



Handbook

Women Leadership in Disaster Risk Management



Oxfam, an international non-government organization, has been working in Bangladesh since the War of Independence in 1971. Since then Oxfam has responded to all major emergencies in the country. Oxfam is committed to reducing the suffering of poor and vulnerable communities through a high-impact, integrated humanitarian and development programme utilizing world class research, policy, program and advocacy work.

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Women Leadership
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Message

Because of its geographic features, location, and the challenges it faces, Bangladesh remains an extremely disaster-prone country. Regular disasters severely affect the people; especially women. Because of women's status and position in the society and discrimination against them, they are significantly more vulnerable than men. However, it must also be noted that women have capabilities which help the whole family to cope better during disaster. Based on their practical experiences, women undertake preparedness actions that would otherwise not be taken. In a disaster situation women, in addition to their usual day to day routine activities, take a leading role in caring for injured persons and elderly people, they provide emotional support to family members and collect relief goods, food and firewood. Traditionally, women rarely receive any recognition for such contributions, though in recent years recognition of women's role in disaster risk management has begun to feature in many communities.

Oxfam is an international non-government organization with a special interest in both gender equality and disaster preparedness has supported an initiative for more effective involvement of women who are more than half of the total population in Bangladesh, in disaster risk management. Through this more effective involvement of women we expect to see a significant impact and improvement in management of disaster risks at household level as well as community level.

To support more extensive women's leadership in disaster risk management, Oxfam has supported the development of this handbook titled, "Women Leadership in Disaster Risk Management". This will be rolled out through NGOs among pre-primary and primary school teachers in recognition of their significant role in local disaster management committees to ensure impact both on committees as well as among the children and parents they educate.



Gareth Price-Jones

Country Director, Oxfam-GB, Bangladesh

Acknowledgment

We wish to extend our gratitude to Oxfam-GB, Bangladesh for involving NIRAPAD to develop the handbook on women leadership in disaster risk management which is new and very important for disaster field. We would like to thank Mr. Md. Kaiser Rejve and Ms. Jesmin B. Hossain for their spontaneous cooperation with information and suggestions. We would like to extend our gratitude to Mr. Zahid Hussain for his guidance and continuous supports. We would like to thank our consultants Mr. Kazi Maruful Islam, Ms. Tahmina Rahman, and Mr. Narayan Kumar Bhowmick for their continuous effort to develop this handbook. We would also like to thank our advisory panel members Ms. Hamida Banu Begum, Senior Specialist, NCTB; Mr. Md. Abu Sadeque PEng, Director (Training & Planning), DMB; Ms. Salma Akhter, Director, IER, DU; Ms. Nashida Ahmed, Senior Curriculum Specialist, IED, Brac University; Mr. GF Hamim, Program Coordinator-UNIQUE, DAM; Mr. Jahangir Alam, Coordinator, Disaster Management Unit, DAM and Ms. Tanima Ferdous, Curriculum Developer, FIVDB, for their valuable suggestions and feedback to improve the handbook. We would like to express our gratitude to Mr. Khurshid Alam for providing information and suggestions to improve the handbook. We would also like to express our gratitude to Mr. Atikuzzaman for his support to organize field visit at Khulna. We would like to thank FIVDB to organize field visit at Sylhet. NIRAPAD would like to recognize the contribution of the module/handbook/research which assists us to develop the handbook. We would also like to extend our gratitude to the trainers of DAM and FIVDB as well as their teachers who finally utilize the handbook.



Kazi Shahidur Rahman
Coordinator, Nirapad



Structure of the Handbook

Role of women in disaster risk management have been re-examined in the handbook titled “Women Leadership in Disaster Risk Management” in the practical context of Bangladesh. Generally women are addressed as the most vulnerable group; and in view of that organizations seek to involve women in the disaster risk management initiatives. In most of the cases, these initiatives increase women’s workload, for example they had to work in the disaster management committee or as volunteers in addition to their regular duties. In fact, women contribute much through their regular activities in spite of their subordinate position and discrimination in the society. Especially, when all social and economical activities are impeded during disaster and the affected community become solely dependent to the external assistance, women intuitively take up an imperative role in order to remove distress not only for their own families but for community as well. But their contribution is rarely recognized. In this handbook, an attempt was made to illustrate their achievements along with their risks in a very easy and communicable way. It proposes that if women’s disaster risk reduction techniques are incorporated in the mainstream, then disaster management will be more enriched and effective as a whole.

