth in Poverty Reduction Strategy (PRS) is an indicator of mainstreaming risk reduction and consideration of disaster-development linkages. The Government of Bangladesh is committed to the implementation of its global and national commitment for establishing risk reduction framework. Execution of Standing Orders on Disaster, drafting of the Disaster Management Act, developing of the National Disaster Management Policy, launching of the MoFDM Corporate Plan, developing the Bangladesh Disaster Management Model, establishing the Disaster Management Information Centre (DMIC) and developing the National Plan for Disaster Management are the major milestones in the long run of our achievements. The strategic goals of the Plan are drawn from the SAARC Disaster

Management Framework. These goals are well linked to the international and national drivers, so that the plan can articulate the long-term strategic focus of disaster management in Bangladesh. We hope that the plan will contribute towards the formulation of a road map for the development of strategic and operational plan by various entities.

### **Disaster Management System in Bangladesh**

The Disaster Management and Relief Division (DM&RD), MoFDM of the Government of Bangladesh has the responsibility for coordinating national disaster management efforts across all agencies. In January 1997 the Ministry issued the Standing Orders on Disaster (SOD) to guide and monitor disaster management activities in Bangladesh.

The SOD have been prepared with the avowed objective of making the concerned persons understand their duties and responsibilities regarding disaster management at all levels, and accomplishing them. All Ministries, Divisions/Departments and Agencies shall prepare their own Action Plans in respect of their responsibilities under the Standing Orders for efficient implementation. The National Disaster Management Council (NDMC) and Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) will ensure coordination of disaster related activities at the National level. Coordination at District, Thana and Union levels will be done by the respective District, Thana and Union Disaster Management Committees. The Disaster Management Bureau will render all assistance to them by facilitating the process.

A series of inter-related institutions, at both national and sub-national levels (Figure 16) have been created to ensure effective planning and coordination of disaster risk reduction and emergency response management.

#### *At the national level*

1. National Disaster Management Council (NDMC) headed by the Honourable Prime Minister to formulate and review the disaster management policies and issue directives to all concerns.
2. Inter-Ministerial Disaster Management Co-ordination Committee (IMDMCC) headed by the Hon'ble Minister in charge of the Disaster Management and Relief Division (DM&RD) to implement disaster management policies and decisions of NDMC / Government.
3. National Disaster Management Advisory Committee (NDMAC) headed by an experienced person having been nominated by the Honourable Prime Minister.
4. National Platform for Disaster Risk Reduction (NPDRR) headed by Secretary, DM&RD and DG, DMB functions as the member secretary. This platform shall coordinate and provide necessary facilitation to the relevant stakeholders.
5. Earthquake Preparedness and Awareness Committee (EPAC) headed by Honourable minister for MoFDM and DG, DMB act as member secretary
6. Cyclone Preparedness Program Implementation Board (CPPIB) headed by the Secretary, Disaster Management and Relief Division to review the preparedness activities in the face of initial stage of an impending cyclone.
7. Cyclone Preparedness Programme (CPP) Policy Committee headed by Honourable Minister, MoFDM and Secretary, DM&RD act as member secretary. Disaster Management Training and Public Awareness Building Task Force (DMTATF) headed by the Director General of Disaster Management Bureau (DMB) to coordinate the disaster

related training and public awareness activities of the Government, NGOs and other organizations.

8. Focal Point Operation Coordination Group of Disaster Management (FPOCG) headed by the Director General of DMB to review and coordinate the activities of various departments/agencies related to disaster management and also to review the Contingency Plan prepared by concerned departments.
9. NGO Coordination Committee on Disaster Management (NGOCC) headed by the Director General of DMB to review and coordinate the activities of concerned NGOs in the country.
10. Committee for Speedy Dissemination of Disaster Related Warning/ Signals (CSDDWS) headed by the Director General of DMB to examine, ensure and find out the ways and means for the speedy dissemination of warning/ signals among the people.

#### *At sub-national levels*

- District Disaster Management Committee (DDMC) headed by the Deputy Commissioner (DC) to coordinate and review the disaster management activities at the District level.
- Upazila Disaster Management Committee (UZDMC) headed by the Upazila Nirbahi Officer (UNO) to coordinate and review the disaster management activities at the Upazila level.
- Union Disaster Management Committee (UDMC) headed by the Chairman of the Union Parishad to coordinate, review and implement the disaster management activities of the concerned Union.
- Pourashava Disaster Management Committee (PDMC) headed by Chairman of Pourashava (municipality) to coordinate, review and implement the disaster management activities within its area of jurisdiction.
- City Corporation Disaster Management Committee (CCDMC) headed by the Mayor of City Corporations to coordinate, review and implement the disaster management activities within its area of jurisdiction.

#### **Implementation of Seventh Plan Gender Strategy**

The gender agenda for the Seventh Plan is large and priorities for the next five years will have to be set. Priority areas would be chosen on the basis of contribution towards both economic growth and women's empowerment and actions that can facilitate results in more than one area. The key areas would be to ensure equal benefit from quality formal education; marketable skills to maximize productivity and potential of women; narrowing of wage gap between similarly qualified male and female workers; elimination of all types of biases against female staff at the work place; nutrition and lifelong health care; infrastructure that facilitates women's human development, mobility and economic gains; and actions that enhances positive social norms and reduces VAW and other harmful practices. An assessment of geographic areas that lag behind national average as measured by different gender equality indicators would be prioritized for resource allocation and closing the gender gap in the identified areas. Enforcement of laws and policies and effective monitoring should be ensured for good administration and governance. The available resource envelop for 7th FYP would be reviewed, resource requirements to address gender equality objectives and targets should be estimated and additional resources should be sought, as needed.

Mainstreaming of gender would continue and all macro-economic and sectoral policies would integrate gender as a crosscutting theme. Action plans should be drawn with a view to reduce inequality and promote an equal relationship between sexes. To ensure results from actions related to gender equality all reporting of national progress including those related to Post 2015 agenda would be based on sex disaggregated data to allow a better understanding the progress in the area of gender equality and women's empowerment. Partnership and cooperation with Civil Society Organizations (CSO) including development and advocacy groups and private sector would be strengthened to promote their role and support in implementation and monitoring of actions and to achieve good results. Development and advocacy initiatives on gender equality issues and to form public opinion against harmful practices would be pursued jointly and they should be partners in better delivery of services, especially in rural and remote areas.

More specifically, the gender implementation arrangements will be strengthened through the following actions:

#### *Effective and Strong Institutional Mechanism*

The existing institutional mechanism for women's advancement will be made more effective with accountability, capacity and authority. Regular guidance from NCWCD, functioning of the committees and the WID Focal Point mechanism would be ensured. Capacity of the key institutions like MOWCA including DWA and PLAU, IMED, BBS, OAG and Planning Commission would be strengthened in performing their roles as per mandate in design, review, implementation, and monitoring of gender equality and women's advancement related actions and their results. MOWCA would be geared more towards an oversight role like other regulatory ministries with review of its mandate to promote its roles to monitor gender equality with allocation of adequate resources. The BBS will be tasked with generating gender disaggregated data synchronized with the national and sectoral indicators and the reporting needs for CEDAW, SDG and such others. IMED would have accountability to monitor gender equality results and the Office of the Auditor General (OAG) should be given responsibility of auditing gender budget expenditure. Similarly Bangladesh Institute of Development Studies (BIDS) can be assigned to necessary gender equality research and BMET strengthened for analysis of labour markets at home and abroad.

#### *Sufficient Financial and Human Resources for Gender Mainstreaming*

Generally there is a lack of resources for agencies in implementing and monitoring activities for advancing women's rights and gender equality. Similarly, there is a general lack of capacity and allocation of human resources to work in this area. Projects or programmes generally lack resources for the identified gender related actions. Often functions in this area are consultant dependent. It is therefore important to allocate both financial resources as per targets of each agency and projects and human resources in the institution with capacity development support. The National Action Plan would be used as a reference point while allocating resources for women's empowerment and gender equality.

#### *Adequate Technical Knowledge and Support Services*

It is important to increase the number of technically competent persons who can carry out gender analysis, assessment, planning, implementation and monitoring. Though Dhaka University and some institutions have initiated courses, the education institutions should be encouraged to initiate additional courses to develop technical knowledge on how to address gender in different sectoral operations. The capacity of PLAU and DWA should be enriched so that their staff are

able to monitor performance and can guide other agencies and ministries, if needed. Gender analysis training should be part of all staff training.

#### *Transparent Monitoring Mechanisms Established and Implemented to Measure Impact of Public Policies and Programmes*

The review of 7th FYP programmes should incorporate monitoring of gender equality results. IMED monitoring should integrate monitoring of progress of women's empowerment and gender equality based on project/ Programme targets. More rigorous monitoring of the gender budget is essential across agencies, sectors and field level. The OAG should be assigned to monitor expenditure and results in the area of gender equality. Transparent procedures at different levels would include holding open meetings, issuing publicly available financial disclosure statements, and conducting budget review.

#### *Capacity to Develop, Implement, and Monitor Gender Strategies Across Government and Sectors*

Building the capacity of women and men in institutions to understand gender issues and developing their motivation to bring about changes within their own domain and act accordingly. Orientation of the policy makers and training and capacity building of existing staff contingent in different institutions has to be continued and expanded. All training programmes of different institutions should integrate gender issues that are relevant to the sectors' or departments' operation with specific actions identified and monitoring of the same. Private sectors should be encouraged to incorporate gender perspectives in their operation and employ gender specialists, if needed.

#### *Defined National and Sectoral Gender Equality Results*

The indicator of the government's performance on gender will be defined besides measuring growth, investment, deficit etc. A compilation of defined gender equality results with indicators would be integrated in the plan document for all sectors for monitoring purpose. At the national level, a list of gender equality indicators would be identified, agreed and monitored. The poverty assessment and income data would be gender disaggregated in all wealth groups so that women's poverty reduction is effectively measured.

#### *Accountability for Gender Equality Results*

Accountability for the achievement of gender equality targets and results must be ensured. The Project/Programme management should ensure utilization of resources for gender equality as stated in the project documents, and be accountable for any failure. Reallocation of resources from gender equality objectives to other action areas should be restricted. Performance assessment criteria of projects/programmes should ensure assessment of gender equality targets and results. At country level accountability means that the Government, private sector, parliaments, local development actors, civil society including women's organizations, private sector and national women's machineries make transparent and binding commitments and that they all should work for gender equality in their own area and be accountable. The Government would provide guidelines, ensure oversight and establish partnership for ensuring accountability.

#### *Monitoring and Evaluation*

For establishing good monitoring and evaluation (M&E) mechanism, it is critical to have a list of agreed gender equality indicators at the national level for measuring the progress of gender equality. These may include employment in formal sector, tertiary education, reduction of VAW and child marriage, reduction of maternal mortality and malnutrition, reduction of poverty of female headed households and such other key areas. These should be consistent with the probable indicators of the Sustainable Development Goals (SDG). At the sectoral level, a few key performance indicators (KPI) in each sector would be identified and monitored. The GED of the Planning Commission would finalize the indicators with support from sectoral ministries. All relevant stakeholders working in the sector should be informed of the expected results and indicators so that they are also active in implementing actions and monitoring for those results.

### **DM in Bangladesh has been Guided by a Number of National and International Drivers Which Among Others Includes**

- a. The Standing Orders on Disasters (SOD) first introduced in 1997 and then revised in 2010;
- b. The Millennium Declaration (MDG) to protect the vulnerable from the consequences of natural disasters;
- c. The National Plan for Disaster Management 2010-2015;
- d. The Hyogo framework for action (HFA) 2005-2015 and
- e. The SAARC Framework for Action (SFA) 2006/2015.

These international guidances are included in national drivers like the SOD and the NPDM. In light of MDG and HFA expiring in 2015, DM issues in the 7th Plan will reflect the Sustainable Development Goals and Sendai Framework for Disaster Risk Reduction.

Mainstreaming Disaster and Climate Change risk reduction integration efforts within government, NGOs and private sector and effective response mechanism across the whole country are prepared in order to achieve sustainable development from national to community level.

It is expected that women, children, elderly, the disable and other socially marginalized groups will be primary beneficiaries of all disaster management efforts.

#### *Disaster Management Policy*

The Disaster Management (DM) Policy has recently been approved by the Government of Bangladesh. It emphasizes on Disaster Risk Reduction (DRR) to a great extent. The policy puts importance on DM fund which will be a dedicated fund for DM. Overall, it is expected that the policy will be an effective instrument to make DM efficient in Bangladesh.

#### *National Plan for Disaster Management (NPDM)*

The National Plan for Disaster Management is an outcome of the HFA and of the process of regional cooperation in South Asia. The NPDM 2010-2015 envisages a group of broad-based strategies:

- a) Disaster management would involve the management of both risks and consequences of disasters that would include prevention emergency response and post-disaster recovery.
- b) Community involvement for preparedness programmes for protecting lives and properties would be a major focus. Involvement of local government bodies would be essential part of the strategy. Self-reliance should be the key for preparedness, response and recovery.

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

NPDM illustrated the Disaster Management Model, which dictates disaster management activities in Bangladesh. It comprises of 2 main elements namely Disaster Risk Reduction (DRR) and Emergency Response. DRR includes defining and identifying the risk environment through rigorous analysis, and managing the risk environment. Responding to the threat environment falls under emergency response.

#### *Disaster Management Act (DMA) 2012*

The objectives of this Act are substantial reduction of the overall risks of disasters to an acceptable level with appropriate risk reduction interventions; effective implementation of post disaster emergency response; rehabilitation and recovery measures; provision of emergency humanitarian assistance to the most vulnerable community people; strengthening of institutional capacity for effective coordination of disaster management involving government and non-government organizations, and establishing a disaster management system capable of dealing with all hazards in the country.

Following its enactment, the Government has set up the Department for Disaster Management (DDM) with a more robust and wider role focusing on comprehensive disaster management, and has been responsible for implementation of the national disaster management related policies and plans at all levels.

#### *Standing Orders on Disaster (SoD)*

The Standing Orders on Disaster (SoD) outlines the disaster management arrangements in Bangladesh and describes the detailed roles and responsibilities of committees, ministries, divisions, departments and other organizations involved in disaster risk reduction and emergency response management and established the necessary actions required in implementing Bangladesh's disaster management model, such as defining the risk environment, managing the risk environment and responding to the threat environment. All ministries, divisions/department and agencies shall prepare their own Action Plans in respect of their responsibilities under the Standing Orders for efficient implementation.

#### *Comprehensive Disaster Management Programme (CDMP)*

CDMP, with its second phase recently concluded, aimed to further reduce Bangladesh's vulnerability to adverse natural and anthropogenic hazards and extreme events.

#### *Disaster Management Activities under implementation*

The Government has expressed its commitment to reducing the harsh impacts of disasters and improves disaster management. During the 6th FYP, Bangladesh made good progress in moving towards resilience. Its accomplishments can be summarized under four broad categories:

#### *Mainstreaming DRR and CCA*

The Disaster Management Act (2012) has been implemented and a Disaster Management policy has been approved. The Disaster Management Policy will provide guidance, plan and help prepare for all types hazards and disaster. Department of Disaster Management was also established to implement DM Act 2012. DPP (Development Project Proforma) process has been

amended to require climate and disaster risk analysis for new development projects prior to their approval.

Earlier, the Comprehensive Disaster Management Programme (CDMP) was launched to facilitate the reform of the disaster management approach by expanding its focus from reactive emergency responses to proactive risk reduction. The National Curriculum and Text Book Board (NCTB) has been supported to incorporate DRR and CCA into education.

### DRR Strategies

A number of strategies have been pursued to better implement DRR. Seismic micro zonation atlases for 9 major cities have been prepared. Multi hazard vulnerability assessment cell has been established at DDM. Hundreds of structural and non-structural risk reduction projects at the local level have been implemented by a range of actors including the Government. These have benefitted millions of people.

Massive efforts are underway to create shelters for disasters and to make communities more resilient. During sixth plan period a total of 107 cyclone shelters have been constructed in 13 districts of coastal area of Bangladesh. Besides, additional 400 shelters are targeted to be built by 2020 in all over the coastal belt. Besides, 10,103 resilient houses have been built in Alia affected areas of Chittagong, Barisal and Khulna Division during 2010-2014, out of which 7,938 have been constructed with the assistance of GoB contributed Climate Change Trust Fund. The Government has targeted to build 97,000 resilient houses with support of Asian Development Bank in year 2015-2020. The Government has initiated the Emergency Cyclone Recovery and Restoration Project (ECCRP) to build multipurpose cyclone shelters. During Cyclone Mahasen, an estimated 40,219 people and 4307 livestock used ECCRP's new and upgraded shelters. MoDMR is also constructing food shelters, procuring search and rescue equipment for earthquakes and other disasters.

### Disaster Preparedness, Warning and Response

In order to promote awareness on disaster related information, an Interactive Voice Response (IVR) system has been initiated. The IVR can be accessed through any mobile phone and provides information such as weather updates, cyclone warnings, and information for sea-going fishermen. Disaster Management Information Centre (DMIC) has also been established to disseminate disaster related information and early warning in a coordinated way. Initiatives have been taken to send disaster alert through SMS to Union Information Service Centre from DMIC.

To tackle food insecurity resulting from disasters, the Government keeps a healthy storage of staple which ensures availability during pressing times. Recently, the GoB has enhanced its food storage capacity from about 12 million tonnes to over 16 million tonnes, by building silos across the country. Cyclone Preparedness Program (CPP) has now a total of 55,260 volunteers including 16,455 female volunteers. Simultaneously, in order to enhance the effectiveness and efficiency of the post-earthquake search and rescue operations, government has undertaken initiatives to form a total of 70,260 thousand urban volunteers by 2020. As a part of initiative, the MoDMR through its CDMP Project has already developed 32 thousand volunteers. Besides, Bangladesh Scout is also taking active part in Disaster Management activities on necessity. Volunteerism for disasters has been enhanced by enhancement of the cyclone preparedness programme and creation of the flood preparedness programme implemented by Ansar & VDP. Community Based Disaster Preparedness Model has been developed and operationalized which



links response interventions with risk reduction and enables risk-informed planning, implementation and monitoring of disaster preparedness.

An Emergency Response and Communication Centre (ERCC) and a National Disaster Management Research and Training Institute (NDMRTI) will be established under the Urban Resilience Project. The purpose of the ERCC and NDMRTI is to enhance the emergency management and preparedness capacity at national level and local level city corporations as well as FSCD (Fire Service and Civil Defence) in Dhaka and Sylhet through training, exercise and drills.

MoDMR has procured 7,496 no. of equipment for search and rescue operation related to earthquake and other disasters in 2011-2014. These equipments have already been distributed to Fire Service & Civil Defence and Armed Forces Division. Procurement of more equipment is under process. Tentatively, 15,020 no. of disaster related equipment is planned to be procured during the 7th FYP period. Besides, 2154 no. of equipment for water related disasters will be procured with support of Government of Japan by 2020.

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#### *Post-Disaster Recovery, Reconstruction, and Rehabilitation*

In the sixth plan period, spending on Social Safety Net (SSN) has been substantial. GoB runs Gratuitous Relief, Test Relief, Food for Work, Cash for Works and Employment Generation Programme for the Poorest (EGPP) with SSN allocation. Significant delivery of disaster relief and recovery assistance has been achieved via DDMR's social safety net programme. Approximately, 30% of the total budget allocation for Safety Net is being implemented by MoDMR. Besides, to mitigate seasonal unemployment problem during lean periods employment opportunity has been created for the rural poor through implementing the Employment Generation Program for the poorest and Food for Works Program. Cyclone Aila affected communities were supported with disaster resilient housing with funding from the GoB Climate Change Trust Fund and development partners. Needs Assessment capacity of DDM has been strengthened through development of SOS and D-Form Guidelines and training of DRRO, PIOS, and UNOs. Joint Government-Development Partner cooperation for effective disaster response and recovery strengthened through the reformed humanitarian coordination architecture which includes the LCG-DER, Humanitarian Coordination Task Team (HCTT) and the humanitarian clusters.

To facilitate economic enhancement and better communication during disasters, MoDMR is implementing projects to improve the rural earthen roads. In persuasion of this effort, 7,92,375 km rural roads have been constructed through FFW and EGPP during the period 1999-2014 all over Bangladesh. Besides, 2,50,000 km rural earth roads is planned to be constructed in 7th FYP period. Further, 33km pacca roads will be constructed in collaboration with LGED with JICA assistance in 19 districts of Komen affected areas in coastal areas, and 3145 km Herring Bone Bond (HBB) roads will be constructed by 2020. 6371 bridges/culverts (up to 12 meter) were

constructed with GoB fund all over Bangladesh including Hill Tracks. Further, a project for construction of bridge/culvert has been undertaken to implement for the period 2016-2020. It is expected that 12,972 number of bridges/culverts will be built by 2020. In addition, 356 meter of small scale bridge, 7 km of embankment and 8 no. of sluice gates will be constructed in collaboration with BWDB with the assistance of JICA in Komen affected areas of Bangladesh.<sup>3</sup>

The importance of gender mainstreaming in environmental efforts and poverty eradication has been recognized in a wide range of global agreements and conventions and within this context governments have equipped all three of the Rio Conventions with strong mandates on gender equality and women's empowerment for the first time. By signing and ratifying the United Nations Conventions on Biodiversity (CBD), on Climate Change (UNFCCC), and on Desertification (UNCCD), governments officially committed to implement these agreements and monitor and report on their progress. Implementation of these international agreements at national level now requires urgent attention. Over the last decade, some new knowledge has been generated that allowed for a clearer understanding of the linkages between gender and adaptation however there is a need for more to be done. This task is becoming more urgent with the increasing attention given to adaptation under the United Nations Framework Convention on Climate Change (UNFCCC).

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<sup>3</sup> SEVENTH FIVE YEAR PLAN; FY2016 – FY2020; General Economics Division (GED) Planning Commission Government of the People's Republic of Bangladesh

# **Chapter 4**

## **Literature Review**

# **1. Sectoral Inputs Towards the Formulation of Seventh Five Year Plan (2016 – 2021) Climate Change and Change and Disaster Management**

**Ahsan Uddin Ahmed, Saleemul Haq, Mahbuba Nasreen and Abu Wali Raghieb Hassan**

This study observed climate change and disaster management issues in Seventh Five Year Plan for the period 2016 – 2021 formulated by the Government of Bangladesh. It showed Seventh Five Year Plan was consisted of a total of 28 background papers, mostly sector-specific, have been identified – each of which will be completed as inputs towards formulating the Plan.

As said by this study The GOB recognizes people’s own initiatives and coping strategies towards facing the adverse impacts of hazards. The GOB has also been invested a large amount and deployed institutions to offer protection measures, early warning systems, during- and post-hazards relief and recovery over the past four decades. Although many of the above responses are gender neutral, the GOB is willing to consider gender sensitive responses in its future activities in this regard. Policies and legal frameworks have been formulated in order to equip the GOB machinery to consider steps towards reducing risks of disasters and climate change.

Despite such groundbreaking initiatives and policy frameworks, the GOB recognizes a few challenges which needs to be overcome in order to provide adequate services to the citizens towards reducing risks of hazards and disasters with or without climate change and to steer the country’s economy in a low carbon and energy efficient pathway. The following are identified as current limitations which require immediate attention.

- Limited understanding, knowledge and capacity.
- Inadequate management skills at all tiers.
- Adaptation priorities are yet to be set out.
- Inadequate integration of climate risk with development planning and budgeting.
- Weakness in implementation, monitoring and shared learning.
- Limited financing.
- Weaknesses in institutional coordination

Greater efforts must be made to understand and respond to gender differentiated impacts of climate change and the adaptive capacity of both women and men. Adaptation must be devised based on gender differentiated vulnerability analyses and implemented in a way that addresses issues of gender equality. In particular, women’s adaptive capacity must be recognized and enhanced as key actors in the implementation of CCA activities. The Climate Change Gender Action Plan (ccGAP), developed by the GOB needs to be disseminated amongst stakeholders and implemented within the purview of the 7th Five Year Plan. Since it has linkages with all six pillars of the BCCSAP, the plan must be given due priority for implementation in near future in a bid to integrate gender concerns in all activities on climate change adaptation.