The handbook has been divided into six chapters which are developed by following the disaster management model of Bangladesh. A brief description of every chapter of the handbook is as follows-

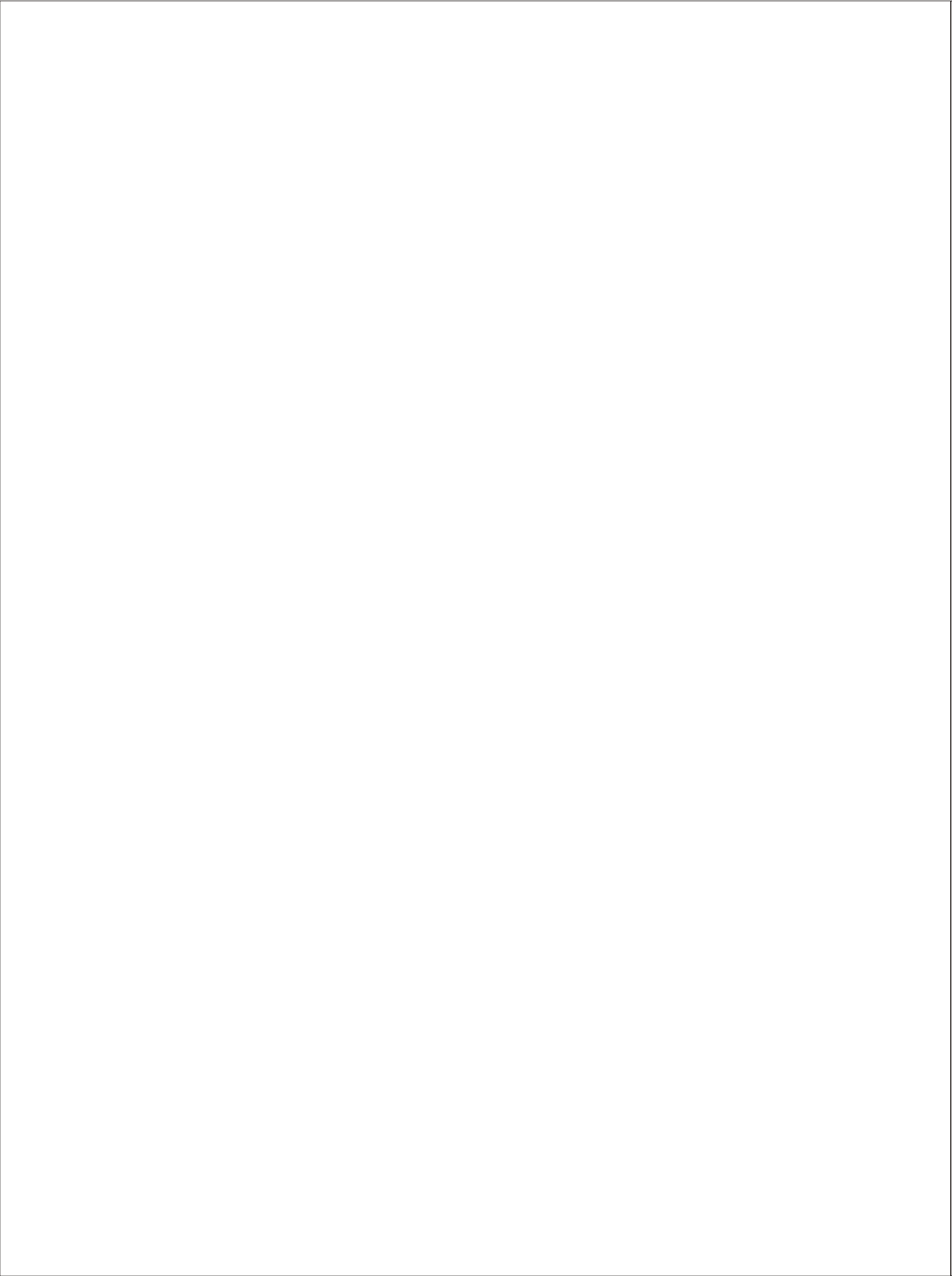
- Chapter One:** First chapter of the handbook discuss background and disaster management model in Bangladesh.
- Chapter Two:** The second chapter of the handbook define risk environment. It includes concept of disaster, hazard analysis, vulnerability analysis and risk consideration. All the issues in chapter two were explained from women’s point of view keeping in mind disaster management model in Bangladesh.
- Chapter Three:** The chapter three discusses management of risk environment. It includes prevention, mitigation, adaptation and preparedness. It also discusses women’s advantage and disadvantages while families, society and institution work in disaster risk management.
- Chapter Four:** The fourth chapter discusses the emergency response. It includes early warning, evacuation, search, rescue, damage and needs assessment, coping response, emergency relief and medical services and emergency recovery. It also discusses who do these activities and how as well as women’s advantages and disadvantages were discussed in this regard.
- Chapter Five:** The fifth chapter discusses women’s role in disaster risk management at the family, society and institutional level.
- Chapter Six:** Process of establishing women’s leadership were discussed in this chapter.