## **On Disaster Risk Reduction**

The following may be listed as immediate targets for the GOB to achieve during the seventh five year plan.

- Implementation of the Disaster Management Act, distinguishing the appropriate methods of mitigation for all hazard types. Prevailing gaps in terms of ‘specific rules’ need to be formulated to make the DM Act functional.
- Identification of adequate national resources to finance risk reduction and enable appropriate allocation of resources to vulnerability reduction through local level

mechanisms. International financing can also play a positive role, but should not be considered the main source.

- Robust financing policies and mechanisms for disaster recovery and reconstruction should be developed, including elaboration of the role of private finance through capital markets, insurance industry and how the GOB may contribute to the development of effective market mechanisms to support risk hedging.
- DRR (Disaster Risk Reduction) and CCA (Climate Change Adaptation) policy frameworks continue to be developed strengthened and implemented by MODMR (Ministry of Disaster Management & Relief) and across the GOB (Government of Bangladesh).
- Knowledge, understanding and requisite skills for DRR are developed by GOB (Government of Bangladesh) officials at all levels and that relevant knowledge and information is also available for households.
- Coordination and collaboration between GOB (Government of Bangladesh) and non-governmental institutions, volunteer organizations, private enterprise and others are developed and maintained.
- Regional cooperation should be further strengthened for disaster management, in particular on trans-boundary data sharing with India on climate, rainfall and river flows.
- Gender, vulnerability and inclusivity issues should be considered across all the sectors and ministries in all the phases of disasters.
- DDM (Department of Disaster Management) leadership on humanitarian coordination should be enhanced and a resilience perspective integrated.
- Knowledge management, in particular dissemination of knowledge products, should be strengthened.
- Resilient recovery will be pursued as a means to sustainable development
- National Disaster Management Policy has been finalized.
- Gender issues are integrated into all disaster risk management policies, plans and decision making processes, including risk assessment, early warning, information management and education and training.
- The new organ gram for DDM (Department of Disaster Management) is approved and implemented. Specific institutional development targets for MODMR ((Ministry of Disaster Management & Relief)) and DDM (Department of Disaster Management) are developed and implemented with a focus on financial performance, monitoring and evaluation, technical assistance for DRR (Disaster Risk Reduction) mainstreaming.
- Targets for implementation of HFA 2 priorities and a more robust monitoring mechanism are accepted and institutionalized.
- National budget for DRR (Disaster Risk Reduction) and local level DRR (Disaster Risk Reduction) financing mechanism is established and funded.

It is to be noted here that, many of the projects implemented by GOB agencies do not have any theoretical construct in relation to address gender sensitivity in the project design and various elements. The Ministry of Women and Children Affairs (MOWCA) has taken an initiative under the BCCTF to help other ministries to integrate gender sensitivity in their respective project designs. Various NGOs have taken initiatives to train gender focal points regarding inclusion of gender sensitivity in project design and monitoring aspects. However, gender inclusion has been rather slow in projects led by GOB institutions.

Whilst there are a number of possible reasons for the absence of gender in mitigation action, the lack of information, gender-disaggregated data, knowledge and therefore also our lack of understanding of the gender differentiated impacts of mitigation activities and the potential role of women as agents of change significantly contribute to this omission.

The inter-ministerial body has recommended changes in the format of designing any development project (by any ministry) under Annual Development Programme and recommended integration of climate change issues along with gender issues, environmental issues and poverty issues in the format.

GenderCC highlights a number of interesting differences in the attitude of men and women as it relates to mitigation (GenderCC, 2013):

- Women are more willing than men to change their behavior in order to save energy and purchase low-carbon emitting products; however, they often know less about their own energy consumption and they reject measures that would burden them with extra work;
- Women and men have different preferences in terms of technologies to reduce greenhouse gases – a majority of women rejects risky technologies such as nuclear power and carbon capture and storage; and
- A majority of women prefers to rely on lifestyle changes rather than on technological progress only.

The specific issues of this study are Climate Change Adaptation (CCA), Low Carbon Development (LDC), and Disaster Risk Reduction (DRR) on the basis of Seventh Five Year Plan.

## **2. Female Victims of Disaster Get Lower Chance to Struggle; Women in Disaster, Bangladesh 2014; Bangladesh Disaster Report; Foundation for Disaster Forum.**

This article calls attention to demonstrate women as able or worthy to struggle with rather as victim in the crisis of disaster. It demanded that the whole process of policy making for disaster management gets hindered because of lacking of active participation of women in most cases. As said by this article, women take necessary strategic steps to eradicate the disaster related problems of the daily even after performing their duties in the adverse situation. And therefore, if we cannot involve women to find the remedy of this tough situation then the remedy has no scope to be most excellent. Social researchers are saying that women have their own adaptation strategy which lies beside the attention or unrecognized most of the time.

There is so many data to illustrate the vulnerable situation of women. These are given below:

1. In any disaster one male gets killed where the number of related dead women is four.<sup>1</sup>
2. More than three thousand people get killed by the hit of Sidr. In the list of dead people, the number of women is much high.<sup>2</sup>
3. In past twenty years, 15 thousands 719 people are dead because of disaster in Bangladesh along with the economic loss of 120 cores USD. Bangladesh has placed itself sixth among South Asian countries in case of tolerance to disaster resilience of women.<sup>3</sup>
4. United Nation has claimed that the provided information from Bangladesh government about disaster management does not include the contribution of women.<sup>4</sup>

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<sup>1</sup> The South Asian Women's Resilience Index; Prepared by Economics Intelligence Unit (EIU)

<sup>2</sup> Survey report of village and Human Development Organization at Fulpur, Mymenshig

<sup>3</sup> This index prepared by Economist with the assistance of Australian Aid on behalf of the international organization 'Action Aid'

5. Specialist quoted that more women get killed at the cyclone 1991.<sup>5</sup> When women present as victim then it gets apprehensible that the state or society does not have any effective solution for her. The pitiful sight of the homeless and foodless people due to natural calamity is a very regular scenario of coastal districts. Repeated cyclone, tidal surge and flood spoil cultivable crops, shortage of drinking water occurs. This type of situation increases the misery of women.

Where most cases women faces most damages at disastrous situation, the victim means the women should be taken into consideration with great importance in taking initiative to mitigate the loses.

### **3. Disaster Management Discourse in Bangladesh: A Shift from Post-Event Response to the Preparedness and Mitigation Approach Through Institutional Partnerships**

**C. Emdad Haque and M. Salim Uddin**

[<http://dx.doi.org/10.5772/54973>]

This study concentrates on the evolution of disaster management approaches in Bangladesh and the method of their implementation by mobilizing institutions as a case in the developing world. It examines the extent and effectiveness of institutional partnership from the perspective of a shift from a managerial approach to an approach using participatory, collective decision-making and resource-sharing to manage disaster risk. Since community members are the direct and most seriously affected victims, effective and sustainable partnership requires a change from a partnership approach based on equality to a focus on the community.<sup>6</sup>

The central concerns are to assess who decides, at what level, and how. There has been only very limited analysis of the shifting approaches and of how institutions at different levels are presently functioning in Bangladesh.

### **4. Disaster Risk Reduction Approaches in Bangladesh;**

**Rajib Shaw , Fuad Mallick, Aminul Islam**

**Gender and Social Exclusion Analysis in Disaster Risk Management (Chapter 16)**

**A.K.M. Mamunur Rashid and Hasan Shafie**

The paper aims at exploring the problem of a more equal integration of women and different excluded people in the disaster management in Bangladesh. The processes of discrimination, exclusion and marginalization produce asymmetric experience of disaster impacts for women and certain groups of people.

The social distribution of vulnerabilities tends to be concentrated on socially excluded people including women, children, elderly, indigenous people and religious minorities in the context of Bangladesh. Therefore, the paper makes the point that the analysis of socio-cultural factors can

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<sup>4</sup> Report (2011); ISDR; United Nation

<sup>5</sup> Quoted in the Conference of “Water Wave and Environment: Climate Change and the Future of South Asia”.

<sup>6</sup> Bhatt, M. R. & Reynolds, T. Community-Based Disaster Risk Reduction: Realizing the Primacy of Community. In: Haque CE, Etkin D. (eds.) Disaster Risk and Vulnerability: Mitigation through Mobilizing Communities and Partnerships. Montreal and Kingston, Canada: McGill and Queen’s University Press; (2012). , 70-90.



be made relevant at policy level to devise necessary and appropriate strategies to counteract exclusion processes in disaster management for inclusive outcomes.

This paper recognizes that women entail certain degrees of alienation in the disaster reduction or emergency response programmes. This distancing is also an outcome of the wider social processes within which these groups usually receive inadequate attention and are systematically disadvantaged owing to different reasons. The degree of discrimination, however, varies from one society to another, as do the forms that social exclusion takes. Understanding and measuring the disaster risks accelerated by social exclusion is quite difficult because of the limitations of any basic indicator sets on social exclusion.

#### Domain and dimension of gender and exclusion in Bangladesh

Domain	Dimension	Vulnerability components
Resources	Material/economic resources	<ol style="list-style-type: none"> <li>1. Lack of earning opportunities and low income.</li> <li>2. Low possession of necessities.</li> <li>3. No home ownership.</li> <li>4. Restricted access to other assets.</li> <li>5. No savings and high debt.</li> <li>6. Higher incidence of subjective poverty.</li> <li>7. Limited access to common property resources.</li> </ol>
	Access to public and private services	<ol style="list-style-type: none"> <li>1. Limited access to public services.</li> <li>2. Restricted access to utility services.</li> <li>3. Limited access to public transportation.</li> <li>4. Discriminated access to private services.</li> <li>5. Limited or no access to financial services</li> </ol>
	Social resources	<ol style="list-style-type: none"> <li>1. Institutionalization/separation from family.</li> <li>2. Limited or no access to social support system.</li> <li>3. Limited access to safety net programmes.</li> <li>4. Low frequency and quality of social contact</li> </ol>
Participation	Economic participation	<ol style="list-style-type: none"> <li>1. Differential access to labor market.</li> <li>2. Gender differentials in labor market outcomes.</li> <li>3. Prevalence of bonded labor.</li> <li>4. Undertaking unpaid work.</li> </ol>

		<ol style="list-style-type: none"> <li>5. Delayed and discounted payment for wage labor</li> <li>6. Low quality of working life</li> </ol>
	Social participation	<ol style="list-style-type: none"> <li>1. Limited participation in common social activities.</li> <li>2. Limited or no participation in decision making</li> </ol>
	Cultural participation	<ol style="list-style-type: none"> <li>1. Limited or discriminated access to educational attainments.</li> <li>2. Limited or discriminated access to basic skills</li> </ol>
	Political and civic participation	<ol style="list-style-type: none"> <li>1. Restricted and conditional citizenship status.</li> <li>2. Lack of political participation.</li> <li>3. Limited participation in civic and voluntary activities.</li> <li>4. Limited membership in civil society organizations</li> </ol>
Quality of life	Health and well-being	<ol style="list-style-type: none"> <li>1. Weak physical health and exercise.</li> <li>2. Poor mental health situation.</li> <li>3. Low life expectancies.</li> <li>4. Limited opportunities for personal development.</li> <li>5. Low self-esteem.</li> <li>6. Higher susceptibility to stigma and prejudice</li> </ol>
	Living environment	<ol style="list-style-type: none"> <li>1. Low housing quality.</li> <li>2. Higher incidence of homelessness.</li> <li>3. Lower neighborhood safety.</li> <li>4. Low neighborhood satisfaction.</li> <li>5. Limited access to open space</li> </ol>
	Crime, harm and criminalization	<ol style="list-style-type: none"> <li>1. Low social safety.</li> <li>2. Victim of crime.</li> <li>3. Low subjective safety, i.e. under threat and fear of crime.</li> <li>4. Exposed to eve-teasing, bullying and harassment.</li> <li>5. Victim of discrimination</li> <li>6. Unaware of legal rights &amp; victim of imprisonment</li> </ol>

Table 1 Domain and dimension of gender and exclusion in Bangladesh

The disaster management model in Bangladesh is based on three major elements:

1. defining and redefining risk environment;
2. managing risk environment; and

### 3. responding to emergencies.

However, at policy level, this model acknowledges the women and other excluded groups as the most vulnerable groups in disasters.

The analysis in this paper sheds light on the prevalence and persistence of social exclusion experienced in Bangladesh with regard to disaster risk management. A significant portion of the population, including the women, in Bangladesh experience social exclusion at some level. This paper makes the point that there is a growing need for policies to address the issues of social exclusion in disaster risk management in Bangladesh. With equally importance, it supports the argument for a more inclusive model of support aimed at women, excluded people and communities.

## **5. Disaster Resistance and Sustainable Development**

**An article published on 31 March 2015 at a daily news paper named ‘Somokal’.  
Dr. Mahbuba Nasreen; Director and Professor of Institute of Disaster Management  
and Vulnerability Studies; University of Dhaka.**

This article depicts the third world conference on Disaster Risk Reduction was held in Japan. In this conference ‘Sendai Declaration’ was finalized. It is expected that next ten years the member states of United Nations will conduct their courses of disaster management according to this declaration. Dr. Nasreen emphasized to inclusion of private sector in the process of disaster management. She continued with explaining the private sector as investment rather corporate social responsibility. Many successful examples of private sector and also many potential and fruitful areas are showed where this sector can play a vital role in disaster management process. Dr. Nasreen explained the necessity of togetherness of private and government sector in order to reduce the risk of disaster.

## **6. Conveying the Warning to Women is an Emergency**

**Women in Disaster Report; Bangladesh Disaster Report- 2014; Disaster Forum**

This study describes that Bangladesh ranks fifth in the world on the list of countries vulnerable to natural disasters. The country has not yet fully recovered from the immense losses incurred during the cyclone Sidr of 2007 and the cyclone Aila of 2009. However, Bangladesh has earned degrees of successes in combating any natural disaster. According to the information preserved by Bangladesh Bureau of Statistics (BBS), during the period of 385 years, from 1584 to 1969, the unnatural storms visiting the country numbered 27. On the other hand, during the period of 39 years, beginning soon before the independence of the country in 1970 to 2009, the number was 26. In the last 50 years, the speed of the wind during the most damaging cyclones rose 140 – 225 kilometers per hour. Out of these cyclone, four were most devastating - during the years the 1970, 1991, 2007 and 2009.

It argues that, the people’s representatives will remain on the side of the people when a crisis arises, is natural. Whatever powerful the effects of a given natural disaster can be, the people have to face that united and the women have to be within this fold.

This study states that under the normal social value system in Bangladesh, the male folks are the principal earner in the family. However, it is the women who take care of al household chores including child care, looking after the elderly members in the family, cooking and feeding the family members, gathering, managing and safekeeping commodities, managing the poultry birds

and cattle-heads, producing necessary vegetables and fruits in the family orchard, even collecting and storing food crops for household consumption and for business or deeds for next season. Therefore, she would know the best way possible to preserve these necessary household assets when a disaster befalls.

This study narrates that as soon as the woman hears warning signal that time she mainly concerns to take the children and sick or elderly persons to place of safety. The next step that she would take such as, take the cattle-heads along with her or set them free so that they can at least find a place of safety on their own. Dry food-stuff like, rice, pulses puffed and flattened rice, sugar or other necessary materials including fuel, wood, match-boxes, water purifying alum, first-aid matters (gauge, bandage, oral saline, liquid anti-septic, some basic medicines). These materials collected in large water-proof bags and stored in dug-holes, underneath the surface at a convenient location. These measures are taken so they can fall back upon until better help is received from outside – government or other sources.

These arrangements are made painstakingly by the women on their own initiative. Therefore, in these cases sooner the warning is conveyed to the women better it is for the community to undertake the disaster preparedness actions as a whole. She then can take necessary preparedness actions more conveniently for safeguarding her household. Otherwise, she along with the family may have to spend long time without a shelter outside her home.

**7. In Disaster Period Have to Keep Special Sight for the Protection of Women  
An Interview published on 17 December 2015 at ‘Prothom Alo’, a daily news paper.  
Khandaker Makkadem Hossain, Professor, Institute of Disaster Management and  
Vulnerability Studies; University of Dhaka.**

This interview illustrates the social position of women in Bangladesh. The women in Bangladesh are engaged in bearing social and economic burden: taking responsibility for domestic tasks such as producing and cooking food, fetching water, looking after children and caring for the sick and elderly. Khandaker Maokkadem Hossain focused that Women and children are rather confined to homes and are less mobile than the males, which increase their vulnerabilities and sufferings during disasters. He also included that Women are often vulnerable to sexual harassment in pre and post disaster situation. The hooligans and looters took the opportunity of the people’s distressed situation for robbery and sexual violence. As a result, in anticipation of potential sexual offence against them, young women and adolescent girls are not preferred to go to the cyclone shelters in order to avoid staying with males (strangers).

In fine Khandaker Makkadem Hossain added that to protect women from various violence government took various policies and initiatives which contributed to reduce the rate of violence against women. However, he emphasized that it is important to continue all policies and initiatives taken by government and also necessary to empower women in every sphere of the country.

**8. It Is Important To Have Gender-Wise Data On Disaster; Women in  
Disaster, Bangladesh 2014; Bangladesh Disaster Report; Foundation for  
Disaster Forum.**

This article emphasizes on the importance of having gender perspective data on disaster, along with mentioning the indispensable areas of policy making. According to this article, it is high time concentrated on disaster management from a gender perspective. It depicts the women who survived the disaster, especially women and girl child, were under serious security threat. There is also a risk of gender-wise hostility. Any disaster is followed by displacement, mental pressure and mental problem in comparison with family level harassment. These add to the sufferings of the natural calamity itself. While going to the shelters during a cyclone or storm, many women or children get lost from the family and are subject to victimization.

Awareness regarding these imminent dangers can be offset if there is enough data. These data also help in preparedness during a disaster in places where disaster has already struck previously. A difference in behavior and need among male and female can be seen during relief operation, which follow any natural calamity.

For example, at first, the list of lactating mother and pregnant women were prepared in all the islands affected by any form of disasters. Then they were given priority while providing health services. The team of first responders identified areas where women faced problems in receiving relief materials and in proper distribution of wealth. The shelters were prepared keeping in mind specific requirements of women and their security which included separated toilets for men and women, and arranging family-wise separate area for resting and sleeping.

So, gender-wise information gathering is an important pre-requisite for effective management of humanitarian aid. The responsibility of ensuring accurate information of gender-wise goes to not only the proponents of gender, it is the whole gamut of humanitarian workers.

Now it is appropriate time to ensure successive analysis of all activities with special emphasis on gender.

## **9. Natural Disasters: Socio-Economic Impacts in Bangladesh** **Mohammad Morad Hossain Khan, Assistant Professor, University of** **Liberal Arts Bangladesh (ULAB).**

**Nazmun Nahar, Senior Lecturer, Northern University Bangladesh.**

This paper intends to depict the socio-economic impacts of natural disasters in Bangladesh. It contains information about the death of many lives almost every year and also about the risks of poverty, unemployment, disempowerment in the country, which might be a global problem in the future. It also argued that natural disasters often cause food crisis in the country as well. Due to natural disasters, many people have to depend on aids since they lose almost everything in the natural disasters like cyclones or flooding. It also continued that in the context of globalized environmental degradation, Bangladesh is one of the major victims. Bangladesh has been struggling to cope with this situation for a long time. But natural disasters as well as effects of climate change often hinder the development of the country as well as many other states. In fine it wanted to illustrate that such problem has to be solved globally rather than locally.

In this paper, the focus was how Bangladesh faces natural disasters and how much Bangladesh is able to adjust with the situation.

## **10. RESILIENT Bangladesh**

### **UNDP Bangladesh Annual Report 2013 – 2014**

This report presents a snapshot of the development results that UNDP have achieved with their partners and with the government and people of Bangladesh. The results provide evidence that UNDP Bangladesh is well-aligned with the new UNDP Strategic Plan 2014–2017 thematic areas and approaches.

As per this report depicted Bangladesh has made impressive progress in human development in the last decade. Identified as a rising star in the 2013 Human Development Report, Bangladesh has either attained—or is on track to attain—the vast majority of Millennium Development Goal (MDG) targets. For example, Bangladesh performed strongly in halving extreme poverty and it achieved gender parity in primary education (only the environmental indicators lag behind targets). Bangladesh's 2013 Report on the Post-2015 Sustainable Development Agenda reaffirmed the country's commitments to achieving proper, inclusive and sustainable growth, including a targeted focus on good governance and gender equality.

#### **Inclusive and Effective Democratic Governance**

UNDP's innovative reforms helped strengthen the government's efforts to enhance MDG-based service delivery, thereby increasing accessibility and delivery of public services to reach underserved and marginalized citizens faster. UNDP, in strong partnership with the government and development partners, supported novel e-governance services, which provided over 4 million people per month with online access to public services (e.g. land records, birth certificates). A national survey found that these services reduced average wait times from 7 days to 1 hour and reduced average travel distances from 35 to 3 kilometres. UNDP-assisted programmes also led to significant improvements in access to justice.

The pilot village courts helped 30,550 poor people receive local, fast and inexpensive access to justice. The village court system achieved a 154 percent increase in the number of concluded cases over 2011 figures. UNDP and its partners' evidence-based advocacy and testing of innovative approaches were instrumental for the expansion of the village courts' powers and the requirement that at least one woman sits on each panel. A midterm evaluation identified the village courts as an example of an international best practice and a model for national scaling up.

#### **Targeted**

By conducting needs and risk assessments to identify the most vulnerable peoples and communities, UNDP-supported programmes targeted the poorest of the poor, the most vulnerable women and men who experience the greatest inequalities and exclusion. Recognizing the increasing levels of urbanization and urban risk in Bangladesh, UNDP, in partnership with the government and development partners, continued to help 3 million urban poor to lift themselves out of poverty. The communities themselves developed action plans and managed contracts for delivering services to meet their specific needs. In the CHT region, the UNDP-supported programme, in partnership with the government and development partners, targeted the poorest, vulnerable rural communities and ethnic minorities to address gaps in overall socio-economic conditions and to protect and promote their human rights.

## **Gender Equality:**

Guiding all UNDP's interventions, gender equality has been both a means to promote inclusive and sustainable human development and a goal itself. For example, the urban partnership for poverty reduction programme empowered poor women by integrating them into community structures, providing apprenticeships and grants, enhancing their leadership skills and expanding their opportunities to participate in governance. As a result, 90 percent of local community structures' elected leaders were women. Further,

23 urban poor and extreme poor women ran for city offices (nine were elected). A series of UNDP-supported programmes contributed to addressing gender-based violence, including enabling the Bangladesh police to increase the number of Victim Support Centres from two to seven (four of which are now funded within the government police budget). At the policy level, following gender analysis and consultations with women's groups facilitated by UNDP, provisions that promote gender equality and women's rights were included in the new National Social Protection Strategy, the Village Court Act, the Brick Manufacturing Act and the Bangladesh post-2015 sustainable development agenda.

## **Poor Women Become City Councilors**

As nine newly elected women took their oath as councilors, they expressed their dedication and commitment to carrying out their duties and bringing about change for urban poor women. Many highlighted women's lack of decision-making power, restricted movement and a lack of respect (aggravated by regular verbal and physical abuse by family members).

Jahanara Begum, a new Councillor in Barisal, said, "Before the [UNDP] programme, we were only housewives. We could not talk easily. Now we can speak anywhere, can represent in various workshops, seminars, and meetings. We can also easily mix with all kinds of people. We have received different trainings from the programme, so we have been more capable to face any situation in the community."

Hasna Hena, elected as councilor of Khulna, said, "In 2005, I was inspired by my involvement with the Baira Bazaar community group and I became interested in elections. After becoming the group's Chairperson, I devoted myself towards working for women in poverty. Gradually, people started recognizing me, which gave me the confidence that I might win the election against other competitors, if I tried. This feeling inspired me to run in the elections."

Monira Khatun, who won her seat in the Khulna City Corporation elections, explains, "In my community there are many women who are not allowed to participate in decision-making processes and some of the women are even deprived of their basic rights. As a councillor I want to bring these deprived women into the decision-making process."

## **Promoting women's leadership and decision making at the local level**

UNDP helped build the leadership skills of 400 women local government leaders by helping to establish 214 Women Development Forums that served as networking and partnership platforms and enhanced women's capacities and collective institutional positioning. With UNDP's technical support, Local Government Councils submitted 86 development schemes under the Upazila Fiscal Facility. Twenty-five of these schemes were submitted by women; 37 focused on gender dimensions (e.g. developing a childbirth facility, constructing separate toilets for girl students at local high schools and recording pregnant women's blood group in order to match them with potential donors).

UNDP advocacy and capacity-building efforts contributed to enhancing the roles of female elected leaders. Post-training documents and surveys recorded that gender and masculinity training for male local authorities resulted in positive feedback and changes in the perception of gender roles among Union Parishad male members. For example, records show that 243 early marriages were stopped and nearly 900 family conflicts were mitigated. Notably, a gender network in the civil service was formally registered in 2013; it passed gender guidelines to address the challenges women face in the civil service.

### **Faster, Fairer, Gender-Responsive and Accessible Justice**

On average, Bangladeshi citizens can expect to wait five years to receive justice from the formal legal system. Many cases take over a decade to reach a verdict; an estimated 2.7 million cases are awaiting resolution. Barriers to more timely resolution include the slow processing rates of cases, the accumulation of unprocessed cases, overly complex procedures, the lack of effective case management, outdated laws and an absence of coordination and cooperation between justice-sector agencies. This backlog places considerable pressure on the sector, hampers access to justice and results in millions of people throughout the country being excluded from access to quick and fair trials. This is particularly acute for the poor that face considerable obstacles if they require legal redress.

However, UNDP support, in partnership with the Government of Bangladesh, the European Union and UKaid, is helping to change this situation. In 2013, UNDP supported Bangladesh's efforts to identify effective strategies to reduce the waiting time for legal cases and broaden citizens' access to justice. To achieve these ends, Bangladesh tested different ways to reduce case backlogs, expanded the village court system to provide local-level dispute resolution, improved criminal court coordination and civil court effectiveness and drafted amendments to outdated laws. As a trusted partner, UNDP was allowed to monitor daily court routines (including the Supreme Court) and was given full access to case files. Having maintained a long-term and sustainable focus throughout, the government is funding the scaling up of these innovative UNDP pilot programmes.

### **Women's Access to Justice**

A women-friendly environment provides women with equal opportunities to access justice services. In three districts in 2013, the number of women filing cases rose by 20 percent, partly as a result of UNDP support in setting up women-only waiting rooms. In addition, UNDP-supported case management now gives priority to justice for women and victims of violence against women.

Women are increasingly participating in village courts. In 2013, nearly 6,000 women sought remedies in village courts. In district courts, women make up over 10 percent of panel members (up from 8 percent in 2012).

With UNDP programming support, 23,000 poor women now have access to a help hotline. In 2013, over 1,000 victims of violence asked for and received help or legal aid. As a result, nearly 250 early marriages have been stopped and almost 900 family conflicts have been mitigated.

### **Indicative Gender Equality Results**

#### ***Supporting Formal and Informal Justice Mechanisms***

33,000 women received direct access to speedy and quality justice, a 20 percent increase in the number of women filing cases over 2012. UNDP and its partners introduced facilities for women



and children in pilot district courts (e.g. women-only waiting rooms). Further, case management committees now give priority to women and victims of gender-based violence, and in 2013, over 1,000 women received legal advice to file a case after calling up a legal aid hotline in two districts (a 20 percent increase over 2012 levels).

#### Advancing Gender-Responsive Policies

The Village Court Act included a gender quota to increase representation in village court panels. Furthermore, the Government of Bangladesh's post- 2015 report included a dedicated goal on gender equality and women's empowerment; all other goals mainstream gender equality and women's empowerment and include targeted indicators.

The National Human Rights Commission, with UNDP and partners' policy support, played a leading role in developing two draft laws related to prohibiting child marriage and to anti-discrimination.

#### Promoting Women's Economic Empowerment

UNDP managed the Urban Partnership for Poverty Reduction programme in partnership with the government, UKaid and UN Habitat. The programme enabled 135,000 urban poor women to take steps to overcome poverty and to become economically active.

UNDP programmes helped to turn climate change challenges into economic opportunities by helping create 68,190 green jobs and livelihoods for women. The number of women working in the green brick kiln industry is more than three times the number in traditional brick businesses. The green brick kilns also provide women with gender parity in wages and employment quality.

#### Increasing Women's Disaster Resilience

By establishing community assets in coastal risk areas, UNDP and partners helped enhance community risk and resilience for 14,000 households (70 percent of which were led by women).

#### Empowering Women and Promoting Gender Equality

UNDP Bangladesh's well-recognized gender equality and women's empowerment efforts will be significantly reinvigorated in 2014. UNDP, often with partners such as UN Women, will continue to use strong analysis and concrete evidence to invest in and to design women's empowerment programmes.

In fine, this report emphasized on both mainstreaming and dedicated efforts which will be needed to address those social norms and institutional practices that prevent women from fully realizing their potential and making economic, political and social development contributions.

## **11. Good Governance and Disaster Management Bangladesh Disaster Year Report- 2013 Disaster Forum, Dhaka, Bangladesh.**

This study intended to point out the relationship between good governance and disaster management. Another focus of this study was the role of women in disaster management and good governance.

With the view of this study 'disaster management'- could be defined as the organization and management of resources, responsibilities and accountability for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters. The important factor in managing disaster is to define the types of catastrophe that could probably disrupt life and living. A progressive strategy for managing disasters ensures that loss of life and property is reduced in an occurrence of disaster event.

Governance is an exercise that shelters the disaster management process. Creating public awareness, political determination and strengthening capacity are factors that construct the disaster risk reduction (DRR) as essential in all development sectors.

Though this correlation is accepted theoretically, it is rarely seen in practice. Many disaster prone countries including Bangladesh have not established this into development policies, planning and implementation. This leads to new and heightened patterns of disaster risk and loss of lives and livelihoods.

In order to mitigate the impending risks in future and protect people within their own community, governments have adopted the Hyogo Framework for Action (HFA). More than 150 countries have adopted this in 2005. HFA focuses on the integration of risk reduction an essential component of national development policies and programmes.

Another aspect, which is utmost importance in reducing risk, is community – based disaster management. The connections that are maintained in a community are necessary to develop, implement and maintain an effective awareness of the affected people. This can only be achieved if the alerts reach individuals at risk and are easy to understand, resulting in appropriate response. Diagram of major parameters of good governance is given below:

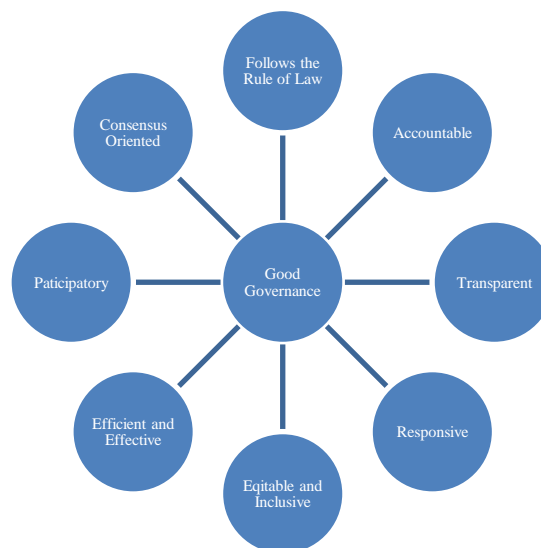


Figure 1 Good governance and disaster management

### **Community based approach Towards disaster and good governance**

During the study of this report, the team also noted on the level of the quality of the projects and their capability in maintaining the steady progress. It was conceived by the local school committee that representatives form World Bank and LGED rarely visited the remote areas and as a result the contractors use inferior quality building materials. In some areas the school management committees were involved in the supervision of the projects but though there was a requirement to form a school management committee to supervise the construction of cyclone shelters, there was no committee formed. On the other hand, in cases where active participation of the school committee was present the quality of the project work was very good and the contractor could not attempt to deliver low construction materials.

## **Role of Women in Disaster Management and Good Governance**

Disaster or risk whatever form we view the dangers of natural calamities, in all aspects women are the most vulnerable and affected entities. In times of natural disaster and threat to life is experienced by the women who to help. However, unfortunately it is the women who come forward and give out their hands to help but unfortunately it is those same women who are treated as secondary citizens and kept behind the façade of men, who are not recognized and focused for their efforts in disaster period. Women are always seen to come forward with their ideas and activities in reducing risk factors. Studies conducted on the cyclone and flood disasters of 1991 disclosed that the death rate of women between the ages of 20-44 years is 71 per thousand while for men it was 15 (UNEP 2005). Death is not something that can be an element for comparing but the study depicts that women are the more vulnerable than men during any natural disasters. The studies revealed that the news of disaster and the alert was conveyed among the males at the work place so they took measures but the women were not consulted and in some places women were not allowed to go out alone without any male relatives, so they were trapped in the disaster as they waited for their male family members to come to their rescue, which did not happen. Hence the higher number of women death rate in the disaster.

In Bangladesh we have a picture of very common nature, which is, men will work outside and women will be restricted to household activities. This cultural and traditional notion is ingrained among children from a very tender age which becomes almost impossible to break when they are adults. It is viewed that women should always care for families within the boundaries of their home and their male counterpart who are superior to them will provide for them working outside. According to a proverb men are considered as the God's gift to women to rescue them from any maladies, which in reality is quite the opposite. The efforts of women are rarely evaluated or documented.

In the events of the after affects of disaster, it is common phenomena that men lose their earning and in some cases become home bound (in terms of flood or similar risk situation and sickness), which results in starvation, as we know that relief or help takes time to reach the affected people. It is in this time of need that women take their solitary and bold step to care for family and community. Along with the household work they ensure food and water for family through different activities, including seed preservation, rearing poultry, gardening and most of all social networking through various schemes and programmes. They influence and guide family members and neighbors to overcome the period of distress.

This paper concluded that the system of reporting, auditing, monitoring and parliamentary standing committee's hearing should be strengthened to establish accountability and thereby good governance in Bangladesh.

Along with it we need inclusion of common people and grass root level survivors in the decision making process for facilitating participation in this arena.

## **The Necessity of Studying Disaster Management Policies in Political Science Context**

The disaster management from a strategic perspective requires a move towards sustainable development. To ensure sustainable development it requires assuring good governance. The UN and the global development community have enunciated Sustainable Development Goals (SDGs) for the post-2015 development agenda. The Rio+20 Conference on Sustainable Development, inter alia, reaffirmed the principles of the Rio Declaration on Environment and Development. In light of the global commitment towards Sustainable Development, Bangladesh too is focused on ensuring sustainable production and consumption, as well as ensuring sustainability of disaster management. Thus, good governance should be first step in order to make certain proper disaster management policies in Bangladesh.

Therefore, it is necessary to study disaster management policies in political science context.

### **Exception Point of My Study than Other Researches**

The reduction of vulnerability of women has become the core element of disaster risk management and, therefore, constitutes an important common ground between two areas of policy and practice. The severity of the impacts of disasters and extreme climate events depends strongly on the level of vulnerability and exposure to the event. Therefore, understanding the multi-faceted nature of vulnerability and exposure is a prerequisite for determining how disasters contributes to the occurrence of disasters, and for designing and implementing effective adaptation and disaster risk management strategies. Good governance is highly obligatory for implementing effective adaptation and disaster risk management strategies. In order to ensure women participation in policy making, to increase their attending in training for disaster management, take into account their experiences and sufferings in existing policies and make all initiatives transparent such as relief distribution to women, protecting women from physical and mental harassment and so on, it is necessary to maintain a certain process. The best process is good governance where democratic process, transparency and accountability are ensured. Good governance will guarantee women's participation and raising their voice in every sphere of life and women's effective contribution will ensure successful disaster management policies in Bangladesh. However, good governance is fully related with Political Science discipline. This study is aimed to explore To explore how women are affected by disaster, to identify the vulnerabilities and difficulties that result from disaster for women, the policies taken for women in disaster management plan in Bangladesh, to explore whether the women are benefited by these policies or not, the scope of women in the process of disaster management where they can play effective role, and to identify the policies needed to be implemented for women. All of these objectives are essential measurement of good governance. Thus, this study is diverse than other studies.

Owing to the diversities in conceptual frameworks and disciplinary views, approaches to address the causes of vulnerability also differ. Moreover, there is high agreement in disaster literatures that the women, children, elderly, or indigenous people as to be the "most vulnerable", but there are hardly any indications as to what these groups are vulnerable to and why. Failure to properly integrate women's concerns and issues into decision making has added to women's vulnerability. The implementation of policies and plans to improve gender equity was limited mainly due to weak institutional mechanisms and leadership, overall for the absence of good governance.

In the above context, appropriate policy and institutional capacity building for sustainable disaster management, are crucial at all levels of government, especially with a greater emphasis at the local government level is now a crying need.

# **Chapter 5**

## **Expert's Opinion<sup>1</sup>**

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<sup>1</sup> Women in Disaster; Bangladesh 2014; Bangladesh Disaster Report; Foundation for Disaster Forum

## 1. ‘Not Yet Women Friendly: The Process has Begun Though’ – Dilruba Haider<sup>1</sup>

### *Where is our problem in Disaster Management?*

If I bring in the issue of gender to focus in the discussion of problem areas of disaster management then I must say that we have not yet been able to render the issue of gender in disaster management a proper connotation. The consciousness of importance on gender issue may not have spread to everyone nevertheless it is in the minds of many people. But during the implementation stage problems crop up.

First of all, we are not properly aware about the concepts of gender. Gender indicates not just women, that indicates men and women both. There is some difference between men and women, also difference in risk taking and to reduce the risk. However, many of us could not identify such differences.

Second, it does not come across in our minds that the concept of woman has to be viewed different. In our society there is no real existence of women. At the same token, we are not aware how to develop the condition of women. Perhaps we do not have adequate knowledge on that respect.

### *What is the present state of women participation on policy level?*

Some of the work has been done very slowly. For instance, women representatives are present in disaster management committees at local level to national levels. But in terms of sheer number and quality of participation, it is too low to mention. The number of disaster management committee members is 35 and the number of women member is only 3 to 4.

From the study of Bangladesh Centre for Advanced Studies (BCAS), it was found that one-third of women members do not or cannot remain present at union Disaster Committee meetings. The two-third remaining present in the meeting, do not take part in the proceeding of the meetings.

On the other hand, we keep saying in different types of seminars and meetings at home and aboard, that we are active in the area of gender issue. However, the reality is that we have not been able to accomplish anything substantial yet in the arena of gender.

### *What are the essential points should take into account in policy making about relief distributing?*

It is actually a way to show that we include women in disaster management. The fact is that the names of women were collected to fit in the list of beneficiaries.

- Woman has to start walk all the way to collect relief materials carrying her baby in her lap all the while. She has to walk all the way because she cannot afford to spend rickshaw fare.
- She has to come to relief center early in the morning walking. She has to wait for relief throughout the day, under sun or shower with her child. May be she has another child at home waiting to be fed, though she has not been able to cook for the child or take care household chore.

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<sup>1</sup> Programme Coordinator (Gender and Climate Change), United Nation Women

- After having relief she faces the obvious question of carrying the heavy sack of relief materials to home. It is seen in many photographs that around 60 years old lady is moving with a heavy sack of relief material.

We are happy that we have been able to show a rosy picture that women are returning home with big bag of relief. However, at the end of the day end result is a big naught.

***What are the major social barriers for women to lead in disaster management?***

The social barrier of women is virtually invisible. Although women are in disaster management committees, but importance of their existence is subdued. They only confirm their presence at the meeting to put their signature. Besides this, most female members of the committee are also member of Union Parishad. Wife and sister of many influential people were elected as union member. Therefore, they have no accountability of the mass people and they do not have sufficient courage to speak out the right point. I think now they need appropriate training unless they will have to remain invisible in the society.

***There are individual responsibilities in disaster management committee. Are the members aware of their responsibilities?***

No they are not. There are 35 members in disaster management committee. There are places where members do not even know that they are the members of that 35 members committee. The committee is only documented, many of also do not know about the committee. There are also so many another problems like they do not arrange meeting regularly except on emergencies. It is also true that on an emergency this committee is very active. However, still in many place there is hardly preparedness plan formulated by the disaster management committee.

Besides this, Bangladesh Disaster Management also provides training in many Union Parishad and the members are also aware about their responsibilities.

**2. ‘We are Trying; We have Progressed a Quite a bit’.**

**Hasin Jahan<sup>2</sup>**

***What are the main constraints in disaster management?***

There are two aspects of disaster management, one is immediate solution to problems and the other is post-disaster actions.

In all cases of disaster, women are the most vulnerable including children and old women.

- Absence of toilet facilities during a disaster is the most glaring example. This becomes an acute problem during any disaster because several people stay together in a shelter.
- A second major problem is that whenever people become helpless and hopeless during a disaster, women especially young girls and women become most vulnerable to the lusts of greedy and unscrupulous men who try to take full advantage of their helplessness. They become prone to sexual abuse and harassment.

***Since so many people stay together in a shelter during a disaster and women faces various problems, then what should be the design of a shelter home?***

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<sup>2</sup> Country Director, Practical Action



Firstly separate arrangement should be made for men and women and separate toilets for women should be constructed in the upper floor. During early days, the model of the relief centre constituted toilets in the downstairs and accommodation in the upper floor. Toilets were situated quite far and during flood, it would go under water.

A delivery room should also be constructed because sometimes it is seen that due to psychological pressure, pregnant women give childbirth much ahead of delivery date.

Another thing is that since there may be problem of supply of drinking water, so some of in-built system has to be developed and constructed.

It is quite tough to implement my suggestions due to lack of resources. Therefore, we may remodel the schools situated in the area and redesign a bit. These schools can then be used as alternative relief or cyclone centers.

***What are the necessary steps to make disaster management effective?***

Since we are a poor country, we cannot think of a separate force or volunteers at this moment. We may think of providing training to students. This has to be included as a part of course curriculum. They will know and learn how to face and fight disaster. Then each of them will become an asset. If this can be done, we will have a huge workforce. If our girl students are only given proper training, they will play significant role during disaster.

***Why women are keep silence during the time of policy implementation of a disaster committee?***

For this, we have to understand our social reality. Women usually lag behind as they cannot contribute much in these cases. Therefore, their participation remains as a token participation.

However, I do not see token participation as a negative phenomenon in the early stage. At first, she has to give the access to say or to do something. A woman also has to provide proper training and have to be given access.

This is how she will move from the position of taken participation to the position of active participation.

***Do you think this will be effective at the Union Parishad level? In certain cases, a father and a daughter may be members of the same committee. The daughter may not be able to go the meetings and may not be able to talk due to the presence of her father, so she is not able to show her competence. So, how can she become active?***

We said that we would need young girls and women in those committees. It is then seen that they have been performing much better and they are more vocal. It is no more truth that girl's do not speak out in front of their father. These are changes happening and they are becoming educated, they are going to schools and are learning to talk, to express their views and opinions.

Therefore, before talking to the girl, we have to talk to the father and motivated him to give this access to the daughter.

***Can we make out disaster management process women friendly?***

I do not consider our disaster management process as any systematic process at all, no question of being women friendly. We have to start the process of disaster management much before the beginning of a disaster.

However, we already have prepared ourselves to fight any danger or disaster, which may be forthcoming. The question of being women friendly is a far-flung idea. We have to first make out disaster management system a human friendly one.

### **3. 'Women Preserve Seed During Disaster?'**

**Farida Akhter<sup>3</sup>**

#### ***Do we have women friendly disaster management system in our country?***

If I define disaster in rural aspect then the criteria of disaster would be different like flood or tidal surge. Flood is a type of disaster and water log another. Sometime people from flood affected area have to face waterlog for 10 to 15 days or even more. We do not take into cognizance their sufferings actually.

There are some special needs of women and a norm to address those needs has not yet been formed. Generally, those who take the responsibility for distributing relief materials also distribute food, drug and safe water. They imply a generalized mind set. They do not think specifically about women while distributing relief.

We have to keep in mind that a woman does not merely a woman. She can be a pregnant mother, may be a woman with a new-born baby, of old age and even an adolescent girl. But we never consider these differences during allocation and distribution of relief for them and take a one way approach.

When we are not thinking separately for women, we are then deciding our own fate. Women have their knowledge on this. They are implementing their knowledge. For instance, if woman can manage fire, they are then definitely able to make some food. They can manage food from water also. For example, they can collect aquatic plant, some other plants that is available in rainy season, lotus, fresh turmeric etc.

Overall, I must say that disaster management is not women friendly only but we never even show respect, importance to their knowledge. We are also not interested to know what women did.

#### ***In your experience, what is the role of women to preserve seeds, especially their activities during and after disaster situation for its preparedness?***

At first I would like to say that, women preserve all seeds. They know how to preserve it. It may be in a corner of a room, in an earthen pot, on roof top and such others. Therefore, during disaster situation if male members opt to go to cyclone centre then she may not be in hurry to accompany him as she has to think about her seeds.

#### ***What should we do to transform disaster management process as women friendly?***

We have to collect proposals on different disaster, like cyclone, flood, river bank erosion from affected rural women.

We have to remember that these problems are daily hazard for women. Therefore, we must not think to help them to make it a 'one shot game' by helping them for a week or two. We have to plan on yearly basis disregarding to meet the temporary immediate needs only.

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<sup>3</sup> Executive Director of UBINIG; Publisher of Narigrantha Prabartana

We need to make safe-keeping of sources for emergency needs like food and water. We should create some opportunity for women to work based on the indigenous knowledge and their own experience.

We all should work together for disaster management. The government on its part should review the weakness that is there with them.

#### **4. ‘Decision Should be Taken Regarding Women After Talking to Women’.** **Murshida Akhter<sup>4</sup>**

##### ***What are the major problem areas in disaster management?***

The main problem is non-availability of correct information at the right time. Therefore, I feel that due to lack of timely information reaching to them, women cannot reach the disaster centers in time. Simultaneously I have to state that there is less possibility of our women population to grow up in an enlightened manner due to social inhibitions. Due to this lack of awareness, a woman even does not remember to go to a shelter during calamities. She should have clear understanding, whenever she hears about any disaster approaching; she must reach the shelter within a specific time even if the elders permit or not.

Another thing is, since our women are even not safe during normal time, chances of falling in danger increases during periods of disaster. Even she may have to stay on the road in some cases. Safety becomes a less important issue during such period.

In the disaster shelters, women are forced to use the same toilet like the men. The doors of the toilets supplied during a disaster are usually made of plastic sheet or gunny bag, which can hardly ensure any privacy. Due to this reason, it is not possible to know if somebody is using the toilet or not. Thus, women try to avoid using such toilet or have keep somebody standing outside the door so that as one can enter.

I feel that there should be different definition of terrorism, torture. During a disaster, women are subject to privacy issues, which are also a type of act of terrorism. This issue should be seriously considered by the organizations involved in disaster management.

Recently, some organizations have started to work and also think about the requirements of reproductive health. However, they supply materials, which only they like. However, the affected women can clearly state their need. Say, the need for sanitary napkin. This should be necessary, but mostly this is not supplied. These organizations should try to ensure that these necessities are supplied in required quantity aid in a proper manner.

I have personally visited many flood-hit areas. Women in those areas go to various places in either the early morning or in the evening by wading through the floodwaters. The toilets supplied by several organizations are so smelly and unhygienic that nobody feels comfortable to use those. I have seen in what inhuman conditions, they are forced to live. We have to remember that disaster management does not only mean supply of food items. Woes suffered by women are much more than others.

##### ***What are the steps now need to be considered for distributing of relief goods?***

At first we have to fix our priority. We will provide assistance firstly to those families, which are headed by a woman, and there are many family members who are female. It is not good to keep

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<sup>4</sup> Humanitarian Programme Manager, OXFAM

women standing in long queues for a long time. In many places it is seen that the women is carrying the child and standing in a queue, the man in the family may even not be working anywhere. We have to recognize whether we are giving relief to the women or whether we are giving them pain and anguish.