This handbook has some limitations. Since no significant work has been done on this issue earlier, data and information on this issue are not available yet, gender disaggregated data of Sidr, Aila and Flood-2007 were not found. There was no scope to observe deeply of these issues due to time and resource constraint. As a result, some relevant issues are not discussed here. The handbook mainly focuses on poor and affected women of marginal and disaster prone area. Risks of people with disabilities or pregnant women or other especial groups of women are not elaborated here. Disaster risks of urban women or rich women were not considered for discussion, though they always are at various risks and encounter disaster. Moreover, women’s aspect of risk management and their vital role are discussed here according to those hazards that occur frequently in Bangladesh. The handbook did not incorporate any discussion on man-made disaster.

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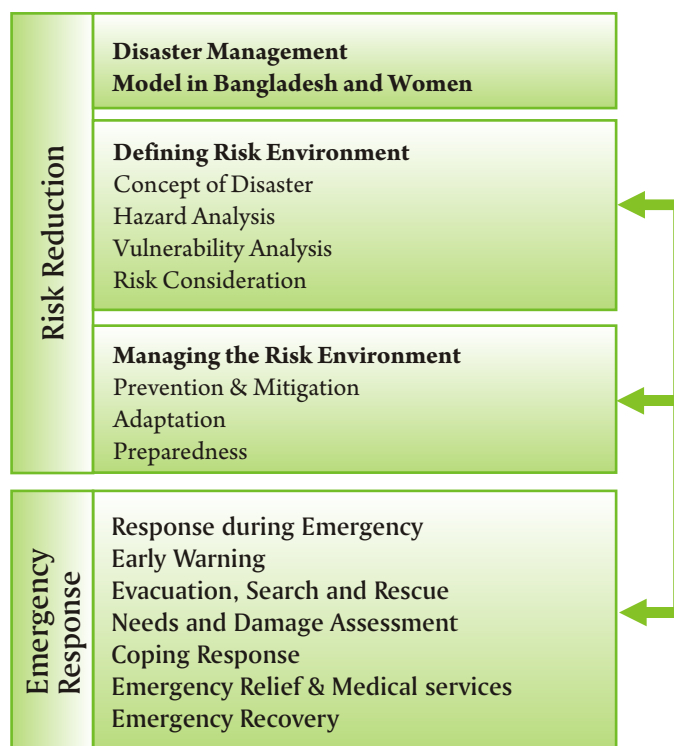
CHAPTER ONE: BACKGROUND

Natural hazards of one type or other occur in Bangladesh nearly every year. These hazards destroy lives and assets; and compared to men, women suffer most. The available data on damages and losses rarely depict the impacts of disasters on women. However, findings from various studies suggest that, in Bangladesh, loss of life due to disaster is proportionately greater for women compared to men. A study on the cyclone in 1991 reveals that the rate of deaths for women between the ages of 20-44 years was 71 per thousand people while it was 15 for men¹. The cyclone in 1970 killed about 25-30 percent women in the affected area². Because of their inferior status and position in the society and systematic discrimination against them, women are more vulnerable to disaster. Disasters affect women first and more severely.