Another observation is that while women are standing in queues, male colleagues are distributing relief materials. The woman who comes to take relief may not be familiar of accepting things from an unknown male person. A male official will hold her hand and take fingerprints, is mostly unacceptable to rural women. We even do not bother whether she likes it or not.

It should always be remembered that the point of distribution should be near to her. Relief should be given at a certain specific place, from morning until evening. Timing of distribution must be maintained strictly.

The following points need to be considered before starting distribution of relief materials:

- What thing is needed first and how a woman wants it to be given to her that is the mode of supply.
- Plan the distribution in consultation with the beneficiaries.
- Make arrangement of some private place where the mother's may breastfeed or where women may change their clothing.

In whatever form we may want to provide employment to the women, their dignity, and safety should be considered first and plan has to be chalked accordingly. This has to be made in consultation with them and do not impose on them unilaterally. We also have to respect and maintain social norms and taboos. If we start an intervention programme it should not create an obstacle in any family.

### ***Why there is no involvement of any women in the activities coming out of these discussions?***

It is not true that this is totally absent. Women are represented in three stages from where the national coordination works starts. We accept women as receivers but we forget that women are able to manage. Women are working in many organizations but most of them are in the frontline. Women must be represented at the level of decision-making. This has to be incorporated in the organization mandate. It will not be effective and women friendly if you are working with women issues but not co-opting them in the management. Adequate training should be arranged for their development, so these measures must be ensured. We have to remember we are not doing any favour to her, rather we are only ensuring her rights this to our responsibility.

This has to be reflected while designing a project. We have to prepare projects where women will be at the center of activities and then place to be donors it will then be possible to empower our womenfolk.

## **5. 'And Miles to Go' Farah Kabir<sup>5</sup>**

***To your consideration, how is the disaster management situation in Bangladesh and what are the major problems?***

Undoubtedly, the situation is changing. Awareness about disaster management is increasing at all level of government, non-government and media.

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<sup>5</sup> Country Director, ActionAID Bangladesh

Before we all recognize cyclone, flood, earthquake, river bank erosion as disaster only. Now the notion has changed. Due to conditions of climate change there appear increased examples of heavy rain and drought. The nature and degree disaster impact has also changed. The sufferings of people have also increased in the process. We have to plan in a way by keeping these changes in mind.

We have lost many human lives in the Rana Plaza collapse. Because we were not prepared to handle this type of disaster. We could not imagine of such a degree of destruction and loss of human life.

After working for long time we get an individual ministry to manage disaster. We have many works to accomplish yet. The issues like search, rescue, providing relief and such others. The need for improving in the arena of inter-ministerial coordination is there.

We should always bear in mind that disaster and facing disaster now has become a part of our everyday life. The natural disasters are not the resultant effects of a natural alone but it is human induced too at the same time.

We have to work on technological intervention at government and NGO level. Information on micro level climate change has to be collected and collated. We have to consider information on climate and its changing trends to plan and implement plans well on its basis.

***You viewed that we progressed considerably. We have history of coping with disaster before us. Do you think that this whole process has been made compatible with needs of women? Otherwise can we focus specifically on the needs of women?***

The point where I had begun we used to talk about development for women but there was lack of putting words into action. For example, there was no space earmarked for women in the cyclone centers. As a result, the women had to suffer from all kinds of problems beginning with urine infection to physical violence. In instances, it had been observed that the sufferings of women after returning from cyclone centre have far exceeded the degree suffered at cyclone centre.

Living under the sun of 2014, we have to say that consciousness has increased reasonably. There is provision of toilet facilities created for women at newly established cyclone centers. Separate rooms are built for woman and man so that women do not become subject of physical violence or sexual harassment. Even new ramps are created for people with special needs.

Now we need social change, changing the mentality of the society and also the people at individual level. We have many things to do in this sector.

We often notice that a woman does not want to abandon her homestead even after a disaster forecast. Because she is not comfortable and feeling unsafe to leave home. Moreover, in coastal areas, most of the time the male member of family has to stay away from home for professional work. So, it is challenging for her to take a decision to abandon her house for shelter. If there is apprehension for sexual harassment then she will take a back step for sure. That means, society failed to ensure safety for its members.

Second problem is with relief distribution and receiving system. During earlier days, we used to observe that male members had come forward and took the relief materials even if by force. Women could not access them. Now, male members, thinking that women may get special preferences, send them at the front of the line. But they never think that how the women carry the heavy load home or take care and carry the child with her usually.

There are research findings that, when women go to receive relief they also suffer harassment. I am not generalizing but it happens. Meanwhile, immediately after a disaster when helicopter was deployed for emergency air-dropping of relief materials of 40 kg sacks that was too heavy for a

woman to carry. Even many women got injured in that process of air-dropping of heavy relief materials. Currently, the packets weigh about seven kgs. Things are changing. We are learning and modifications are made in our planning. However, women are yet to get their due acceptance in social forums.

Therefore, we need to start with changing our societal mind set and we should work seriously in those areas of interventions.

***In that case, how do you think we can bring about the desired change in the mind set of our society?***

At the outset, the base is education and learning and how we portray the women in our society.

We need to ensure the secured rights of the women and recognize all legitimate rights of the women. It is necessary to establish the equal rights of inheritance for women which would made possible to distribute equal assets for women. Then situation would have become more congenial. These aspects together, so, amount to bringing in changes in areas of distribution of opportunities, employment opportunities and the like.

These changes cannot be brought in overnight. We have to organize media campaigns. Laws need to be amended. We have many laws formulated and their implementation would compel a person rethink about it consequences before committing a wrong.

And lastly, especially the women have to be brought out clutches of poverty. Everybody should realize that the woman beside is a friend, comrade above all a human being.

***How much involved are the women with the existing committees for disaster management? What is their role in the process of decision making?***

There is a structure ready. Woman's names are enlisted there alright. However, they are not being able to participate. I gather, through discussions, their effective participation could not be endured. They are not even allowed to participate at places where they go forward on their own to participate. That is, there is change made in the structure only and not in its functioning. One might find the names of women in the committees but there are none to motivate them. They are even obstructed to come out of these committees. It will take some time for these factor conditions to be rectified and to create atmosphere for inclusiveness of women in these committees. It will surely take some time.

***What is your plan to build volunteer group?***

We have developed capacities of the women in the areas of various steps and techniques of disaster preparedness and rescue operations. The government has decided to organize a cadre of 60,000 volunteers. We now have to work around the special needs of the women and children. It is important to include these ideas in the school course curriculum.

## **6. 'Substantial Progress Made' Mahabuba Nasreen<sup>6</sup>**

***What are the major problems concerning disaster management?***

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<sup>6</sup> Director and Professor, Institute of Disaster Management and Vulnerability Studies (IDMVS), University of Dhaka

Bangladesh has achieved a significant progress in natural disaster management. One of the landmarks is the establishment of Bureau of Disaster Management. That really addresses the management of natural disasters. The work in this sector actually began in full swing after 1998. That initiated the coordinated effort. The two consecutive floods of 1997 and 1998 the cyclone in 1991 remain as big challenges in the annals of disaster management sector in Bangladesh. After the experience of these devastating hazards in last ten years Bangladesh became aware to do something in disaster management sector. Now Bangladesh is a role model to many others in disaster management.

The coordination with concerned organizations and other related works has begun from then on. Documentation work has started after those devastation disasters I had mentioned earlier. The Standing Order on Disaster Management (SOD) was developed in 1997 which is one of the precious documents in South Asia. SOD has been revised in 2010. The establishments of Disaster Management Bureau (DMP) in 1993 and the Comprehensive Disaster Management Project (CDMP) in 2004 keep a prime role in developing an institutional framework and documentation of events in this sector.

After the consequently, we have developed the National Plan for Disaster Management, the Disaster Management Act in 2012 and the centre policy. A cyclone warning system has been developed on the basis of the policy. This kind of warning system was not in existence before 1991 and it is one of the reasons for the death of several thousand people in the devastating cyclone in 1991. Now the death in such type of cyclone is relatively limited. From central to local level we have developed steps of Disaster Management system. In the coastal belt, we have constructed the cyclone shelters and trying to make the warning system more effective. If we look back, now we can say Bangladesh has achieved a lot of progress in Disaster Management sector.

When Food and Disaster Management Ministry worked under a single ministry, it used to be commented that more has been focused on food into Disaster Management. Because of this situation, in 2012, the Disaster Management and Relief Ministry have been separated. The Disaster Management Bureau has been turned into the Department of Disaster Management. If we observe minutely, a lot of works have gained a lot of ground. However, there still exists a lack of coordination among different ministries and agencies. Complications arise in the use of our existing documents. As a result, information could not reach everyone. Most of the documents are in English and after a long time an initiative has been taken to translate those in Bangla. There also exists a gap between those who are working in theoretical aspects and engaged in practical works.

***It is said that if the relief material is handed to the male that would not reach the targeted family. That is why women stand in the queue to collect relief instead of their male counterparts. What is your view on this issue?***

To respond to the question, I would say that of the two floods of 1987 and 1988, I had observed the flood of 1988 relatively vividly. I visited Tangail and Faridpur districts. I saw women's domestic work and their local coping mechanism help them to in disaster, nothing else. When I analyzed the data one thing I noticed that women are more responsible to survive in disaster situation. Subsequently, we observed only to emphasize the gender issue the relief was allocated in the name of women. If we distribute relief among women, men will not sell those things allocated in the market.

There are so many problems to receive relief for women. However, they have to go to receive relief. Some women even had said that they would not like the men who distributed relief materials hold their hands for signature (thumb's mark) and they were not comfortable with this. Relief will allocate in the mane of a women may not ensure reaching it to the correct recipient. It is not realistic either. Therefore we need to think again before commenting on this issue.

***Is there any scope to change the existing disaster management system to make it women friendly?***

It is not true that we did nothing on this issue. We had included gender issue in National Disaster Management Plan 2007 when it was being developed for the first time. To bring the issue in the mainstream, a policy was further developed in 2009. As a result few actins have been taken such as women has been given the responsibility in Local Government, they have been kept in relief distribution committee of disaster management, women's participation was also kept in need assessment and rescue and rehabilitation's committees.

But technical complexity is one of the problems. When we go in for its application, if there is no gender consultant to review the work, then the whole thing will be rendered useless. There also exists a bureaucratic complexity. If we want to make it women friendly we have to take an initiative and monitor constantly.

***Some women members of the disaster management committee even did not know that they are the honorable members. How do you explain it and what would be its solution?***

Basically lack of monitoring is the reason of such situation. I think that proceedings of every meeting should be recorded. When government employees asked the top members of the committee about the participation of women members, the male members confirm it. Even women members without participating in a meeting signed the minutes to confirm it.

**7. 'There is no negligence in our effort'**

**Ali Ahmed Khan<sup>7</sup>**

***What are the main kinds of problem we face in our disaster management?***

I think, our understanding in disaster response is much better than earlier times. The situation has changed from the previous years. Based on our field experience, we assume that people of Bangladesh occasionally face disasters and gradually and they have come to know how to cope with disaster. They have gained a lot of experience about natural disasters. As a result, a major portion f work has already been accomplished naturally. Right now, we need to talk with people to institutionalize it.

This is true for natural disasters. However, we should make people conscious about the man-made disasters and make them aware on how to cope with these kinds of disasters. It is required to arrange capacity development courses for the sufferers to warn all of them as well as their role and responsibilities after the occurrence of just about any calamity. For example, if there is an occurrence of fire then the people around has to take into consideration the route of fir-engines easily and conveniently to the spot. We currently waste enough valuable time to meet their curiosity.

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<sup>7</sup> Director General; Bangladesh Fire service and Civil Defense



We have to consider that the degree of loss in a hazard greatly depends on how promptly we can respond to it. It does not become possible all the while but, ideally, it should have been a normal phenomenon. Usually, we take an action after a disaster takes place. However, we have not yet developed a standing norm to face possible hazard within the earliest opportunity.

Even after having said all these, the standard of disaster management progressed considerably. We now, at least, try to keep ourselves prepared to face any possible disaster have a plan in place to reduce risks.

***Do you think that our disaster management is women friendly?***

I think currently we are in no way neglecting to make it women friendly. It will not be possible to make the process woman friendly by merely keeping the idea in our forethoughts. Whenever there is a plan to make an activity woman friendly, we try to achieve the target with some token participation of women in the event. However, we cannot expect to achieve a women friendly atmosphere of program with only a “token participation” of them. Beginning with to process of decision making to its implementation, women’s presence should be ensured at every stage of a project or whatever. Initially, it may have to be done forcibly, compulsorily or otherwise.

We are not yet ready to work differently for women. Therefore, we are trying to make it woman friendly with a positive attitude. Generally, a sense of restlessness prevails among the people in disaster. Over and above that if these people come to realize that special focus is given on them then it will enhance their psychological stress. Some process or method has to be devised to make the people understand that by considering about the woman the whole family is being considered.

***Currently the presence of women is visible in your department. How much do you think that has supported your disaster management efforts?***

If you intend to make a project woman friendly then the participation of woman has to be ensured at all phases of the project from its decision making to its implementation phase to start with. Now you can see women even at officers’ level. They are capable of supervising the operations that has to be accomplished at a location of disaster. These women can realize and portray the necessity of the provision of who are victims in an accident. The women can realize and portray the necessity of the provision of toilet facilities when she has the need.

As a result, presence of woman officers is needed on two counts.

- One, she herself can put in the place of woman.
- Secondly, the women at disaster can conveniently create rapport with her.

These activities have not been implemented very widely yet are at a planning stage in paper. If we can continue with this process then we will be able to realize the unique role that the women can play during and after disaster in our society. This way we will be able to achieve the agenda of a woman friendly disaster management system.

**8. ‘Need to Change the Mindset to Start With’  
Abu Bakar Siddique<sup>8</sup>**

***What is the problem in disaster management in Bangladesh in your view?***

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<sup>8</sup> Environment Reporter, Dhaka Tribune

I think we do not have enough institutional knowledge to understand the actual meaning of disaster. When we are going in to the issue of management-

At first we need to focus on what is required from the end product, the goal and then how to procure the goods and services for the affected people, process or methodology. Towards accomplishing these targets, we have to be honest, firstly. Secondly, we need to understand the affected area and the people.

While going for distributing relief materials after disaster, being emotionally charged, we often offer such things to the affected people that they actually do not require. As a result, affected people receive relief items from several sources, which actually nor useful for them. Even in such a situation, they could not sell the extra things to buy their necessary things in exchange.

In flood area, many response teams distribute flattened rice (dry chira). A big amount of chira is accumulated. But they have no place to keep it in a safer place in that situation. In addition, there is no facility to eat it with water. If there is a coordinated effort then this intricacy could be avoided.

***Do you mean that there is no coordination? Has there been no coordinated measure set in motion?***

The measure of coordination is prepared only theoretically. Plan and policies prepared at Dhaka are not checked for their usefulness by the field level staff. If you do not know how local people manage the situation, it will be difficult to understand whether the change needs to take place. As a result, there has been a distance created between marginalize people at the perpheri with the centre no effective change can take place so long these differences remain.

After almost every disaster, you can observe a example of lack of coordination. Another thing, relief materials like food, clothes are distributed during disaster and for consequent ten days to the affected people. In cases, it is more than their requirement. However, after that there is not enough long term program prepared for their recovery and rebuilding. If different organization are doing this though coordination and sharing, affected people will not suffer year after year only for one disaster.

***Is our disaster management women friendly?***

I do not think that we reached that stage yet. We overcome a disaster situation somehow patching up. The process of making the disaster management system women friendly has started recently. Let us take the example of cyclone shelters. There are plans of separate arrangement for women, concerns for women's hygiene. Though small in scale, nevertheless, the beginning is made. This is a positive step. Unfortunately, there is lack of monitoring. In every upazila committee, there are female members but in name only. Based on our observations, we may say that they are allowed to talk. They are not even invited for the monthly and other emergency meetings. Even if they are invited, they are not allowed to express their views. Because male colleagues are not accustomed to listen to the voice of women in such meetings. So we need to change our mind set initially. It is not possible to prepare women friendly disaster management system within a patriarchal framework.

***In your opinion, is it possible to make women friendly disaster management system within this structure?***

We have established the fact there are woman members at the upazila committee. Now we need to make them active. If the women cannot put forward their opinion in the meeting, then perhaps

they move around door to door to talk to women there. Efforts may be made to convince the men about the need to make women's role effective in government forums. Men should be convinced about the benefit that they will derive if women's role is effective. If successful, this will bring in positive consequences for both. When we want to change something for a beneficial purpose, then definitely a big change will come. From my experience while working in the field, I feel, we have everything though in an unorganized and uncontrollable manner. As a result, emergency response becomes time consuming. We all know the disaster-prone areas. In that case, we can prepare different plans and organize different teams for the respective areas. This may be preceded by collecting necessary information from the community people.

From expert's opinions it is clear that there are lots of disaster management policies for women in Bangladesh. However, all of these policies are not implemented properly. Though, situation is getting better than past day by day the velocity of this betterment is slow than necessity.

**Chapter 6**  
**THE STUDY AREA: KOLAPARA**

This chapter introduces the case of the coastal union named kolapara, under Kolapara Upazila in Patuakhali District. Firstly, a review will be made related to the history of the union in terms of its geographical description including area, population infrastructure, social wealth and weather and climate. Subsequently, disaster history of the district, hazards of the union and its present and future impact will be discussed. The principal focus will be made on women and their role and position in that union. Finally, a review of available data will be made from the viewpoint of anticipating, the way of reducing the vulnerability of women and constraints of this hope.



Figure 1 Location Kolapara union and other of Major areas of Kalapara Upazila

### Justification of Study Area Selection

The union of Kolapara in Patuakhali comprises a motivating field to work on women position and disaster management due to its high frequency and susceptibility to hazards and to the way of addressing vulnerable group especially women to natural disasters have shaped its history and development process.

Kolapara unions under this upazila are highly vulnerable due to its geological position and frequently affected by heavy downpour, cyclone, drought, cold web, high tide, salinity and other hazards. Kolapara union is constantly affected more or less by particular natural hazards such as heavy rainfall and river erosions each year. On the other hand, manmade hazards such as deforestation, fire ignition, unplanned shrimp culture and chemical use also destroyed the natural and biological balance of this union. In this union women are a heterogeneous groups such that their situations, deprivations and needs vary according to their communities, religions. Women make up almost half of the population of Kolapara union, however they remain one of the most at risk social groups of the union. Although strides have been taken to advance women's position in society, they continue to have lower economic, social and political opportunities. There is ample scope to address the gender perspectives in working the risk of disaster, managing risk of

disaster and responding to vulnerable group especially women. Therefore this study area was selected to fulfill the objectives of the present study.

## **Historic al Background**

Kalapara has a rich history. Kalapara upazilla is the start off upazilla of Bangladesh co-operative movement. The biggest rice mill of Asia was established in Kalapara through co-operative action on British ruling period. Also Oil mill, match factory, paper mill, Cinema hall, co-operative market and many more things are establish here. One of the four Radar stations of Bangladesh is in Kalapara Upazilla. Electricity and telephone connection reached kalapara upazilla on 1976. One of the four Hilsha breeding centers of Bangladesh is on the estuary of Andhar manic river in Kalapara.. Kalapara is also famous as fisheries harbors .It is 50 km far away from the district town.<sup>1</sup>

This upazila also known as Khepupara. Rakhain tribe of Bangladesh first settled in this upazila. A section of the people belonging to the Buddhist Rakhain tribe of Arakan came to this upazila in quest of better living and first settled at Khepupara and Kuakata. Tradition goes that the Rakhains on excavating wells traced fresh water in the area and thereby settled there. The Rakhain word 'kansai' means 'beach of fate'. The place was named as Kansai after this. The place was subsequently renamed as Kuakata (digging of well) after the wells dug out by the Rakhans. The upazila though named as Kolapara, the upazila sadar is known as Khepupara. It is said that two influential Rakhain chiefs used to reside on either side of a canal running northsouth through the upazila, Kalau Magh on the eastern bank and Khepu Magh on the western side. The habitation on eastern bank of the canal was named as Kalapara after the name of Kalau Magh and that on the western bank as Khepupara after Khepu Magh.<sup>2</sup>

## **Geographical Position of the Study Area**

Kalapara Upazila lies in 21.986 North latitude and 90.2422 East latitude. Its area is 492.102 square km. In north west Amtali upazilla, in east Rabnabad channel and Golachipa Upazilla and in south the bay of Bengal. The major rivers are the Andharmanik, Nilganj and Dhankhali.

## **Population**

The total population of Kalapara upazilla is 2,37,831 (two lacks thirty seven thousand eight hundred and thirty one). Among them 1,20,514 (One lack twenty thousand five hundred and fourteen) are male and 117317 (One lack seventeen thousand three hundred and seventeen) are female. 55,485 (Fifty five thousand four hundred and eighty five) are children, 24,732 (Twenty four thousand seven hundred and thirty two) are elderly people and 1,921 ( One thousand nine hundred and twenty one) are people with special need. Total number of family of this area is 57,527 (fifty seven thousand five hundred and twenty seven) the total number of voter is 1, 51,996 person.<sup>3</sup>

## **Cultural Diversity**

The cultural tradition of Rakhain tribe along with Bangali culture makes the upazilla more diversified, attractive and rich. The second largest sea shore of Bangladesh, Kuakata , is located

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<sup>1</sup> [www.unokalapara.gov.bd](http://www.unokalapara.gov.bd)

<sup>2</sup> [https://en.wikipedia.org/wiki/Kalapara\\_Upazila](https://en.wikipedia.org/wiki/Kalapara_Upazila)

<sup>3</sup> Source: Upazilla Statistics and Election Commission Department, Kalapara, Patuakha

in this Upazilla. It is about 70.50 km distant from district city to Sea beach of Kuakata. Kuakata has become one of the well-known tourist spots of the world for rare opportunity of observing sunrise and sun set at a place.

### **Livelihood Pattern**

Most of the Muslim people earn their livelihood as day laborer or as van driver (manual and auto). Some of them are involved with other activities such as working as mill worker, shopkeeper and barber some others are boatman and fisherman. In fact these occupations are not permanent. Their income is too insufficient to maintain their family. The female members of their family often do something to maintain family such as collection fuel wood, making handicraft and collecting grain which remain in the field after harvest. Though these are not always income generated, but meet their demand. On the other hand, male Rakhains work as fisherman or hunt Crabs in river and canal. Some of them are farmers in their own land and some others do nothing. A few female Rakhains have their loom, though they have still a good reputation for weaving. However it is important to mention that both Bengali Muslims and Rakhains claim agriculture as their previous occupation.

### **Administrative**

Kalapara thana was declared on 1906 and the thana was diverted into upazilla at 1983. Kalapara upazilla consists of 12 unions and 2 powroshova.