Despite their subordinate position in the society and discrimination against them, women have certain capacities that help not only women but the whole family to cope better during disasters. Based on their practical experiences, women undertake preparedness measures. For example making portable stove, storing dry food such as *chira* and *muri*, keeping stock of matches, candle, lantern, firewood for cooking, and preserving fodder and poultry feed. During disaster women, in addition to their usual daily routine activities, take a leading role in taking care of injured and elderly people, providing emotional support to the family members and making arrangement for collecting relief materials, food and firewood. Usually, women rarely receive any recognition for such contributions.

Importance of women’s participation in disaster risk management has been recognized. Disaster Management Committees formed by the government agencies and NGOs now include women as their members. However, they consider women as the most vulnerable and affected group. These initiatives are undertaken with the notion that should women’s participation has been ensured in all levels, vulnerabilities of women could be reduced successfully and necessary supports and services could as well be provided properly to the affected women. Women’s leading activities in disaster risk management or their contribution in reducing risks of other people are not documented yet.

Bangladesh has developed a useful model for disaster risk management. This model is based on two major elements. Firstly, risk reduction which focuses on defining risk environment and based on it, managing risk environment. It



¹ UNEP, 2005
² Mirza, 1992

considers prevention, mitigation, adaptation and preparedness activities are considered as risk environment management activities. Second element of the model is emergency response which includes early warning and precaution, evacuation, search and rescue, needs and damage assessment and coping response. The core concept of this model is to reduce disaster risks over lives, resources and environment; to construct infrastructures strategically; to include risk reduction strategy in all development works along with development of risk avoidance culture in the society. However, this model also considers women as the most vulnerable group. Women’s respective capacities or their role in disaster risk management has rarely been included in this model.



A considerable number of studies and researches had already been conducted on disaster management and vulnerabilities of women during disasters and produced numerous resourceful products e.g. training module, manual, handbooks on disaster risk management. However, no significant work had been done to understand or promote women leadership in disaster risk management. So, in order to make women’s role in disaster risk management more visible, acknowledged and there by effective, Oxfam-GB has undertaken the initiative to develop a handbook titled, “Women Leadership in Disaster Risk Management”. It will be rolled out through pre-primary and primary school teachers. It is anticipated that through this initiative for promoting risk avoidance culture will get new dimension.

CHAPTER TWO: DETERMINING RISK ENVIRONMENT

2.1. Risk Environment and Women

Unique geographic feature and location make Bangladesh extremely disaster-prone. Himalaya lies to the north and Bay of Bengal to the south. Due to the monsoon, heavy rains occur during summer. Average highest and lowest temperatures that the country experiences during a year are 35 degree and 11 degree Celsius, respectively. Three large river systems i.e. Ganges, Brahmaputra and Meghna, run through the country. They drain off the snowmelt from the Himalaya and rain water from a very vast catchment area to the Bay of Bengal. As

Disaster is everyday happening due to geographical location of Bangladesh

Disaster causes damages and loss to life, properties and environment

Women's work load and responsibilities increase

Women's risk increases during disaster

Women's special need is not considered during relief and rehabilitation activities

a result, nearly every year the country experiences natural hazards such as flood, drought, cyclone, storm surge, cold wave and riverbank erosion. At present, arsenic contamination in ground water, salinity increase in south-western part, land slide in the south-east hilly areas are happening. Bangladesh is located at earthquake-prone areas where severe earthquake may strike any time. Besides, fire incidence and building collapse occurs especially in urban areas.

These hazards destroy life, damage properties and degrade environment. People die or become injured. Infrastructure, e.g. industries, houses, buildings, roads, bridges and culverts collapse. Standing crops perish. Household assets are lost. Natural environment degrades. Low laying areas become waterlogged. Due to sand deposition, crop-land becomes unsuitable for cultivation. Soil and ground water in many areas, especially, in the coastal region, become excessively saline. Besides, levels of ground water fall. These severely affect the livelihoods of people and their social activities. They disrupt the communication system, and the activity of school, college, medical centre and other service delivery organizations. They stop the industries from functioning and hamper markets, trades and commerce. It reduces the income opportunity of people significantly.