List of Maujas of 12 unions and 2 powroshova under the upazilla are given below:

Upazilla	Name of the union	union Number of Moujas	Name of the Moujas according to the Union.
Kalapara	Chakmia	05	Anipara, Chakmia, gamorbunia, Chkmia
	Tiakhali	05	Badurtoli, etbaria, khapupara, Rajpara, Tia khali
	Lalua	05	Banati para, chandu para, golbunia, lalua, noakata.
	Mithaganj	03	Modhukhali, Mithaghanj, Tegasia
	Nilganj	07	Hazipur, kumirmara, nobipur, nil ganj.
	Mohopur	03	Nijampur, shibbari, yousuf pure.
	Lotachapali	01	Lotachapali
	Dhankhali	06	Dhankhali, londa, Pachjonia,, Nishanbari, Modhupara
	Dhulshar	05	Belatoli, Char chapli, Dhulshar.gongamoti, kwarchar
	Baliatoli	09	Brara baliatoli, Charballiatoli, Charer shad,, Charhabib, Charnajir, Sonarpar
	Dalbuganj	03	Dalbuganj. Horendro pur, Monsha toil.
	Champapur	07	Binmakatadia, Chalitabunia, Debpur, golbunia, Krishnopur, Patua
Kalapara Powroshova	22	Nachna para, Khgepupara, notun bazaar, Pyranbazar, Rahmat pure, Atimkhana, Chitbunia, Akrabaria, Katpotti, kular potti, Naia potti, poshuhaspatal road, Puran	

			stemar ghat, Islampur, Madrasha road, Upazilla office, Collager road, shanty bvag, manghal shuk road, badur toil, Bara sikandar bari, Muslim para, sobuj bag.
	Kuakata powrashava	20	Dakhin khajura, Mongsoe para, poschim kuakata, Shorif pure, dakhin kuakata, Puran para, kreanio para, soriat pure, Panjue para, ponchaet para, melapara.north- Kuakata. Mohammad ullah sarak, tulatoli. Musolli bad ongso, hasain pure, Mulovi menaj uddin sarak.
Total	14	101	

Table 1 List of Maujas of unions and powroshova under the Kolapara upazilla; (Source: Upazilla Statistics Department, Kalapara)

### **Infrastructural and Non-infrastructural Resources of Kolapora Union**

There 6 km terraced embankment from kalapara feri ghat to Baliatoli khea ghat which is situated by the north side of those rivers and is 7 feet height. This embankment protected the Center point of Kalapara powrashava, Upazilla poriasad, thana, Post office, bazaar and Educational institution and so on. There are 8 sluice gates, 1 bridge, 15 Culverts, 10 km road in this union.<sup>4</sup>

### **Communication and Mode of Transportation**

Rikshaw, Auto, engine van, Naasimon, Motor cycle, van, Pick-up-van, Bus and Boat are the main transport through which people of this area can communicate with district.<sup>5</sup>

### **River**

There are three rivers in Kalapara Upazilla. They are Andharmanic, Purboshonatola, Tiakhali. Most of the fisherman family getting support by catching fish from these three rivers. Besides having some merits also have some demerits such as different area washed away in the time of Ashar, Sraban and Vadra when the millet water is high.<sup>6</sup>

### **Social Wealth**

In accordance with Upazilla Health and Family Planning Department; Water Development Board & LGED; Upazilla Agriculture Department; DPHE; Education and Statistics Department; Upazilla Health and Family Planning Department;, Kalapara:

- The total number of houses of this union is 3,579 among those 1,383 are non terraced house, semi pucca house are 1,171, 1,009 are the terraced home and 16 families made their home in others land;
- There 234 deep tube well are in this union from that 06 are not performing and 07 are beyond the flood level;
- There 1483 latrines are in this union from those 1032 are on top of flood level;
- 179 are government primary school, 40 schools are maintaining by BRACK, 30 are maintaining by Karitas. Dhaka Ahsania mission operating school 10, Secondary school

<sup>4</sup> Water Development Board & LGED, Kalapara

<sup>5</sup> Upazilla Statistics Department, Kalapara

<sup>6</sup> Water Development Board, Kalapara



28, junior school 5, Degree college 2, general college 2 technical collage 2, Abadeta madrasa 37, Dhakhil madrasa 22 and senior madrasa 5 are placed;

- There are 26 Mosques, 09 Temples, 02 Shrines and 01 Garzas in this Union;
- There 1 hospital, 6 diagnostics center, 2 community clinic and a massive sum of pharmacy of different size are available in this union;
- There are 1 post office and 9 Banks located in Kalapara and Kuakata upzila town of them 5 are government bank and 4 are non-government bank. Those are Agrani Bank, Janata Bank, Sonali Bank, Krishio Banmk, Rupali Bank, BRAC Bank, Shajalal Islami Bank and Uttara Bank.

### Several Governmental Projects in the Village

Kolapara covers a good number of flood protection embankments, bridges, sluice gates and culverts which have been made by government. But many of these are totally useless now as the rivers change their direction frequently. Kolapara is located between two sluice gates which have become de-active. Government is trying to change the economic condition of the village people. For instance, village people are advised by upazila agriculture office to plant trees and cultivate those crops which are adaptive with salinity. At present some people grow sun-flower, corn, watermelon and so on. There traditional farmers formerly cultivated paddy and pulse. Government is also caring about the minor Rakhains who have been randomly migrating to Myanmar for some previous decades. A clustered accommodation named ‘Abashik’ is now under construction which is maintained by Comprehensive Disaster Management Program (CDMP). Union Parisad is the leading institution of community level disaster management. It proposes budget and plan every year for the development of village. Union Disaster Management Committee (DMC) has been announced though it has not been activated yet.

### List and Activities of Supporting Organization

NGOs which work in disaster and emergency management have a great influence on the village people. Several national and international NGOs like Friendship, Action Aid, Muslim Aid, Codec, Speed Trust, Caritas and Red Cross are raising awareness among people and providing disaster aid and emergency relief. Among them especially Red Cross provides early and effective warning to the villagers. It is mentionable that most of the sanitary latrines, risk or hazard maps and storage for drinking water are their contribution. Also, under these NGOs, several groups of men and women have been organized to cope with reverse conditions such as climate change, temperature rising, increasing salinity and cyclone.

List of NGOs working with disaster are given below:

No.	NGO	Work in Disaster	No of Beneficiary	Implementation period
1.	Muslim Aid	<ul style="list-style-type: none"> <li>▪ School based S.M.C meeting.</li> <li>▪ Awareness meeting and training along with school students.</li> <li>▪ Training about disaster</li> <li>▪ Increase awareness and tolerance on disaster.</li> </ul>	33567	April 2013 January 2016

		<ul style="list-style-type: none"> <li>▪ Ward disaster management committee.</li> <li>▪ Arrange Firing line about disaster.</li> <li>▪ Day observance</li> <li>▪ Increase facilities based on school.</li> <li>▪ Compile disaster management plane on Upazilla and district level.</li> <li>▪ I.G.A</li> <li>▪ Cash for work and training.</li> </ul>		
2.	Avash	<ul style="list-style-type: none"> <li>▪ Disaster awareness meeting</li> <li>▪ Increase awareness about climate change.</li> <li>▪ Emergency support during disaster.</li> <li>▪ Day observance.</li> <li>▪ Emergency support for the MOHASSEN affected people.</li> <li>▪ Re-construction of damaged houses.</li> <li>▪ Re-construction of damaged latrine.</li> </ul>	490	April 2010- December 2015
3.	F.H	<ul style="list-style-type: none"> <li>▪ Training about disaster.</li> <li>▪ Increase awareness about disaster.</li> <li>▪ Rehabilitation.</li> </ul>	350	January 2008 - January 2020
4.	Friendship	<ul style="list-style-type: none"> <li>▪ Village disaster management committee.</li> <li>▪ Arrange awareness meeting with the students of secondary level.</li> </ul>	37500	June 2013May 2014
5.	Wave foundation	<ul style="list-style-type: none"> <li>▪ Training about disaster.</li> <li>▪ Increase awareness about disaster.</li> <li>▪ Re-construction of the damaged houses.</li> </ul>	1598	June 2010 - June2016
6.	J.J.S.	<ul style="list-style-type: none"> <li>▪ Training about disaster</li> <li>▪ Increase awareness about disaster.</li> <li>▪ Re-construction of the damaged houses.</li> </ul>	3200	October 2013- March 2014

		<ul style="list-style-type: none"> <li>▪ Support for the fishermen.</li> </ul>		
7.	World concern	<ul style="list-style-type: none"> <li>▪ Training about disaster.</li> <li>▪ Increase awareness about disaster.</li> <li>▪ Re-construction of the damaged houses.</li> </ul>	18777	July 2013 December 2016
8.	Polli gana unnayn kendro (P.J.U.K)	<ul style="list-style-type: none"> <li>▪ Training about disaster.</li> <li>▪ Increase awareness about disaster.</li> </ul>	1890	April 2007 January 2020
9.	Speed trust	<ul style="list-style-type: none"> <li>▪ Village disaster management committee.</li> <li>▪ Courtyard session.</li> <li>▪ Construction or repair cyclone shelter.</li> <li>▪ Road and earthen rampart.</li> <li>▪ Arrange firing line about disaster.</li> <li>▪ Day observance</li> </ul>	37555	May 2011- March 2015
10.	Codeck	<ul style="list-style-type: none"> <li>▪ Training about disaster.</li> <li>▪ Increase awareness about disaster.</li> <li>▪ Awareness theater outreach.</li> <li>▪ Preparing list and identity card of the fisher man</li> </ul>	3235	November 2013- April 2014
11.	Karitash	<ul style="list-style-type: none"> <li>▪ Village disaster management committee.</li> <li>▪ Courtyard session.</li> <li>▪ Construction or repair cyclone shelter.</li> <li>▪ Road and earthen rampart repairing.</li> <li>▪ Firing line about disaster.</li> <li>▪ Day observance</li> </ul>	38000	May 2011- March 2015

Table 2 List of NGOs working with disaster in Kolapara; (Source: Upazilla Parishad, Kalapara)

## Some Illustrations of One of the Foremost NGOs in Kolapara Named Karitash:



Photo 1 Karitash cyclone centre office



Photo 2 Name-plate of Karitash cyclone centre office



Photo 3 Ramp of the Karitash cyclone centre for special need people



Photo 4 Inside room of the Karitash cyclone centre



Photo 5 Researcher with two Karitash officers

## History of Disasters at Kolapara

Due to being near to the coast, almost every year different disasters attack Kalapara upazila. People faces huge loss of property and normal life become disrupted. This upazila faces some or other disasters including cyclone, river filling up, salinity, coastal flooding and storm. Salinity intrusion is increasing day by day which extensively is damaging the crops and trees. Due to this hazard agriculture, animal resources, health, infrastructure and trees become affected. In that area

scarcity of food is seen, including crisis of employment normal life of people become disrupted. From the overall history of Kalapara upazila shows that, almost every year cyclone takes place in this area. The cyclone of 2007, 2009 and 2013 was atrocious.

In rainy season extensive area including upazila and cities become inundated due to overflow of river. Besides, heavy downpour in rainy season creates marshy in house of low area among upazila because of bad drainage system which remains stable nearly a month. The level of flood and water logging are increasing in this area due to river siltation. Posur river situated west side of this upazila and mostly responsible for flooding.

The major hazards of this upazila are Cyclone, Surge, Salinity, Water logging, Heavy downpour, Drought and River bank erosion.

Amount of loss, time of happening and damages and departments are given below through chart:

No.	Name of Disaster	Year	Amount of Loss	Resources / sectors
1.	Cyclone	1988, 2007,2009	Huge	Crop, human resource, livestock, infrastructure
2.	Salinity	Every year	Huge	Crop, Plants, Domestic animal
3.	Coastal flooding	2000, 2013	Huge	Crop, Fish, Domestic animal, infrastructure
4.	Water logging	Every year	Huge	Livelihood
5.	River bank erosion	Every year	Huge	Crop field and homestead area, home, road, infrastructure
6.	Heavy downpour	Every year	Huge	Crop
7.	Surge	2009	Huge	Crop field and homestead area, home, road, infrastructure, crop, fish, domestic animal

Table 3 List of Disaster, amount of loss, time of happening and damages and departments; (Source: Upazila Disaster Management Plan Upazila: Kolapara, District: Patuakhali)

- ✓ Due to near sea coast, ponds and low land area of this upazila become affected by above mentioned hazards. This upazila become affected with most of the hazards in the month of March to May and September to November.
- ✓ Flood water level was reached at the highest pick during sidr cyclone. Flood water level became 15-18 feet during sidr.
- ✓ In 15th November 2007 the height of water of sidr cyclone grew too fast.
- ✓ Bore water was standing for 2-3 hours.
- ✓ Facing difficulties in case of lives and livelihoods, traffic, diseases etc.

Some recent disasters are given below

Name of disaster	Year	Amount of Loss	Which Resources/ s Sectors were Affected
Cyclone Mohasen	16th May, 2013	<ul style="list-style-type: none"> <li>• Number of affected people- 174302 person</li> <li>• Affected area- 335.86 square kilometer</li> <li>• Number of died people- 2 person</li> <li>• Number of injured people- 565 person</li> <li>• Number of affected families- 44590 person</li> <li>• Number of affected home- 25038</li> </ul>	Human life, domestic animal, poultry, crop, plants, fish, infrastructure, road etc
Cyclone Aila	25th May, 2009	<ul style="list-style-type: none"> <li>• Affected area - 45 square kilometer</li> <li>• Number of affected people- 20000</li> <li>• Number of injured people- 13 person</li> <li>• Number of affected families- 3690</li> <li>• Number of affected home- 2850</li> <li>• Affected domestic animal- 15000</li> </ul>	Domestic animal, poultry, crop, plants, fish, infrastructure, road etc.
Cyclone sidr	15th November, 2007	<ul style="list-style-type: none"> <li>• Affected area-</li> </ul>	Human life, domestic animal, poultry, crop,

		13.40 square kilometer <ul style="list-style-type: none"> <li>• Number of affected people- 21000 person</li> <li>• Number of died people- 4 person</li> <li>• Number. of injured people- 250 person</li> <li>• Number of affected families- 4200</li> <li>• Number of affected home- 2400</li> <li>• Number of affected domestic animal 314</li> </ul>	plants, fish, infrastructure, road etc.

Table 4 Information about recent disasters occurred at Kolapara; (Source: UP, Upazilla PIO, UNO & CPP Office, Kalapara)

### Main Hazards of This Upazila

Identification and prioritization of the hazards of this upazila are given below:

No.	Hazards	Sl. No	Priority
1.	River bank erosion	1.	Cyclone
2.	Surge	2.	Surge
3.	Cyclone	3.	Salinity
4.	Coastal flooding	4.	River bank erosion
5.	Heavy downpour	5.	Coastal flooding
6.	Salinity	6.	Water logging
7.	Water logging	7.	Heavy downpour

Table 5 Identification and prioritization of the hazards of this upazila; (Source: CPP Office, Kalapara)

### Detailed Description of Different Hazards, Present and Future State<sup>7</sup>

Detailed description of different hazard and their present and future states of kalapara upazila are as follows:

#### Cyclone

<sup>7</sup> Upazila Disaster Management Plan Upazila: Kolapara, District: Patuakhali

Kalapara upazila is mainly cyclone-affected area. Every year cyclone hits on this area from the month of Vadra to Agrahayon. As a result, agriculture, fish, infrastructure and communication system in this area are extensively damaged. Destruction of trees and Sundarban are rapidly increasing the loss of cyclone affected area. It is assumed that, the gradual increase of global temperature accelerating the frequency of cyclone occurrence. Every year cyclone attacks on this area but it was severe in the year of 2007, 2009 and 2013. About 35-60% aman rice, 20% orchard and 90% vegetables became damaged in 2009. About 40-50% aman rice, 20% orchard and 90% vegetables damaged on this area by cyclone in 2007, 2009 and 2013.

### **Surge**

The tidal surge is the main hazard of Kalapara upazila. This upazila is affected slightly or heavily by bore in every year. Due to low land area and near the sea this upazila is hindered by tidal surge. Most of the people of kalapara upazila are fishmonger, so tidal flows exert negative impact on human life and livelihood in this area. Including death of life massive loss observed on property, crop, fish resources, forestry, domestic animals, poultry, house, industry and other infrastructure. As for example, the scenarios of loss of tidal surge during cyclone are mentioned in the above chart. The condition of embankments, roads, culverts and sledge gates is very fragile so that the sufferings of people and loss of properties become higher. Apparently in this area have lower number of shelter house and other facilities than amount of population. If didn't improve the above mentioned condition huge loss can occur in future. The most comprehensive tidal surge or flood was seen in 2009. Besides, due to decrease the navigability of the river the outbreak of tidal surge or flood is increasing in this area.

### **Salinity**

Salinity is a dangerous hazard of Kalapara upazila. Day by day salinity level is increasing in that area. The intensity of salinity became higher in the month of Poush to Jytha. Almost every union has gone under salinity. The level of salinity gradually decreases during rainy season. In dry season salinity creates huge loss on agriculture sector. Due to increase salinity, scarcity of drinking water is seen in that area. Because of increased sea level day by day salinity is increasing in river water. The high level of salinity is seen in 8 union of Kalapara upazila among 12 unions. Due to salinity, it exerts great negative impact on crops, forestry, infrastructures, fish resources etc. in other words overall livelihood. The salt water of sea easily enter into the crop field due to bad condition of embankments, roads as well as sledge gate and that can't firstly drain out because of lower level of land. Thus day by day crop field of Kalapara upazila has gone under saline water. If immediately did not take any initiative it would happen in future when there were no cultivable land. In future agriculture sector will suffer great loss in dry season, if present this condition. The problem of salinity observed every year but severity was higher in 2006.

### **Riverbank Erosion**

Riverbank erosion is seen in kalapara upazila. Every year riverbank erosion continues in this union. Riverbank erosion happens from the month Ashar to Ashin. As a result, huge amount of agricultural crops, home, roads, trees have vanished in the heart of the river. As a result food productions become disrupted. Human become homeless and environment become lost. If didn't construct embankments with block and didn't plant rooted trees in river side, it would happen more severe in future.



## **Flood or Coastal Flooding**

The channel of Andharmanik and Ramnabad flows south and east south sides respectively of the union their tidal water causes flooding in this area. Besides, heavy downpour creates flooding. Due to lack of well arranged drainage system flood is become harmful on life and livelihood. If the drainage system isn't properly managed and don't higher and strengthen the embankments of river in future flood may increase. Every year flood happened but in 2013 flooding was remarkable which created by heavy downpour.

## **Water Logging**

In future due to construction of unplanned dam and lack of placement of sledge gate in priority area have the possibility to increase water logging condition. Besides this, inappropriate drainage system causes increase of water logging condition.

Women are considered as most vulnerable in the society of Bangladesh. They become more defenseless at risk in disaster because of social, gender and economic vulnerabilities which all arise from inequality. Women who are especially living in remote areas rely upon state supported social services, be unemployed or work in the informal economy. In general all women of Bangladesh suffering from lack savings, credit and insurance, lack inheritance rights, land rights and control. In the social culture of Bangladesh women commonly do household chores, rearing children alone, be responsible for others such as family, kin, neighbors as paid and unpaid care givers. They depend on functioning care giving systems, depend on public transportation and travel with dependents. Women always live at risk of assault and abuse and also physically depend on others due to late pregnancy, recent childbirth, age and the like various factors. They usually subject to male authority in the household regarding use of emergency assistance assets and key decisions about evacuation and relocation. By and large, gender norms controlling women in mobility and use of public space.

These characteristics indicate women are more likely to live below the poverty line.

Manifestly women are sternly affected by disasters because of their social roles, discrimination and poverty. Though, women contribute a great in throughout the disaster management cycles they are avoided from socially and secluded from main stream of participating and making policy. In rural areas they are especially vulnerable due to highly dependency on local natural resources for their livelihood.

Kolapara Upazila is considered as immense disaster prone area in Bangladesh. Women are affected more than their male counterparts because of disaster in this area. Due to the poverty and gendered individuality in comparison with men, women make up an unequal share of self-protection, social protection and livelihood resilience. The vulnerable women of the coastal areas in Bangladesh are not getting proper support from the government and nongovernment organizations. Without participation and considering gender issue in disaster policy, good governance and sustainable disaster management policy is not possible.

For this reason, this research has been conducted having the following objectives:

- To explore how women are affected by disaster;
- To identify the vulnerabilities and difficulties that result from disaster for women;
- To identify the policies taken for women in disaster management plan in Bangladesh;
- To explore whether the women are benefited by these policies or not;
- Exploring the scope of women in the process of disaster management where they can play effective role;
- To identify the policies needed to be implemented for women.

## **Data Collection**

Both primary and secondary data have been collected from various sources and forms.

### **Primary Data**

The primary data had been collected from 1<sup>st</sup> April 2016 to 5<sup>th</sup> June 2016. Within this time data were collected from questionnaire survey. Five Focus Group Discussions (FGD) and two case studies were also conducted owing to data assembling. Besides all of these, data were accumulated through direct participation and observation.

Detailed features of questionnaire survey, case study and focus group discussion are discussed below:

#### Questionnaire Survey

Questionnaire survey conducted on 100 respondents of the study area. For this purpose, a semi-structured questionnaire was prepared for data collections. The format of the questionnaire was close and open ended which had been pre-tested prior to the field work in order to improve its reliability and validity. The number of respondent consists of both male and female. There were 62 female and 38 male persons. It was tried to ensure respondents from maintaining various occupation, educational profile, race and age. From total respondents, the number of 'Rakhain' people was 43 where 22 were female and 21 were male. The rest number of respondents came from 'Bengali' race. There were 9 people were van drivers, 9 was working as mill worker, 6 persons were shopkeeper and 5 persons were barber, 4 persons were boatman, 3 persons were fisherman and 2 persons were students. Most of the female respondents doing household chores except 5 were students and 3 were small business entrepreneurs. The age range was 22 to 65 of the total respondents. There were 23 respondents have non-formal literacy, 14 up to class five, 21 class six to eight and 1 SSC or equivalent. The rest number of the respondents has no educational background. The number 1 to 4 of family members are belonging to 55 respondents, 41 respondents have 5 to 7 family members and 4 respondents have eight or above family members. On an average, there are 4 members in every family.

#### Focus Group Discussions (FGD)

There are five focus group discussions were conducted for this research purpose. The respondents were both male and female. In general, 10 to 12 was the number of each focus group. It was attempted to consist every group with 'Rakhain' and 'Bengali' people to ensure cultural diversity. The age range was 22 to 65. It was aimed to balance the number of male and female and also aimed to ensure respondents from maintaining various occupation, educational profile, race and age. Among five FGDs, three was conducted where all members were female to know their well and woe and demand since they felt shy to talk before male persons and they less intended to argue any point with male person.

Every focus group discussion was carried out by the members of the group. In the beginning, the purpose, issue and importance of the research was told the group. Next, let them knew that their discussion was going to recorded by both written and recording format. Subsequently, they were requested to select a mentor from them. Most of the time, the aged person among them was selected as mentor. No women agreed to be mentor in a mixed group. They felt shy. There was no interruption when the discussion began except once it was noticed that they became detract or skipped any important point.

### Case Study

Two case studies were taken and both of them were women. From this study it was attempted to collect individual saying, demand and experience about their role and contribution at disaster time.

### Direct Participation and Observation

During conducting this research study dairy maintaining was also a part of collecting data along with questionnaire, FGDs, case study. The purpose of dairy maintaining was to note down daily activities, understanding and feelings from everyday's experience.

### **Secondary Data**

The secondary data had been collected from research and newspaper articles, different reports, public documents and websites related to the study area. The secondary data of this study illustrate previous history of natural disasters, damages, losses, women's role in disaster management, women's role in livelihood activities, and coping strategies adopted by women, year round phenomenon of different hazards and vulnerability information according to their intensity and frequency, demographic features of study area, socioeconomic conditions of the study area, Government and NGOs development activities related to gender specific disaster management and so on. Moreover, data also gathered from key personals and various institutions working with the issue.

Different secondary data were analyzed and integrated with primary data.

### **Research Design and Data Collection Method**

The study was conducted for a period of around 2 months from 1<sup>st</sup> April 2016 to 5<sup>th</sup> June 2016. The sample size was 100. The research method was combinations of quantitative and qualitative research methods. This research explored the women hazards suffered, role in disaster situation and position in disaster management policy in Bangladesh. It was adopted an exploratory approach through employing participant observations, physical visit, in depth semi-structured open ended questionnaire for individual interviews, case study and Focus Group Discussion (FGD).

Additional information as secondary data was pertaining to the study was attained by accessing the relevant information from media such as journal articles, books, other research thesis and the use of recorded data, through Union Parishad (Local Government administrative office), Upazila Parishad (Sub-district Government administrative office), study areas and from various organizations working with this issue.

### **Data Processing Method, Statistical Tools and Techniques**

After collection of each day, the data was checked, followed by editing and cleaning to detect errors or omissions and to maintain consistency and validity. Then the tabulation work including editing, coding and tabulation manually and using Excel program. In order to process and analyze the data, simple mathematical tools like average, percentage and tables, graphs were used to present the research findings in a meaningful ways.

### **Data from Field Study**

It was intended to explore women's role in disaster management and women's position in the existing disaster management policy in Bangladesh. At the start, it was observed that how women are affected by disaster and attempted to identify the vulnerabilities and difficulties that result from disaster for women. After that, it was explored how the women are benefited by before mentioned policies, which are taken for women in disaster management plan of Bangladesh. Subsequently, it was intended to identify the scope of women in the process of disaster management where they can play effective role and tried to find out the policies needed to be implemented for women.

From questionnaire survey and focus group discussion it was anticipated to find out the situation from the saying, sufferings and experience of local people (both male and female) living at Kolapara. Finding data from two methods mentioned above are given below by demographic Characteristics.

### **How Women Affected and Become Vulnerable by Disaster**

The vulnerabilities to disasters are different for male and female. The scale of the vulnerabilities also differs by sex and the sexual construction of the culture. While the whole of the disaster management discourse is emphasizing the shift of relief dominated disaster management towards a more comprehensive disaster risk reduction culture, the gender remained a very important aspect of risk reduction because of the cultural process of causation of vulnerability to disasters.

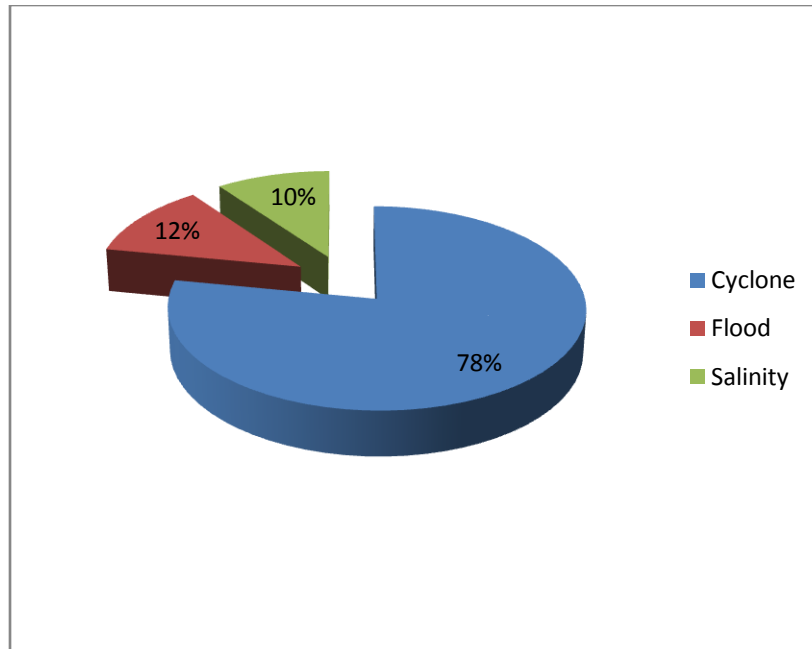
#### Questionnaire Survey

From questionnaire survey it was intended to find out the name of common disasters by which the people of this area affected in excess of others.

There are so many replies to the question –

*'According to your opinion what is the main disaster in your union?'*

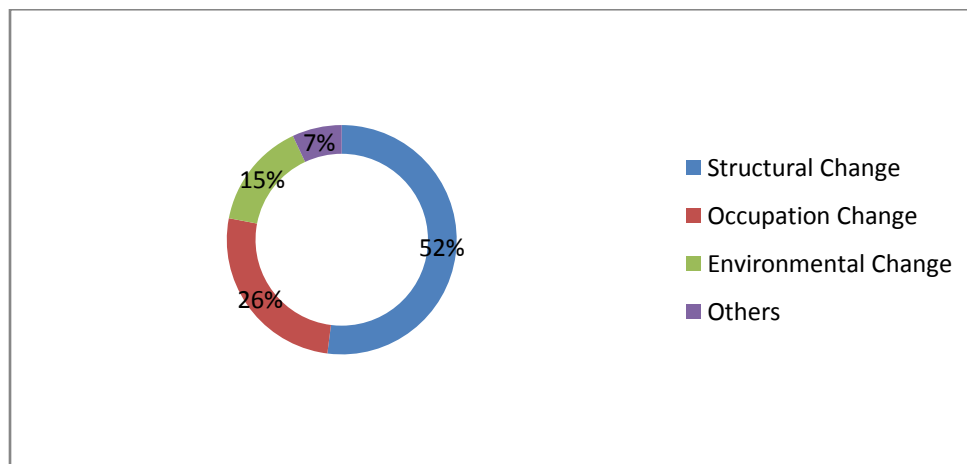
From all respondent's answers the usual disasters at this union are cyclone, seasonal storms, flood, salinity which occur frequently in their village. 78 respondents out of 100 like almost all the people indicate cyclone as the main disaster. Around 12 respondents consider flood and 10 respondents consider salinity as their disaster. They point out summer and autumn season as the time of cyclone in yearly calendar which actually refers to the pre-monsoon and post-monsoon period. It is also the time of storms. Flood usually occurs in monsoon period and sometimes during the time of cyclone. Salinity is a regular phenomenon.



**Figure 2 Main disaster according to opinion of respondents living the study area**

There was another question on changes made by disaster. According to the question, *'Do you think disaster has made several changes in last ten years? If answer is YES, then what is/are the kind of that change(s)?'*

Among 100 respondents all agreed that they noticed changes. However, there are different views on types of changes. 52 persons of the total respondents focused on structural changes of the village, 26 persons on occupation, 15 persons on environmental change and 7 persons on others. All agreed that climate especially soil and temperature is changing. In pointing out its impacts they mentioned that production of crops minimizing day by day, now a days so many certain types of plants, birds and other animals are demolished, the river that has changed its direction.



**Figure 3 Several changes made by disaster in the study area**

In order to figure out the vulnerabilities of women it was divided into 3 genres

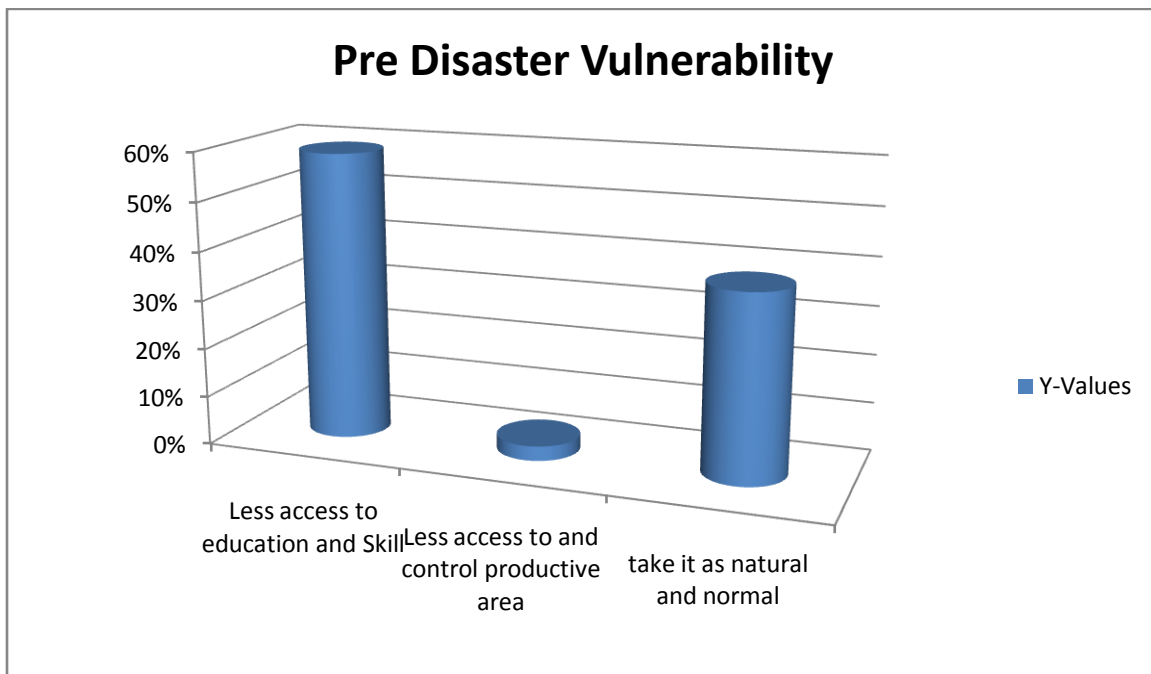
1. Pre disaster period
2. Disaster period
3. Post disaster period

In questionnaire there is a question-

*'What are the problems have to face women in pre disaster, disaster and post disaster period?'*

There were various views of the respondents on *pre disaster vulnerability*.

59 respondents out of 100 took less access to education and skills, social restrictions and fewer economic opportunities of women in the society as the vulnerability of women in pre disaster period. 3 respondents pointed less access to and control over productive resources, including access to land and ownership rights, access to services, markets and so on. The remaining 38 respondents including male and female took the vulnerability of women as natural and normal. Some women of them obtained vulnerability as their fate. They don't want to take any situation as vulnerable in pre disaster period

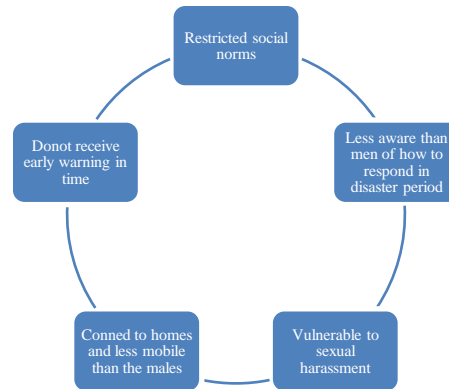


**Figure 4 Vulnerability of women in pre disaster period**

It was traced that all respondents gave nearly same beliefs about the *vulnerability in disaster period*. In general the points were given by them-

- Restricted social norms in Bangladesh made the women reluctant to move from their home to a safe area.
- In some cases they are less aware than men of how to respond in disaster period because of restricted social rules.
- Women and children are rather conned to homes and are less mobile than the males, which increase their vulnerabilities and sufferings during disasters.

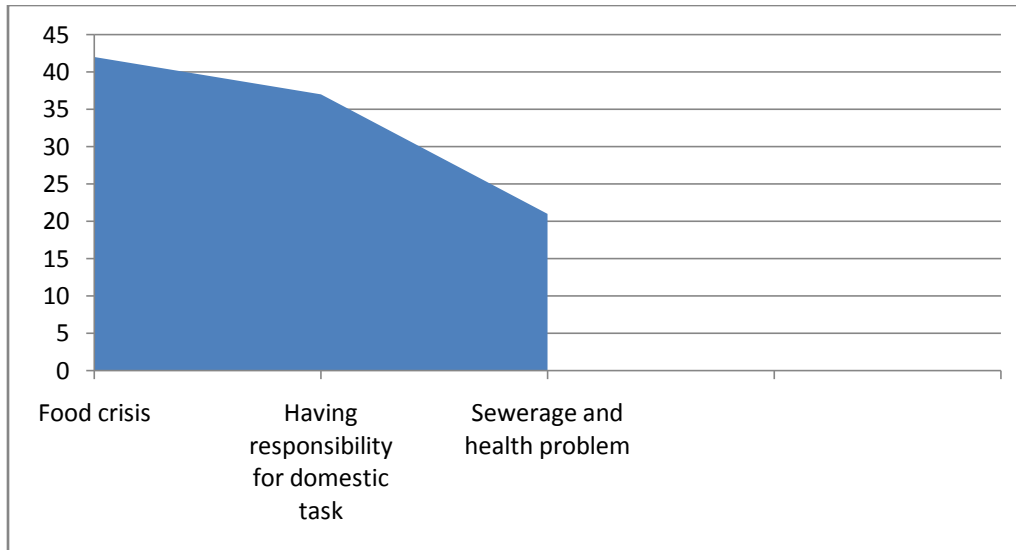
- Women are often vulnerable to sexual harassment in pre and post disaster situation. In some areas, it was reported that the hooligans and looters took the opportunity of the people's distressed situation for robbery and sexual violence. As a result, in anticipation of sexual offence, young women and adolescent girls are not preferred to go to the cyclone shelters in order to avoid staying with males (strangers).
- Women are less like to reach receiving early warning information and the forecast of disaster in time.



**Figure 5 Vulnerability of women in disaster period**

In aspect of *post disaster period* respondents explicated different views.

42 respondents pointed out that during post disaster period the main problem would be food crisis. Women are supposed to arrange food for the men and the other members of the family. This responsibility makes the risk of malnutrition of them. Because, most of time women pass their day with hunger in order to make sure enough food for the family members. However, in post disaster period people suffer scarcity of food and depend on relief. 37 respondents cited that the vulnerability of women in disaster period was having responsibility for domestic tasks such as producing and cooking food, fetching water, looking after children and caring for the sick and elderly. All of these responsibilities became as social burden to women since that time leading daily life is quite tough. The rest 21 respondents focused on having a specific kind of need for sewerage and health as vulnerability of women. Some of the respondents also mentioned that these problems have different psychological impact.



**Figure 6 Vulnerability of women in post disaster period**

*Focus Group Discussions (FGD):*

There were five Focus Group Discussion (FGD) conducted. In all FGDs all respondents complied with that the sufferings of women higher than men in all genres of disaster period.

From five FGDs women mentioned the reasons of their vulnerability in *pre disaster time*.

They let knew:

- Because of not receiving early warning information and the forecast of disaster in time, but Information can pass from male to male easily, especially in the public places. Most of the time they failed to understand the severity of the situation that whether they leave their home for shelter home or not. Therefore they were waiting for the male person of the home.
- Due to their limited decision making abilities in how to respond when disasters hit.
- Usually women are not allowed to go outside without informing their male relatives.

However, men persons of the focus group discussion, argued that though usually they got the warning information fast than women but because of living in remote areas and far away from each other making it difficult to reach and mobilize in proper time.

Both men and women cited the problems occurred *in disaster time*. They focused on ensuring necessity of drinking water, medicine, healthcare and providing enough food at cyclone shelter in disaster time as their primary need. They told that this issue should take into account properly. They also told that flood refuge also not enough.

In order to narrate the vulnerability *in post disaster period*, some of the male members cited that they are poor fishermen and are the greatest victims of any cyclones, because they commonly lose their fishing boats and other necessary equipments. That means they lose their bag and baggage in the devastating disasters mostly in cyclone. Thus they become very destitute after any disaster and therefore all members of the family have to suffer for a long time. This is not only vulnerability of men, this situation also suffers women in order to arrange food for family



members. Along with there is lack of economic opportunities for women in post disaster period which also resulting in food insecurity.

Ethnic minority Rakhain men and women mentioned their vulnerability and that illustrated different dimension of helplessness. Rakhain women cited that they preferred to live in their own home rather to go to shelter home because of having fear of land grabbing and displacement. Rakhain men focused that there are lack of specific objectives concerning needs and concerns of ethnic minority people in mainstream policies of government.

#### Direct Participation and Observation:

From direct participation and observation the records about vulnerability facing and suffering women are given below:

It was observed that discrimination, exclusion and marginalization based on the sexual identity is a pre- disaster characteristic of a society, and such characteristics is a root cause of vulnerability, which made women more exposed to disasters than other.

This underprivileged position leads to a higher threat of poverty for women as a social group. It also subjects them to other risks such as physical and emotional violence, exploitation, and natural disasters.

### **Data Analysis**

Study revealed many forms of vulnerability of women and the causes of it. Here it is aimed to depict the overall situation of vulnerability of women through the data were collected from field study owing to illustrate the position of women.

#### Receiving Early warning Signal

Because of not having radio, television, internet or mobile phone and so no available, there is the lack of information and modern weather forecasting technologies. Therefore, people of this area suffer to get the real time warning signal. Moreover, in most cases women are neglected to provide warning information via men and are not inspired to evacuate.

The pictures of having warning signal at kolapara that the majority of women are left aside from most information lines. Women living at kolapara have limited access to information including early warning systems. Therefore, women are less able to minimize risks because they did not get enough time to get prepared for their own and families to cope with vulnerabilities. In contrast, women practically shoulder the whole responsibility of looking after the children and protecting their families.

#### Detrimental Collision on Women's Health and Sanitation

Research discovered that majority respondents of the study area had lack of sufficient food and drinking water which detrimental to health. In the study breastfeeding women were under the scarcity of suitable places for babies' breastfeeding and proper sanitary materials. Therefore, they were affected by different physiological problems due to unhygienic conditions, faced vulnerability to reproductive and sexual health problems. Also socialization factors such as the negligence of these basic needs along with women, play an important role in determining their health condition

### Food and Nutrition

This study reported that the general view is women in matters of their taking food are always neglected. Principally, most of the time women eat less during shortages of food and it is frequently occurred during and after disaster. As a result women are always deficient in nutrition and calorie intake.

### Availability of Drinking Water

Field study revealed that generally people living at Kolapara used tube-well water before disaster as the major drinking water source. After happening hazard pure drinking water was not available at the study area. Drinking water becomes an acute crisis for household use. Women get responsibility to provide drinking water for their families. This responsibility makes women more vulnerable in disaster period, because that time women hold the utmost risk of getting in contact with unclean and polluted water and attacked by diseases after emergency and suffered by water-borne diseases.

### Capacity of Buying Food and Medicine

Study showed that women suffering from malnutrition because of having no sufficient capacity to buy food. Furthermore, women chronically suffer from attacked diseases because of not being able to buy medicine.

Women suffered a great due to lack of access to and control over resources.

### Condition of Sanitary Latrine for Women Use

In the study area most of the women use non-sealed sanitary latrine and few of them use sealed sanitary latrine. There is a major portion of women have no sanitary latrine. Most of the sealed latrines are fenced with banana or coconut leaf or plastic or rope tied with bamboo pillar.

Sanitation facilities at Kolapara were affected by the flood, inundation and submergence of water and become unfit for use after disasters. Overall it creates an unhealthy damp environment and increases the chances of disease and respondents leave their closet in open space which is very unhealthy. Use of soap was rare found. The primary health care for the families is still inadequate and they mostly depend on the traditional knowledge and local quack doctors.



Picture: 6 A sanitary latrine at Kolapara

In fine, Women's vulnerabilities are accelerated by the extensive presence of inequality characterized by poor health, disease, hunger, malnourishment, illiteracy, restricted access to resources, poor housing, unemployment, and the lack of access to basic services such as water,

sewage, electricity and so forth. The situation turns even worse under policy and performance breakdown in the planning for and response to the needs of women of the most vulnerable categories.

Therefore, understanding vulnerability of the women is a prerequisite for understanding disaster risk and the development of risk reduction and adaptation strategies to extreme natural events.

### **The Policies Taken for Women in Disaster Management Plan in Bangladesh**

Bangladesh, as the largest deltaic and low land, is one of the greatest victims of natural disasters. In the context of globalized environmental degradation, Bangladesh is one of the major victims. Bangladesh has been struggling to cope with this situation for a long time. However, affect of natural disasters often hinder the development of the country.

It is indicating that rising temperature has severe consequences for economic growth, since some results point out two key issues:

- First, higher temperature substantially reduces economic growth in poor countries; and
- Second, higher temperature has wide-ranging effects, reducing agricultural output, industrial output, and political stability.

The government of Bangladesh, led by the Ministry of Disaster Management and Relief, has undertaken various steps in the form of policy, strategy and programs considering the concept of disaster management through mitigation, preparedness, recovery and rehabilitation. The government established the Disaster Management Bureau (DMB) under the Ministry of Disaster Management in 1993 to promote disaster prevention, mitigation and preparedness; to provide guidelines; and to organize training and awareness for the concerned people and stakeholders to mitigate the impacts of disasters. Currently, the DMB has focused on risk reduction through community mobilization, capacity-building and linking risk reduction with the socio-economic development of the poor and vulnerable groups and with developing the DMB's partnership with other government agencies, NGOs and international organizations.

The primary challenge for Bangladesh is to scale up investments to create a suitable environment for the economic and social development of the country and to secure the wellbeing of people, especially the poorest and most vulnerable groups, including women and children.

In addition, internal development factors also worsen the disaster impact. These include population density, high poverty and inequality, weak infrastructure, limited integration of disaster into planning and low human development progress.

Thus, along with promoting rights and entitlements of women, should envisaged to cater to all these differential and specific requirements ensuring equal access of women to political, economic and social space.

The policies of disaster management of Bangladesh taken for w omen described in the chapter 3 of this study. This chapter illustrate the policies were taken by government and especially aimed to explicit the policies taken for women.

### **Whether the women are benefited by these policies or not**

There are different types of policies on gender perspective. Some policies are taken for considering long term outcome and some of them are taken for short term effect. The purpose of some policies is to rebuild social mind set up in order to enabling environment for women's advancement and some policies principles were to construct physical infrastructure of the area to enhance women's economic benefits. There are some policies to ensure social safety of women, to create women's voice and agency and to improve women's human capabilities.

All over the on paper depiction of the policies taken in Bangladesh is ensuring empowerment of women.

For instance, the mentionable policies in Bangladesh are given below

- Employment of at least one third poorest women in the Employment Generation of Ultra-poor programme.
- Providing continuous support to the distressed women through some social safety net programmes like Test Relief, Food for Work, and Vulnerable Group Feeding.
- Involvement in disaster awareness activities and livelihood training.
- An effective transport system for rescuing people especially women and children during disasters. The lives of women and children are also saved at shelters provided during floods and cyclones.
- Construction and maintenance of flood and cyclone centers.
- Involvement in awareness building activities concerning disasters which improve women's skills, community empowerment, capacity building, response management activities are.
- Women and children are taken to the safe shelter homes when there are "disaster warnings". Medicines are being distributed to them. As a result, disaster risk of women and children is being reduced and which enhances their overall social and economic power.
- Arranging risk reduction programmes and training.
- Providing Safe drinking water and sanitation facilities and medicine.
- Under 'Cyclone Preparedness Program', volunteers have been trained. One fifth among them will be woman which positively indicates their enthusiasm for social service, thus improving their social status.

It is observed that there is a great gap between policies and the implementation process of these policies. From questionnaire survey and focus group discussion some issues came to front line. These issues are getting early warning signal, transportation system for taking women at shelter home, environment of shelter home, security of women, getting relief and so on. It seems that people living at Kolpara intended to point out the problems from which they suffered directly and still there is no hopeful change is happened.

#### Data from Questionnaire Survey

1. According to the question, '*Do you think disaster has made several changes in last ten years? If answer is YES, then what is/are the kind of that change(s)?*' among 100 respondents all agreed that they noticed changes. However, there are different views on types of changes. 52 persons of the total respondents focused on structural changes of the village, 26 persons on occupation, 15 persons on environmental change and 7 persons on others.

All agreed that climate especially soil and temperature is changing. In pointing out its impacts they mentioned that production of crops minimizing day by day, now a days so many certain types of plants, birds and other animals are demolished, the river that has changed its direction.

2. There are so many replies to the question - ‘*According to your opinion what is the main disaster in your union?*’ From all respondent’s answers the usual disasters at this union are cyclone, seasonal storms, flood, salinity which occur frequently in their village. 78 respondents out of 100 like almost all the people indicate cyclone as the main disaster. Around 12 respondents consider flood and 10 respondents consider salinity as their disaster. They point out summer and autumn season as the time of cyclone in yearly calendar which actually refers to the pre-monsoon and post-monsoon period. It is also the time of storms. Flood usually occurs in monsoon period and sometimes during the time of cyclone. Salinity is a regular phenomenon



Photo 7: Tidal flow due to heavy rain

3. ‘*How do you receive the forecast of disaster? Do you satisfied with the recent condition of warning system? If answer is ‘NO’, then explain why you are not satisfied. In order to improve the present condition what is your suggestion?*’

All respondents stated the feature of the forecast of disaster. 32 out of 38 male respondents told that they have to depend for the forecast of disaster from Bangladesh Television (BTV), Bangladesh Radio station. Furthermore, the volunteer of Red Cross announce the forecast recurrently. They have a community radio which declares the alarm too. Sometimes, they affront frequency complication. Only the rest 6 old people demanded that they understand it through their own traditional perception such as the movement of air from the northwest angle, the crazy nature of their livestock, the absence of birds in their village. But they also rely on Television and radio.