Women's status and position is inferior in the social structure of Bangladesh. Daily household chore, child rearing and services to rest of the members in the household are perceived as the main role of women. There is no system to measure women's contributions through household activities in economic terms. Women also contribute substantially to household economy which is rarely recognized in the society and they never find any room in the estimate of national income. Women's right to ownership of properties is very limited. Women's access to service and business is restricted by the traditional practices. Although women participate in the labor market, but their position remains marginalized. Majority of the working women is poor; they work as day laborers for harvest and post-harvest activities. In rural areas women participate in earth work but their wage rates are lower compared to their man counterpart. In cities, large numbers of poor women work in informal sector, for example domestic worker at a very low wage. Women employed in rural areas hardly get any income in cash. Many young women work in garment industries; however, their wage rates are very low.

Women's responsibility and workload increase manifold during disaster. Income of the affected households gets reduced; they do not have food or arrangements for cooking food. They cannot live in their houses. They go a long distance to fetch potable water. In addition to the responsibilities outside the household they are to look after family members, especially, ensuring cooked meals and drinking water every day for everyone remains on women. The situation even gets more difficult for the poor women-headed households. Women in these households have to earn as the heads of the households, and the same time they also have to look after family members at the same time. It is noteworthy that these women have to compete with men for incomes in a situation when employment opportunities have been reduced due to disaster.

Number of women is the highest among those who are died in disaster

Women lost household belongings during disaster

Women fall in problems of food, firewood and potable water due to environmental problems

Women are more deprived if service delivery is obstructed

Ultimately women in the family had to bear the burnt of all disaster related problems

Aim of assistance during disaster is not to meet women's demand rather to compensate economically

Cyclones destroy houses and flood inundates dwellings; it forces people to leave their houses. In such situations, women's risk increases. Provisions for sanitation and maintain personal hygiene is often inadequate in temporary shelters. Besides, social protection mechanism becomes weaker. As a result, women become increasingly exposed to gender based violence and sexual harassment.

Disaster affected people suffer from hunger, thirst and diseases. They become shelter-less and live in insecurity. They become physically, mentally and socially distressed. They need external assistance to recover. Relief activities are usually sector specific, e.g. housing, food, health, safe water and sanitation, agriculture or infrastructure. Generally, these assistance programs rarely cater for women's needs.

2.2. Concept of Disaster

In the context of Bangladesh, disaster is perceived as destruction of life, property and environment resulting from a cyclone or flood, disrupted livelihoods and sufferings of the people. Without external assistances affected people are unable to return to normalcy. Two factors dominate the disaster landscape. Firstly, severity and devastating impact of natural hazard (cyclone or flood), secondly, the limits of the coping capacity of the affected people. A third factor implicit in the scenario is that, disasters occur in the marginalized and remote areas.

2.2.1. Loss and Damages in Disaster

Natural hazards destroy life, asset and environment. Cyclones in 1970 and 1991 killed about 470,000 and 138,000 people, respectively. According to the government estimates, cyclone Sidr killed about 3,363 people; and 1,001 people were missing. Cyclone Sidr, many fishermen were killed or were missing while they were in the sea. However, number of women and