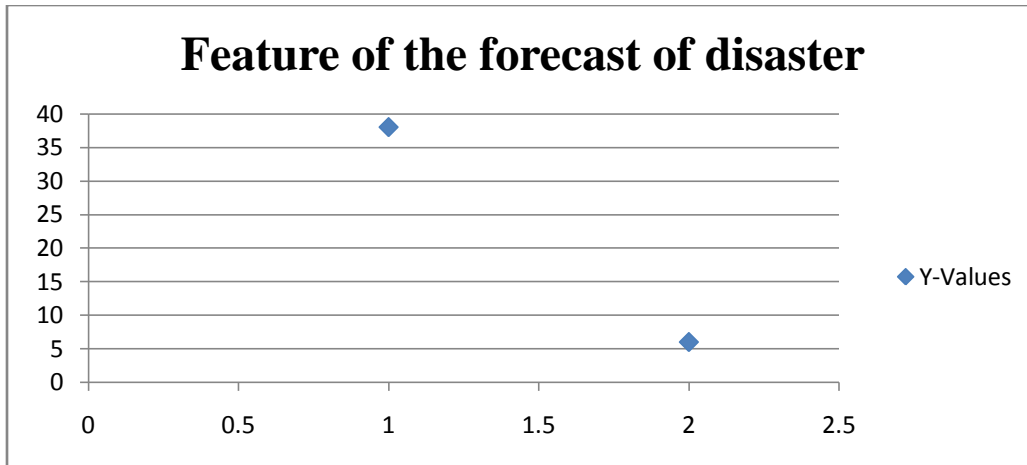


Figure 7 Feature of the forecast of disaster

4. *‘What is general role of women in disaster time?’*

From all respondent’s answer it may illustrated the role of women in disaster period is given below:

When they ensured about a forthcoming disaster, usually they prepare goods and arrange food storage. Man and women both make their livestock ready and before their leave for shelter home. Essentially, women mostly emphasize on livestock, children and old member of the family who are unable to move.

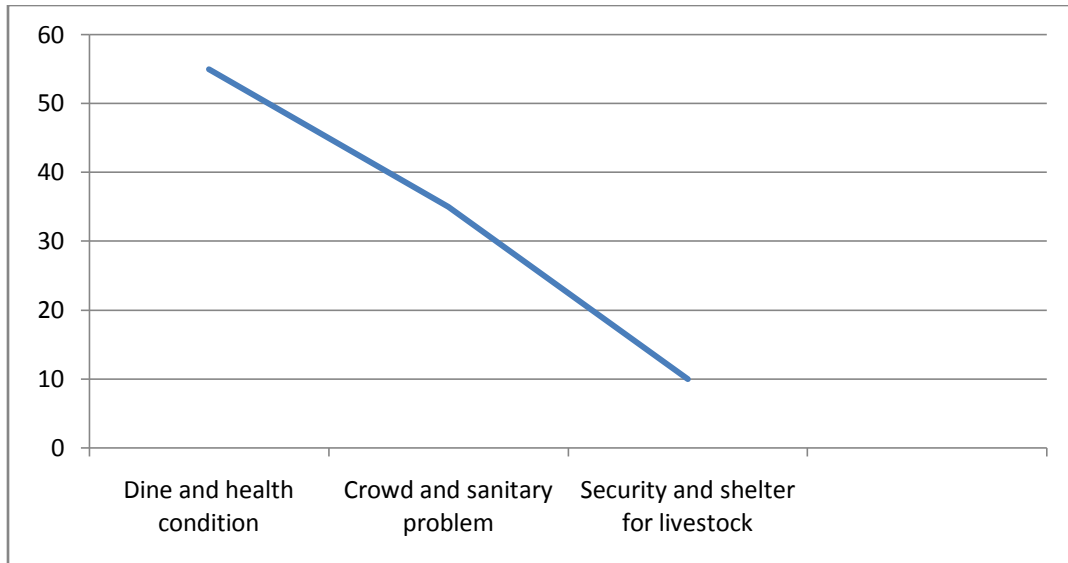
The entire respondent replied they do not get any kind of facilities without signals in pre disaster period.

5. There is a question in questionnaire that *‘What is the major problem for women of a shelter home in your opinion?’*

Entire respondents stated to the following question that there are scarcity of sufficient drinking water, medicine, healthcare and enough food.

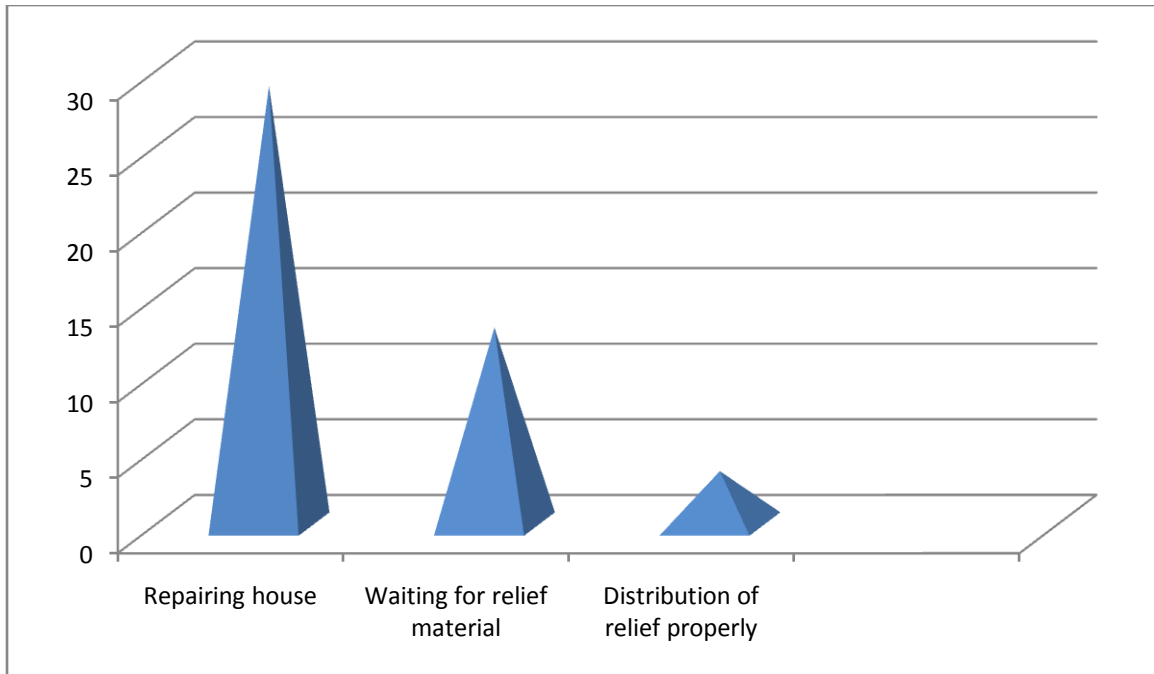
55 of the respondents emphasized on dine and health condition. They mentioned though some foods like banana, biscuits and hotchpots, dry rice (chira), saline and so on were given by local leader, rich people, Union Parishad and some NGOs but these are not enough for them. They counted it as short-time initiatives. Because of having insufficient saline and water purifying tablets, this situation increase risk of health. People took shelter in shelter home got injured and affected by diarrhea. Although there is a decrepit community hospital, it becomes useless then.

35 respondents believed that there was no insecurity without some disturbances like much crowd or sanitary problems. But they do not think these are so crux for them. The rest 10 respondents mentioned to the lack of security and shelter for their livestock in shelter home as the major problem. They did not get any facilities, aids from anywhere for their helpless livestock. Even after the disaster the relief materials do not include any items for livestock. They suggested including food and medicine for them and for their livestock in shelter home.



**Figure 8 Major problem for women of a shelter home**

6. In giving answer to the question ‘*Do you involve with volunteer activities? If not then do you want to involve and taking relevant training for this reason? Explain why the answer is YES or NO.*’ Sadly, all 100 respondents were not involved with volunteer activities. Among 38 male respondents, 28 men told that they want to involve but had to pass all over day for working to ensure daily food for family. 7 of them stated that this activity is not their duty. It should be done by government or NGOs staff. The rest 3 of them showed no interest about the issue.  
Among 62 female respondents, 32 women told that they passed all day with household chores. They have to look after children, old members of the family and livestock. 17 of them mentioned that their male relatives did not give them permission to do volunteer work and go to training center. They told that without permission they can not involve with volunteer work, since some of them have interest to involve. Another 9 women respondent stated that usually training centre situated far from their home which is a problem to attend. They also mentioned that if they became busy with training, their household chores would be hampered. The remains 4 women respondents told it is not their business at all. Therefore they are reluctant to involve with volunteer works
  
7. ‘*What is the key trouble begins after the disaster in your view?*’  
41 respondents reported about their working crisis for a long time as the key trouble after the disaster. 29 respondents believed that repairing their house which almost time became destroyed is the key trouble. 13 respondents reported that waiting for the relief materials, financial aids and collecting foods for their livestock as the key troubles which begins after the disaster.  
Rest 17 respondents reported that although sufficient reliefs are sent to their village but are not distributed properly. They want honesty in this work. Some of them cited that relief materials are not equally distributed. They think that government should see this matter carefully.



**Figure 9 The key trouble occurs after disaster**

**Focus Group Discussions (FGD):**

The social barrier of women was highlighted in all FGDs through participant’s comments and experience sharing.

There are rule to have female members in all level disaster management committees. However, the reality is, importance of their existence is subdued. Respondents of FGDs told that usually women only confirm their presence at the meeting. Their activities confined in to put their signature. Their participation remains as a token participation. Besides this, most female members of the disaster management committees are also member of Union Parishad. Kith and kin of many influential people like wife and sisters were elected as union member. Therefore, they have no accountability of the mass people.

Sooth to say, they do not have sufficient courage to speak out the right point.

From FGDs it was demanded that it is necessary to improve transportation system. In Kolapara there is only a paved way road (pacca) which is considered as the main road of the area. There sub-roads are mud way. In disaster time it became difficult for women to reach in shelter home through passing these mud ways with carrying essential materials along with their child and old members of the family and livestock. Since there is policy of the government to transport preferably women, children and aged people in shelter home with transportation in disaster time this is totally unknown to them. They even did not see that other availed this facility. They told that it is not possible to run a transport because of mud way. Therefore, it is important to improve road and transportation system.





Photo 8: Heavy rain at Kolapara

In the point of shelters home, all FGD's feedback is that the number of shelter home is not sufficient. At the same time most of the women preferred to stay own home rather to go to cyclone shelter home. They did not want to leave their cattle and other assets behind. They also mentioned that there was lack of sanitation facilities. They bounded to share toilet with man. They felt serious uncomfortable in using toilet. Pregnant women need delivery and such other facilities in refuge which is absent in shelter home. Women also stated the necessity of child care and addressed the trouble of safety and security concerns at cyclone shelter in disaster period. They mentioned that many women become victim of violence specifically physical and psychological forms of violence. Therefore many women and girls do not take refuge in shelters during disasters due to a lack of personal security.

All over, they emphasized the necessity of cyclone shelter's design that addresses the need of women.

They get relief materials and financial aids from several organizations and NGOs. It should be kept in mind that a woman does not merely a woman. She can be a pregnant mother, may be a woman with a new-born baby, of old age and even an adolescent girl. But we never consider these differences during allocation and distribution of relief for them and take a one way approach.

However, most of them think it is not enough. Therefore, they have suggested to include more items and a larger amount of these items should be recruited. They cited that those relief materials are useless which do not encompass their prime needs. According to the responses, it needs one to three years to recover their loss.

The all respondents of FGDs cited that they are worried about interruption of their children's schooling.

#### Direct Participation and Observation:

From direct participation and observation the causes of the focus problems are revealed:

1. high incidence of poverty and social inequity;
2. low literacy rate, poor institutional capacity;
3. inadequate financial resources, and insufficient infrastructure;
4. Moreover, socio-cultural norms restrict a large proportion of women to domestic responsibilities and limited access to education and health;

5. Pollution and environmental degradation affect women disproportionately due to their lack of economic and other ability to cope. Rural women are especially vulnerable as their livelihoods directly depend on natural resources.

## **Data Examination**

This study discovered that there are so many gender sensitive policies nevertheless in implementation process it is still far away from reaching satisfactory level. It is also observed that social norms, values and practices are the hindrance of it. One obstacle generates so many other bars.

The result of data examination is given below:

### Getting relief

The behind reasons of the above mentioned constraints, faced by women during relief collection was intended to reveal by this Research. It was observed that

- lack of transport facilities;
- walking long distance to the relief distribution place;
- Loss of dignity and harassments by men while waiting in the relief line and standing in queues with male people is a common in all types of disaster.

### The environment of shelter home

Study unveiled that majority of the respondents prefer to stay in their own residences during the disaster. They feared about losing their possessions. Analysis showed that due to lack of security most of the female respondents faced physical and mental torture. Among other respondents some experienced theft and faced sexual harassment in the shelter. A few number mentioned that they faced lack of social network, communication problems and lack of transportation facilities in the shelter.

It could be concluded that sexual violence against women became extensive at the shelter centers during floods. All these factors create psycho-social impact on women's life.

### Make Contact with Polluted Water

Analysis found that women and girls face maximum risk of getting in contact with polluted water and falling sick during and after disasters and suffered by water-borne diseases.



Photo 9: Big tree be drowned half under water after having a good shower of rain

### Apply of Sanitary Practices

Study shows that most of the women clean their hands with water, soil or ash. After hazard saline water intrusion becomes major problem and therefore tube-wells the source of drinking water become out of order. In disaster period people struggle to meet the minimum requirements of basic needs. Therefore, they even cannot think to use soap.

It was found that after disasters the rate of hygiene practices are getting deterioration.

#### Rearing livestock and household related activities

In the study areas, women are the first to provide nursing care for the injured animals whether it is a flood or any calamities before any official relief work or activities of veterinary services begins. In disaster period, to avoid the loss of these assets they sell these sources of cash income in order to meet household financial needs during disaster and when her husband's or male has no income.

One of the key roles of making disaster management policy should be to identify the women needs and address the needs in a sensitive way. Gender and social exclusion analysis could be a key start in the process of planning for disaster risk management and relevant policy. Programmes and institutions could be responsive to address the key analysis imperatives into a comprehensive manner. Addressing women needs and ensuring women participation will therefore make the disaster risk management more comprehensive in Bangladesh.

#### **The policies needed to be implemented for women.**

- Although women are key contributors to disaster management, policies and programmes are not designed or delivered through an analysis of their needs. Inclusion of persons with disabilities, children are also lacking in the current framework that needs to pay special attention to address vulnerabilities of the most vulnerable sections of communities at risk;
- Many forms of the vulnerability of women have received attention and investment in disaster management phases. However, recovery of women's vulnerability and "building back better" has largely been overlooked. It is not prominent practice here and, consequently, undermines the development of women's vulnerability resilience;
- Have to strength service related to early warning about calamities and information, shelters, livelihood support etc. Community radio and community networks should be strength to disseminate warning to women and men through;
- Adoption of a comprehensive national disaster management policy for women, with clear guidelines for an effective partnership of all stakeholders;
- In order to reduce women's vulnerability, coordination of the functions of disaster management and climate change communities is necessary. This is likely to help integrate prevention with preparedness, response and recovery efforts, in both short-term and long-term perspectives; CDMP appears to be beginning in the right direction;
- Strengthening the capacity of the MoFDM and other disaster management-related agencies and committees at all levels, with particular emphasis on the district-level disaster management committees (DDMC). Each of the DDMC in the risk-prone areas can be equipped with a Geographic Information System (GIS) Cell as a planning tool for managing development and vulnerability reduction activities;
- Establishment of small teams with ensuring women participation at all levels of DMCs to better coordinate and integrate disaster management planning and activities from the national to local levels;

- Ensuring participation of women in the Disaster Management Committees (DMC) at all levels. Succeeding sharing of women, and not to confine their contribution as token participation. It is important to organize meetings at regular intervals;
- Strengthening monitoring and evaluation the state for future betterment at all levels, with the involvement of local stakeholders. Therefore have to establish broad-based and inclusive monitoring and evaluation committees and there must have to ensure the active presence and participation of women;
- Improving and safeguarding women's access to income and jobs and enhancing their participation in the male domain such as markets of services, inputs, products;
- Dissemination of early warning by young women volunteers and also work in response and recovery;
- taking necessary steps for prepare houses before the disaster risk;
- The existing policy and planning framework of the Government in disaster management are not readily inclusive for minority communities;
- Lack of gender-friendly health services continues to be a challenge. Physical infrastructures usually have unsanitary facilities making it difficult for women;
- Non-respect of privacy and confidentiality, particularly in outdoor consultation is another issue that greatly dampens a woman's experience in health services and discourages their subsequent involvement;
- Absence of female doctors and other health personnel particularly in rural areas restricts acceptability of services to women;
- Training courses should be held at times of day when women are able to attend. Providing child-care can improve attendance. Training may need to be tailored to the educational level of women.

Finally, Evidences from Bangladesh suggest that individuals and communities are differentially exposed and vulnerable to disasters depending on factors such as wealth, education, race, ethnicity, religion, gender, age, class, caste, disability, and health status. This is because society transforms natural hazards of different intensities or magnitudes through social processes that increase the exposure and vulnerability of women, their livelihoods, production, support infrastructure, and services.

Owing to ensure women's participation in mitigating their disaster-related vulnerability, it is important to develop a network among the government, NGOs, researchers, academics, journalists and other professionals.

# **Case Study**

## Case Study 1

Umрахайн Рахайн

Sex: Female,

Age: 21,

Occupation: Student (She is also a teacher in a primary school);

Family Members: 5;

Education: Degree 1<sup>st</sup> year;

Marital status: Unmarried

Umрахайн Рахайн lives at the Рахайн пара in Колара.

In her opinion in disaster time there is unwritten work division between men and women in her family. Male members of the family usually do heavy work such as bring livestock, place paddy and other crops and Important documents and papers to safe place. Women generally do domestic chores such as storage dry food, look after children and aged persons of the family.

She mentioned 'Sidr' as the biggest cyclone ever she has seen. This disaster was occurred on 15 November 2007. Umрахайн shared her experience about the disaster. She told, no one even Red Crescent and NGOs got the signal in due time. They started running when the wind blew off. Since all members of her family got secured that time but they observed so many people died in number for this reason.

She stated that usually they did not get the early warning in time. Therefore, they could not get proper time to start for shelter home with necessary materials. She also cited, in the time of Tornado 'Mohasen' which occurred 16th May, 2013, after finishing the shock of that tornado, Bangladesh Betar continued the announcement that the tornado was still strong and coming towards costal area which made them confused.



Photo 10: Living place and sanitary situation at Рахайн пара

Generally Umрахайн do not want to leave their home. However, being a minority they are afraid of grabbing their assets.

She mentioned that, after disaster period male and female members of her family both do hard labour. However, there are so many other families in their Рахайн пара, where some male members who are not conscious of the family situation and do not care about it. They ignore the responsibilities and leave all deeds to female members of the family.

Umrahain never get relief from neither government nor NGO organizations. Umrahain told that after a disaster they have to start their life from beginning.

## Case Study 2

Mariam khatun

Sex: Female,

Age: 38,

Occupation: Housewife

Family Members: 7;

Marital status: Married

Mariam Khatun lives at Kolapara union. She lost her everything in the time of cyclone ‘Sidr’. Her elder son also died in that cyclone. Now she is living in a slum which is created for the people who were affected by ‘Sidr’. She described her vulnerability of that time. She passed whole night with wet shari. Long time did not take any food. When this interview was taking she was just come back from the sea shore. She went to look for her boat. Just few minutes age it was drowned. She was crying. Her younger son went to sea to search the boat.



Photo 11: Mariam khatun was crying while describing her miseries



Photo 12: Mariam khatun and her neighbor were showing their in danger living place given by government after cyclone ‘Sidr’

After cyclone “Sidar”, there were some training organized for women. That time Mariam wanted to attend. However her husband did not give her permission because of having all male instructors and the training venue was not at her convenient place. Even she was victim of physical torture because of attending disaster management training programme. She demanded that it is necessary to provide enough food since they will not be able to give time for household works at training time.

Because of disaster the pond water becomes salty. Therefore Mariam usually go almost 1-2 kilometer for collecting safe drinking water for her family. She explained her vulnerability that

transport cannot run smoothly even a van in kolapara Union, in disaster time it is beyond thinking. Therefore she walked a long way every day for collecting water. Owing to solve this problem she stated to set up tube well at high place. The duty of maintaining household works mainly depend upon women members of her family. Mariam takes sufferings of disaster as usual and as the result of her fate.

### Role of women

Despite these challenges, experience has shown that women often play a proactive role in the restoration of household and community functions when hazards and stresses occur. During hazards' exposure, women play important roles in ensuring the safety of younger or older members of the family.

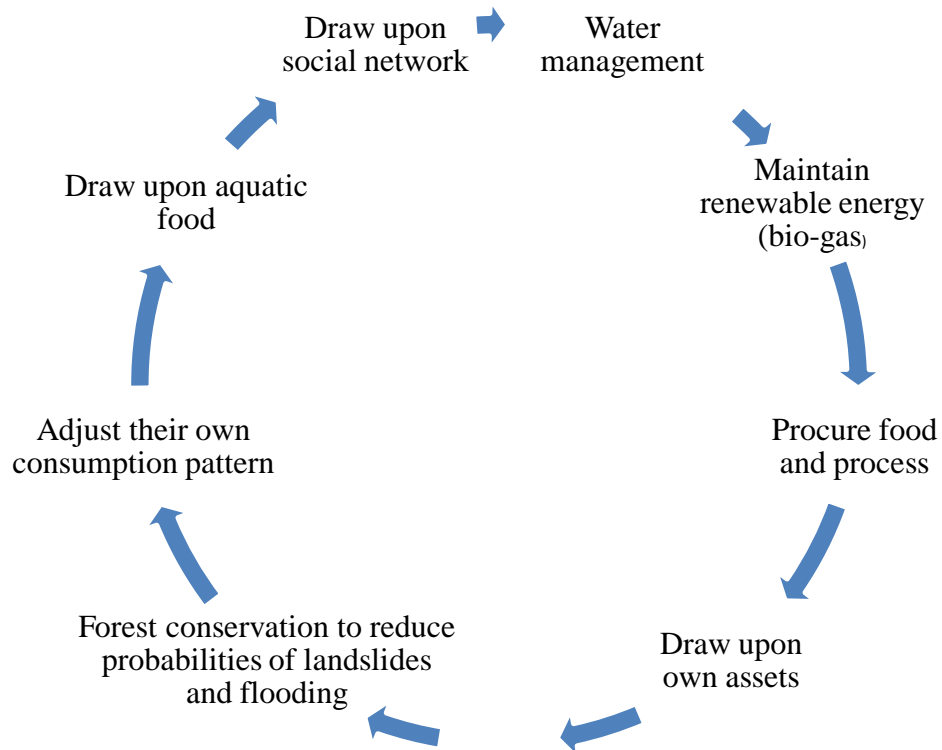


Figure 10 Role of women

A majority of women prefers to rely on lifestyle changes rather than on technological progress only. Most of the respondents have no plan how to recover their loss. Few of them have a little savings which is used to recover loss in post disaster period.



## Vulnerability of Women in Disaster Period

Limited access to education and health

Unequal power

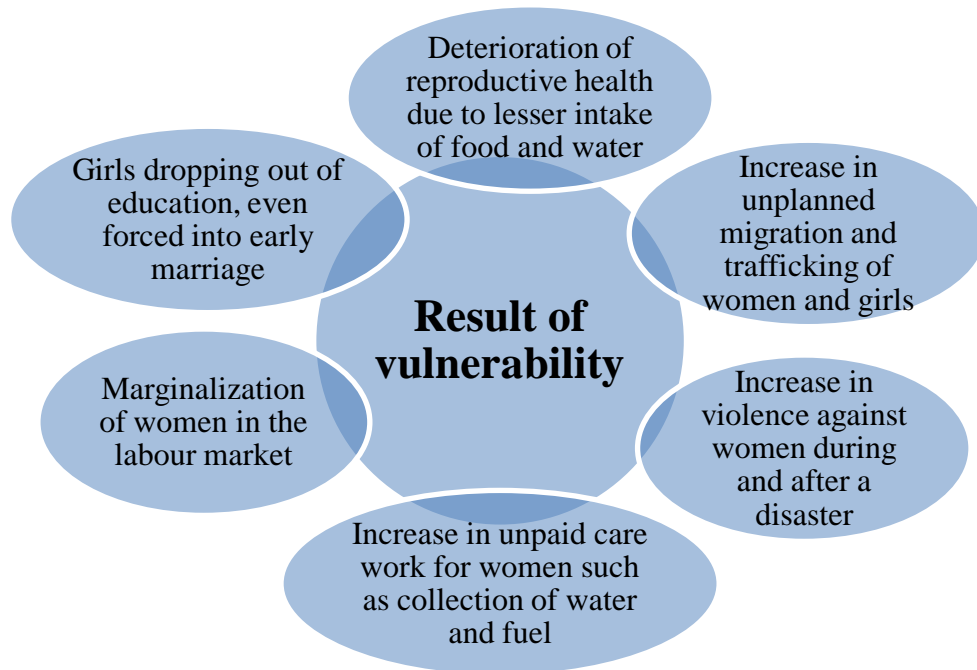
Societal inequality

Socio-cultural norms restrict a large proportion of women to domestic responsibilities

Lack of information

Lack of decision making ability

## Result of vulnerability



Despite these challenges, experience has shown that women often play a proactive role in the restoration of household and community functions when hazards and stresses occur.

## Empowerment of Women

In terms of empowerment, any natural disasters usually make women more vulnerable, as they become the major victims due to natural disasters. Thus they are disempowered in Bangladesh in the context of global empowerment of women.

Necessary steps to empower women are

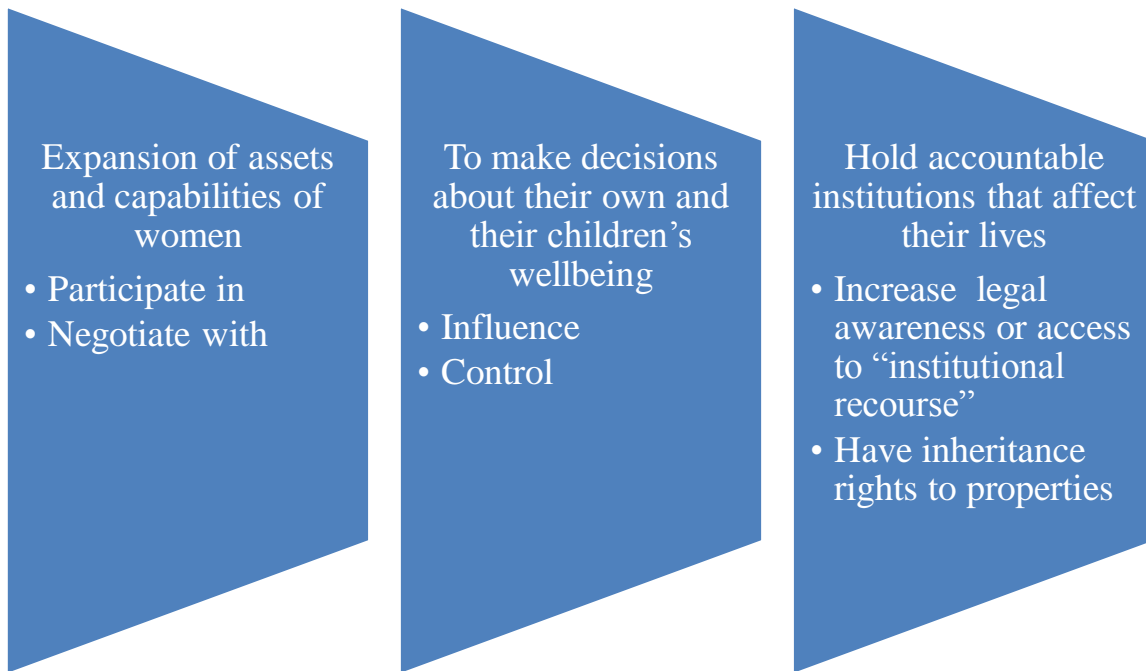


Figure 11 Necessary steps to empower women

## Female Respondents of the Study Demanded Circle of Disaster Management

All respondent made this disaster prepared circle which they think appropriate initiative to bring systemic changes:

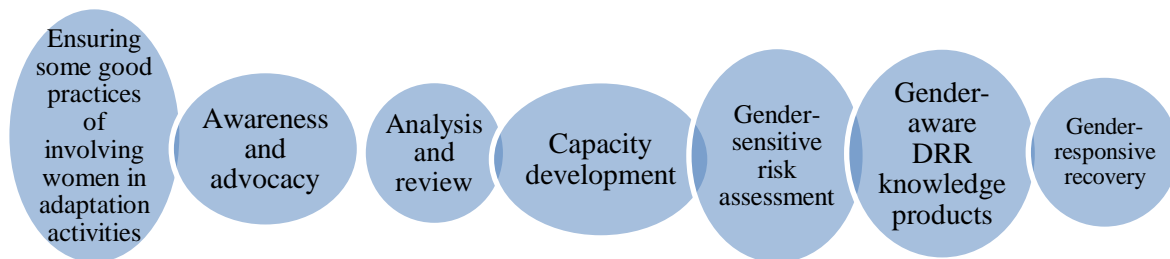


Figure 12 Key Points of Ensuring Women Friendly Disaster Management Policies

## **Data Assessment and Findings**

The findings of the study reveal that, formally and legislatively, the government of Bangladesh in recent years has taken a comprehensive and integrated approach on women's necessitating in disaster management policy. As a result, it was expected that both preparedness and response capacity on women issue should be increased. However, synergy and multiplier effects are still missing. This study shows that no, or only a very limited, participation of women in disaster management has yet been established. It is necessary for policymakers to understand the perspective of women's need, the impacts of disaster, and the levels of vulnerability of women in truth. In order to improve information, knowledge, resource support and services for women have to confirm women's participation in policy making and give importance their experiences, sharing and sufferings.

However, the absence of strong participation of women in policy making all initiatives taken by government remains largely on paper. This Study discovered that women's vulnerability to disaster is a combination effect of both disaster and social factors. The first factor includes exposure to disasters such as -cyclone, storm surge, tidal flood, bank erosion and so on. The second factor involves social arrangements and expectations related to status of gender, age, livelihood, availability of basic needs, social safety and existing social barriers to the full participation of women in all phases of disaster management activities.

Bangladesh has a long tradition in incorporating gender aspects and promoting women leadership in Disaster Risk Reduction (DRR) at local and national level through policy directions. As part of the cyclone and flood response plans gender issues were incorporated and the national disaster management planning does priorities violence against women as a key priority to protect women interests in disaster management. However, true gender mainstreaming in Disaster Risk Reduction (DRR) is limited.

Sooth to say, there are so many policies to enhance the position of women in disaster management of Bangladesh. All good initiatives are remaining on paper in reality but its proper implementation still a myth for the women who are leading a vulnerable life.

Widespread hazard withstanding culture and practices has made Bangladeshi women resolute, although they deserve much better management policies to be able to defy odds and become resilient.

## Recommendation

Necessary steps should be taken to ensure women empowerment and enhance their capacity in disaster resilience and gender-sensitive policy planning. It would help them take leadership to address the challenges:

1. Disaster management is a process that requires ensuring participation of women.
2. Sensitive projects should be designed through a proper participatory process, where the concerns of local people, especially women and the marginalized population, will be duly addressed.
3. There should also be a project monitoring system which allows women's voice to be incorporated and evaluated.
4. Ensuring investment in research and innovation towards bridging the knowledge gap between myth and realities of women's position.
5. Disaster Risk Reduction is a multi-sector business. It is not possible for government alone to tackle disaster unless strong collaboration among all the relevant stakeholders such as government, NGOs, researchers, scientists, civil society, private sector, media etc. are established and maintained. Collaborative efforts can strengthen the preparedness activities at all level and reduce the impact of disasters.
6. Mainstreaming of DM policies for women and practice across government and also ensuring clear advocacy and technical assistance role for women related policies which could help promote and deliver mainstreamed DM outcomes.
7. Develop warning systems so that women can get the early warning of disaster and they do not have to depend on man.
8. Ensuring livelihood diversification into more resilient.
9. Empowering women through employment.
10. Major policies and plans to deliver women an effective disaster management and risk reduction are not always fully implemented. Monitoring and accountability systems are essential to ensure implementation.
11. Mechanisms to build capacity and finance of women and delegate responsibility to them need to be improved.
12. Disaster management is often considered as a standalone activity of the MoDMR and is not integrated into the district and upazila level development planning processes. Community participation is prone to elite capture and lacks genuine accountability mechanisms for women to make their voices heard.
13. Many of the disaster management phases have received attention and investment, but disaster recovery and "building back better" has largely been overlooked. It is not prominent in policy and practice and, consequently, undermines the development of the vulnerability of women.
14. Have to build institutional mechanism to establish linkage and coordination with NGOs and the private sector to address issues related to women in a comprehensive manner.
15. Ought to comprehensive understanding of the problems of women.
16. Women's capacity to play effective role in DRR related committees should be strengthened.
17. Women's livelihood services would continue to ensure food security (such as low gestation and less water intensive crops, food storage and preservation technology, and food preservation during calamities).

18. Providing women with greater access to employment guarantee schemes, skills development, technology, entrepreneurship support and training would continue.
19. Women would be given due compensation for loss of livelihoods and assets for involuntary resettlement during land acquisition and construction of infrastructure through resettlement plans.
20. Also women's engagement in climate change mitigation measures would be increased, such as,
  - knowledge of technology with low carbon emission;
  - forest and biodiversity conservation;
  - access to renewable energy (solar, wind, bio-gas); and
  - scientific waste management.
21. More programmes would include active engagement of men in all spheres to promote women's advancement and curb men's involvement or support of harmful practices.
22. Men would be informed and involved in promoting gender equality as they often control or influence social behaviour, women's mobility outside home and access to reproductive health care.
23. Further work needs to be done to explore how women cope and adapt as a result of disasters and recognition of how this unpaid work contributes to community resilience across Bangladesh.

These recommendations propose a framework that outlines new roles and responsibilities for ensuing presence of women's need in disaster management policies. Implementation of the framework could lead to enhance the women's position in disaster management in Bangladesh

## **Conclusion**

Women's position in society often makes them more vulnerable than men. They tend to have less access to livelihood resources and income earning opportunities. Though women in the study area are worse victim they do carry out major vital role in coping with and prepared for prevention, response, recovery and adaptation activities.

Women tend to be under represented in decision-making processes due to various factors including active exclusion by men, lack of time to participate due to domestic responsibilities, and lack of confidence to express their views. Moreover, as cultural sanctions, they have restricted access to resources, services and decision-making. Therefore, the vulnerability of women is extremely high and thus they are most at risk among the community. Present study discovered that they have the remarkable potentiality to make greater contributions to their own safety as well as that of others including family members. It is important to address the deep-rooted social inequalities between women, men and groups as a long-term process, rather than a one-off project activity. Addressing women's issues must be a multi-level process, so that gender perspectives are incorporated into formal policies and institutions relating to disasters and livelihoods from local to national levels. Actions very often need to be tailored to ensure that women are able to participate equally. For this, it is necessary to ensure transparency, accountability all over good governance in implementing disaster management policies.

More attention needs to be given to developing gender specific action plan in which women can participate in all phases of disaster.

## Reference

1. Ahmed, M. F. Alternative Water Supply Options for Arsenic Affected areas of Bangladesh, ITN, BUET, Dhaka, Bangladesh and WSP-SA, 2002.
2. Azad, A. K., Hossain, K. M. and Nasreen, M. 2013. Flood-Induced Vulnerabilities and Problems Encountered by Women in Northern Bangladesh. *Int. J. Disaster Risk Sci*, 4 (4): 190–199.
3. Agrawala, S., Ota, T., Ahmed, A.U. et al., 2003: Development and Climate Change in Bangladesh: Focus on Coastal Flooding and the Sundarbans. Organisation for Economic Co-operation and Development (OECD), Paris, 70 pp.
4. Ahmad, Q.K., N. Ahmad and K.B.S. Rasheed, (eds), 1994. Resources, Environment and Development in Bangladesh with particular reference to the Ganges, Brahmaputra and Meghna Basins. Academic Publishers, Dhaka, Bangladesh.
5. Ahmad, Q.K., 2012. “Bangladesh: Sustainable Development with Special Focus on Climate Change - Future Directions” Keynote presentation at the seminar on “Sustainable Development with a Focus on Climate Change: Future Directions”, organized by Planning Commission, Ministry of Planning, Government of Bangladesh, Dhaka, 11 October 2012.
6. Ahmed, A.U. and Alam, M., 1998. Development of Climate Change Scenarios with General Circulation Models, in *Vulnerability and Adaptation to Climate Change for Bangladesh*,
7. Ahmed, A.U., 2005. ‘Adaptation Options for Managing Water Related Extreme Events Under Climate Change Regime: Bangladesh Perspectives’, in M.M.Q. Mirza and Q.K. Ahmad (eds.), *Climate Change and Water Resources in South Asia*, Balkema Press, Leiden, pp. 255-278.
8. Ahmed, A.U., 2008. *Assessment of Vulnerability to Climate Change and Adaptation Options for the Coastal People of Bangladesh*, Practical Action, Bangladesh, Dhaka, 40 p.
9. Bangladesh Forest Department (Ministry of Environment and Forest); <http://www.bforest.gov.bd/>
10. BBS. Bangladesh Bureau of Statistics. Statistics and Informatics Division (SID). Ministry of Planning. Government of People’s Republic of Bangladesh, 2011.
11. BBS. Bangladesh Bureau of Statistics. Statistics and Informatics Division (SID). Ministry of Planning. Government of People’s Republic of Bangladesh, 2015.
12. CCC. Children, Climate Change and Disasters: An Annotated Bibliography, Children in a Changing Climate Research Brighton: IDS, 2009.
13. CDMP. Inventory of Community Risk Reduction Programme, CDMP, Dhaka, Bangladesh, November, 2006.
14. Climate Change Cell. Climate Change, Gender and Vulnerable Groups in Bangladesh. Climate Change Cell, DoE, MoEF; Component 4b, CDMP, MoFDM. Month 2009, Dhaka, pp 104, 2009.
15. Concern Universal. Community Perspectives on Water and Sanitation towards ‘Disaster Risk Reduction’ (DRR). Study Conducted by Eminence. 7/3, Block -A Lalmatia, Dhaka



- 1207, Bangladesh. Retrieved on June, 2015 and available at [http://www.preventionweb.net/files/11142\\_CommunityPerspectivesonWaterandSani.pdf](http://www.preventionweb.net/files/11142_CommunityPerspectivesonWaterandSani.pdf).
16. C. Nellemann, R. Verma, and L. Hislop (eds). Women at the frontline of climate change: Gender risks and hopes. A Rapid Response Assessment. United Nations Environment Programme, GRID-Arendal, 2011. ISBN: 978-82-7701-099-1.
  17. Comprehensive Disaster Management Programme (CDMP), Bangladesh – gov; [www.cdmp.org.bd](http://www.cdmp.org.bd).
  18. DAW-UNISDR. "Environmental Management and the Mitigation of Natural Disasters: A Gender Perspective", Report of the Expert Group Meeting, Ankara, Turkey, 6-9 November 2001.
  19. DDMC. District Disaster Management Plan, District: Patuakhali. Plan developed by District Disaster Management Committee, Patuakhali. Coordinated by Muslim Aid. Supported by Comprehensive Disaster Management Program (CDMP II), Ministry of Relief and Disaster Management. p-294, 2014.
  20. Disaster Management Bureau; <http://www.ddm.gov.bd/>.
  21. Department of Disaster Management (DDM), Bangladesh – gov; <http://www.ddm.gov.bd>.
  22. E. K. Noji. "The Nature of Disaster: General Characteristics and Public Health Effects" - "The Use of Epidemiologic Methods in Disasters"-"Earthquakes" in Noji, E.K., (Ed.), The Public Health Consequences of Disasters. Oxford University Press, New York pp: 3-20, 21-36, 135-178, 1997.
  23. L. Chew and N. R. Kavita. Caught in the Storm- The Impact of Natural Disasters on Women. The Global Fund for Women. Retrieved on June, 2015 and available at [www.globalfundforwomen.org](http://www.globalfundforwomen.org).
  24. Maps. Map of Bangladesh, Prime Minister Office Library. Government of the People's Republic of Bangladesh, 2015. Available at <http://lib.pmo.gov.bd/maps>.
  25. MoWCA. Children and Disaster Risk Reduction: Background Paper by Bangladesh. High Level Meeting on International Cooperation for Child Rights (ICCR) in the Asia Pacific Region (Beijing Nov. 2010). Ministry of Women and Children Affairs, Government of the People's Republic of Bangladesh, 2010.
  26. M. Nasreen. Rethinking disaster management: Violence against women during Floods in Bangladesh, in Women's Encounter with Disaster, eds. Dasgupta, S, Ismail Siriner, Partha Sarathi De, pp.232-244, 2010.
  27. M. S. Rahman. Climate Change, Disaster and Gender Vulnerability: A Study on Two Divisions of Bangladesh. American Journal of Human Ecology, 2(2): 72-82, 2013.
  28. M. S. Rahman. Climate Change, Disaster and Gender Vulnerability: A Study on Two Divisions of Bangladesh, American Journal of Human Ecology Vol. 2, No. 2, 2013, 72-82 DOI: 10.11634/216796221302315.
  29. MoEF. Climate Change and Gender in Bangladesh, Information Brief, Ministry of Environment and Forests, Government of the People's Republic of Bangladesh, 2015. Available at <http://cmsdata.iucn.org/downloads/gender.pdf>.
  30. M. R. Islam. Vulnerability and Coping Strategies of Women in Disaster: A Study on Coastal Areas of Bangladesh, The Arts Faculty Journal, July 2010-June 2011, Available at [http://www.bdresearch.org/home/attachments/article/nArt/A2\\_12938-47251-1-PB.pdf](http://www.bdresearch.org/home/attachments/article/nArt/A2_12938-47251-1-PB.pdf).

31. Ministry of Disaster Management and Relief (MoDMR), Bangladesh – gov; [www.dmr.gov.bd/](http://www.dmr.gov.bd/).
32. Ministry of Food and Disaster Management (MOFDM), Bangladesh – gov; [www.mofdm.gov.bd](http://www.mofdm.gov.bd).
33. Ministry of Environment and Forest (MOEF), Bangladesh – gov; [www.moef.gov.bd/](http://www.moef.gov.bd/)
34. NIPORT. Bangladesh Demographic and Health Survey, National Institute of Population Research and Training (NIPORT), Dhaka, Bangladesh, May 2005.
35. N. Kelly. Working with Refugee Women: A Practical Guide. International Consultation on Refugee Women, Geneva, 1989.
36. P. Blaikie, T. Cannon, I. Davis and B. Wisner. At Risk: Natural Hazards, People's Vulnerability and Disasters. London: Routledge, 2003.
37. P. J. Lazarus, S. R. Jimerson, S. E. Brock. Natural Disasters. In Brock SE, Lazarus PJ, Jimerson SR (Eds.), Best Practices in School Crisis Prevention and Intervention. Bethesda, MD. 2002. (Available at [www.nasponline.org](http://www.nasponline.org)). Date accessed: August 12, 2008.
38. S. Huq, Z. Karim, M. Asaduzzaman, and F. Mahtab (eds.), Kluwer Academic Publishers, Dordrecht, 13-20.
39. S. R. Akhter, R. K. Sarkar, M. Dutta, R. Khanom, N. Akter, M. R. Chowdhury, S. Sultan. Issues with families and children in a disaster context: A qualitative perspective from rural Bangladesh. International Journal of Disaster Risk Reduction. Volume 13, September 2015, Pages 313–323, 2015.
40. S. Cairncross. Health aspects of WatSan. In: Kerr C, ed. Community health and sanitation. London, Intermediate Technology Publications, 1990.
41. S.F. Rashid and S. Michaud. Female adolescents and their sexuality: Notions of honor, shame, purity and pollution during the floods Disasters, 24(1): 54-70, 2000.
42. S. K. Bala, G.M.T. Islam and M. A. Nahian. Impact of Climate Induced Disaster on Gender. Climate Change Study Cell of Bangladesh University of Engineering and Technology. 2013. [http://www.buet.ac.bd/iwfm/climate/report/Component\\_7.pdf](http://www.buet.ac.bd/iwfm/climate/report/Component_7.pdf).
43. S. Ahamed, M. M. Rahman, M. A. Faisal. Reducing Cyclone Impacts in the Coastal Areas of Bangladesh- A Case Study of Kalapara Upazila. Journal of Bangladesh Institute of Planners, Vol. 5 (185-197), 2012.
44. S. Hamid. Female-headed Households, In Rethinking Rural Poverty: The Case of Bangladesh, H.Z. Rahman & M. Hussain (Eds). Dhaka. Bangladesh Institute of Development Studies, 1992. pp. 77-190.
45. UNWCDRR. Mobilizing Women's Leadership in Disaster Risk Reduction High level multi-stakeholder partnership dialogue. United Nation's world Conference of DRR, 2015. Available at <http://www.wcdrr.org/uploads/Mobilizing-Women%E2%80%99s-Leadership-in-Disaster-Risk-Reduction.pdf>.
46. V. Gokhale. Role of Women in Disaster Management: An Analytical Study with Reference to Indian Society. The 14th World Conference on Earthquake Engineering October 12-17, 2008, Beijing, China.
47. WatSan Information Booklet. NGO Forum for Drinking Water Supply and Sanitation, Dhaka Bangladesh, 2006.

48. WHO. Gender and Health in Disasters. Department of Gender and Women's Health. World Health Organization, 20, Avenue Appia, Geneva, Switzerland, 2002.
49. WEDO's study. Case Study: Gender Human Security and Climate Change in Bangladesh. WEDO's study, Gender, Climate Change and Human Security, commissioned by the Greek chairmanship (2007-2008) of the Human Security Network, 2008. Available at <http://www.wedo.org/wp-content/uploads/bangladesh-case-study.pdf>.
50. WHO. Global Water Supply and Sanitation Assessment Report: WHO, UNICEF, Water Supply and Sanitation Collaborative Council, 2000.
51. Women in Disaster; Bangladesh 2014; Bangladesh Disaster Report; Foundation for Disaster Forum.

# Appendices

## Questionnaire

Name:

Sex:

Age:

Education:

Occupation:

Religion:

Marital Status:

Income:

1. According to your opinion what is the main disaster in your union?
2. What are the problems have to face women in pre disaster, disaster and post disaster period?
3. Do you think disaster has made several changes in last ten years? If answer is YES, then what is/are the kind of that change(s)?
4. According to your opinion what is the main disaster in your union?
5. How do you receive the forecast of disaster? Do you satisfied with the recent condition of warning system? If answer is 'NO', then explain why you are not satisfied. In order to improve the present condition what is your suggestion?
6. What is general role of women in disaster time?
7. What is the major problem for women of a shelter home in your opinion?
8. Do you involve with volunteer activities? If not then do you want to involve and taking relevant training for this reason? Explain why the answer is YES or NO.
9. What is the key trouble begins after the disaster in your view?
10. Do you think disaster has made several changes in last ten years?  
Ans YES or NO. If yes then what kind of change that is?
11. Are they beneficiaries through social safety net programmes like Test Relief, Food for Work, and Vulnerable Group Feeding? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.
12. Are there any activities to ensure employment for the ultra-poor? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.

13. Are women taken to the safe shelters on a priority basis at the beginning of any serious disaster and are they given food and medicines? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.
14. Do women receive any emergency food aid and other humanitarian assistance from government? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.
15. Is she involved with any disaster awareness activities and livelihood training to enhance the capability of women to face natural disasters? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.
16. Is there any effective transport system plays a supportive role in rescuing women during disasters? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.
17. Are you a beneficiary of “Employment Generation for Ultra-poor Program”? did you or someone else get job under this programme. If yes then is it enough or need more improvement of this programme.
18. How many women in your area got job under “Employment Generation for Ultra-poor Program”?
19. Are flood and Cyclone Centers children and women friendly? If yes then how, If no then why and what is the real picture and what is the suggestion to improve these programmes.
20. Did you find government person to take you flood and Cyclone Centers when there are disaster warnings?
21. Is there any improvement than last two in communication and transportation systems?
22. Did they ever receive any voluntary training under government projects?
23. Do you think disaster has made several changes in last ten years? If answer is YES, then what is/are the kind of that change(s)?