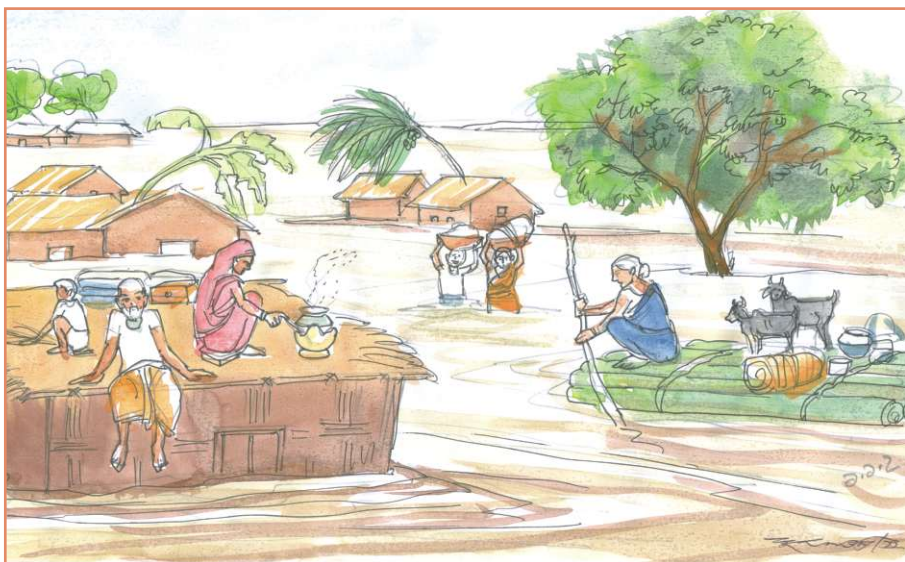


children were the largest among dead. About 3,705 km roads, 88 km embankment, 360 bridges/culverts and 563 educational institutions were fully damaged during the flood in 2007. About 1,741 km roads, 1,875 km embankment, 1,687 bridge/culverts and 4,231 educational institutions were fully damaged in the cyclone Sidr. Families affected by Sidr and flood in 2007, had lost crops of about 890,898 hectre and 743,322 hectre of land, respectively; and about 62,956 and 5,63,877 houses, respectively. Women from these affected households had lost all their household assets; and they did not have any food to eat.

Cyclone Sidr caused damage to Keora, Sundari and Gol plants in 1,900 sq. km forest area of Sundarban. It also endangered bio-diversity of the forest. So, women from families depended on wood, honey, golpata, fish, and crab harvest suffered from food and firewood shortage. Cyclone Aila permanently inundated large areas of some Upazilas under south Khulna district with saline water; ground water in these areas became excessively salty. Women living there now have to travel long distance, often they have to cross the rivers, to collect drinking water.

2.2.2. Disruption of Service Delivery

Destruction caused by a disaster leads to disruption of service delivery and market system. It exposes the affected people, women, in particular, to deprivation and distress. Communication network in 9 Sidr affected districts were disrupted in such a way that transporting relief goods to those areas became very difficult. Markets in some localities ceased to function. Prices of essential goods sharp rise where markets were somehow operating. About 8,000 schools were closed. Local medical centre became unable to provide medical service to the affected people. Estimated 1,444,674 people became shelter-less.



2.2.3. Distress of Disaster Affected People

Disaster affected families suffer due to the lack of food, drinking water, sanitation facilities and medical care. Women of these households suffer the most. Burden of the households resulting from the loss of standing crops and source of income during Sidr eventually fell on women of the affected households. Those families did not have food, proper shelter or utensil for cooking, despite that women had to prepare meals for their families every day. Moreover, they had to take part in cleaning and repairing of their houses as well the roads in their communities. Women had to take responsibility as household heads where main breadwinner of families died or were missing or wounded seriously in disaster. As they did not have any prior experience in this regard, they had to face great difficulty in performing their additional duties. These women had to do usual household chore – e.g. collecting water, preparing daily meals, taking care of children as well, to earn money.

Maintaining their personal hygiene was difficult for the women who moved into the temporary shelters during Sidr, Aila or the flood in 2007. Also, because they did not have safe and secured shelters, their exposure to sexual abuse and harassment increased significantly. Furthermore, many women became emotionally distressed because of the uncertainties in their life or loss of their dear and near ones.

2.2.4. Needs of Disaster Affected People

Disaster affected community cannot return to normal functioning without external assistance. A study estimated that among the Sidr affected people some 4-5 million people would require food assistance and some 0.2 million would need shelter support. Based on that study findings, Ministry of Food and Disaster Management proposed short term assistance of Tk 15.9 million and long term assistance of Tk. 72 million. This proposal has prioritized assistance for food, health and nutrition, house and infrastructure construction and agriculture. It included very little to meet women's particular needs, excepting some provisions of post-natal and antenatal care.

2.3. Hazard Analysis

Natural hazards cause damage to life, property and environment and result in disaster. Degree of damages and losses depends on the type and intensity of the hazard. Natural hazards that frequently occur in Bangladesh are flood, cyclone and storm surge, riverbank erosion, drought, cold wave and arsenic contamination, earthquake, fire, building collapse, landslide.

2.3.1. Flood

Flood occurs when excessive increase of river water overflow the banks and inundates the plain land. Flood is a regular phenomenon in Bangladesh. Almost every year flood affects some parts of the country; and depending on the severity, about 20-68 percent of the land areas get inundated. Assets, crops and infrastructure can be damaged by this flood. Generally, four types of flooding occur in Bangladesh – i.e. flash flood, rain flood, monsoon flood and coastal flood.

Flash Flood: Height of river water increase rapidly when there is excessive rain in the upstream, crop fields and human settlements are inundated by overflowing river water. As a result, crops may be lost; cattle and poultry birds could be washed away; dams, roads and culverts may be damaged; and houses and household items could be harmed. Usually flash flood is happened in the month of April-May in North-Eastern part of Bangladesh.

Flood due to Excessive Rain: An area could be inundated if it rains excessively and the drainage system is poor. As a result, crop fields could be lost. Infrastructure like dams, roads, culverts and houses and household belongings could be damaged and lower areas could be submerged. This type of flood occurred in 2000 in Jessore-Khulna area.

Monsoon Flood: Heights of river water increases during rainy season. and locality at both the sides of river could be submerged by the overflow of river water. As a result, crops may be lost; cattle and poultry birds could be washed away; dams, roads and culverts may be damaged; and houses and household items could be harmed. This type of flood takes place in Padma, Brahmaputra and Meghna basin in the month of June-September.

Flood due to High Tide: Height of sea water increase during high tide and plain land is submerged by blocking water flowing to the sea. This flood is happened in the coastal areas. As a result, crop of the fields could be damaged and saline water could enter into water bodies.

Large scale flood could severely affect life, properties and environment. It could disrupt the services, market system and day to day livelihood activities. Women of the flood affected households lose their household assets, vegetable gardens and poultry birds; and they are forced to move out of their houses. As a result, they could not do their routine activities and maintain personal hygiene, and they become expose different risks.

In recent history, severe flood occurred in 1998, 1999, 2000, 2004 and 2007. More than 40 percent land areas of the country were submerged in the flood of 2007. Around 2,264,933 families were affected, and 62,956 and 881,922 houses were damaged fully and partially respectively in the flood.

2.3.2. Cyclone and Storm Surge

Depression in the Bay of Bengal turns into cyclone and hit the coastal areas of Bangladesh. Usually, cyclones occur during April-May and October-November. Cyclone always associates storm surge. This hazard is very destructive, and causes huge loss of life, property and environment. Due to cyclone women may die or get injured or may suffer deaths of their children, keens and family members. Cyclone affected women may become totally shelter-less and asset-less, and may suffer from the lack of food, housing, health care, sanitation facilities and social protection. Bangladesh, in recent years, experienced some of the most destructive cyclones in 1991, 1997, 2007 and 2009. Cyclone Sidr in 2007 damaged 563,877 houses partially and 955,063 houses fully.

2.3.3. Riverbank Erosion

Riverbank erosion is a continuous process. The Padma, the Meghna and the Brahmaputra are very erosion-prone river. Riverbank erosion washes away crop land and the locality along the river banks. Affected people lose their land and house, and are forced to migrate. Women become asset-less and disconnected from social network. During the period between 1974 and 2004 around 29,390 and 87,790 hectare areas of land have been lost in the Padma and Brahmaputra rivers, respectively. Riverbank erosion makes on an average, one million people homeless, every year.

2.3.4. Drought

Prolonged dry weather and rain failure cause drought. Drought affected areas become warmer; water bodies dry up; river flow become low; ground water table falls; soil moisture level decreases. Therefore, standing crops in the fields die. Rearing cattle and poultry birds become difficult. Drought is a serious hazard. It leads to food crisis and financial setback for the communities' dependent on agriculture. Women in drought affected areas face difficulties to maintain the nutrition of their family members or to meet the daily needs for water. Besides, male members of family to other areas in searching of job. Women from these households become exposed to various risks including sexual abuse.

Usually drought occurs in the northern part of Bangladesh. About 47 percent land area is drought prone and 53 percent of the population is exposed to it. Droughts occurred 24 times during the period between 1949 and 1991. Among these the droughts of 1951, 1957, 1958, 1961, 1972, 1975, 1979, 1981, 1984 and 1989 were most severe. Following that, the drought in 1994-95 persisted for a long period, and caused massive crop failure.

2.3.5. Cold Wave

Drop in the atmospheric temperature below 10 degree Celsius in winter causes cold wave. It continues for 3-5 or more days. Sometimes, temperature falls below 4 degree Celsius. During that time humidity level in the air increases and dense fog prevents sunlight to reach the earth surface. Such weather disrupts all societal functioning. Poor people could not pursue their livelihood activities and become unable to earn any income. They face food crisis. Besides, they do not have warm clothes; they suffer from cold. Many people suffer from pneumonia and respiratory problem. Aged people and children may die of pneumonia or exposure to excessive cold.

Women in poor households suffer most during the cold waves. Despite the cold weather, they have to wake up very early in the morning, collect water, cook food, wash utensils. Pregnant mothers in confinement and newborn babies become exposed to risk.

Every year Bangladesh gets affected by cold wave. Cold wave in 2006 had affected about 100,000 people and killed about 130 people. About 369, 55 and 135 people died due to the cold wave in 2007, 2008 and 2009, respectively.

2.3.6. Arsenic Contamination

In recent time, arsenic contamination has emerged as a serious hazard. Excessive extraction of ground water allowed air to enter into the ground, and breaks down accumulated arsenopyrite in the ground and to mix that with the ground water. As a result, in many parts of the country, tube-well water contains more than tolerable level of arsenic. A large number of people became affected by arsenicosis due to drinking this arsenic contaminated water. Symptoms of this disease are manifested gradually. At the beginning, skin color of the affected people become blackish; afterwards palm of hand and leg get rigid and patch or hard papules develops in the body. In course of time, it forms ulcer on palm and artery; cancer develops on skin, and finally body start decomposing. Arsenic affected women suffer from physical pains. At the same time they lose their status in the family as well as in the society. They become socially excluded and suffers from various discriminations.

Varied levels of arsenic contamination have been found in the ground water in 61 of the total 64 districts. In particular, ground water in the south-west and south-east regions is highly arsenic contaminated. About 125.5 million people in Bangladesh drink water in which arsenic contamination is more than WHO recommended accepted level.

2.3.7. Earthquake

North-eastern part of Bangladesh is more earthquake-prone due to geographical features. Around seven major earthquakes hit Bangladesh during the last one hundred and fifty years. Of late, major earthquakes hit Sylhet and Bandarban in 1997, Maheshkhali in 1999 and Barokol in 2003. It is apprehended that severe earthquake may strike in near future. During earthquake infrastructure is destroyed massively, and many lives are lost. Usually urban and commercial areas are more devastated which disrupt national economy. Highest number of women and children are killed in earthquake. Women loose house and household belongings.

2.3.8. Fire

Incidence of frequent fire in readymade garments factories, slums and densely populated urban areas is increasing alarmingly. Some days back, fire incidence in a multi-storied building caused huge loss. Around 14,454 fire incidence occurred in the country in 2010 which killed 193 people and wounded 205 people; and resources of Tk. 5,225 crore were gutted. Highest number of women and children are died in fire incidence too. Women render homeless after losing their houses and household belongings.

2.3.9. Building Collapse

Collapse of high rise buildings especially housing and readymade garments factory in Dhaka city is increasing which cause much casualty. Number of women dead or wounded is the highest in readymade garment factory collapse.

2.3.10. Landslide

Landslide occurs almost every year in the Chittagong region which destroys house and household belongings, kills people suppressing under mud. Women and children are the highest among the dead.

2.3.11. Climate Change

Bangladesh is exposed to the risks arising from global warming and sea level rise. The country has experienced rise in the average temperatures in the month of May and November, respectively, by 1 degree and 0.5 degree during the 14 years from 1985 to 1998. It is feared that the Himalayan glaciers will keep melting at increasing rates and will result in a rise in the volume of water flow in the downstream. At the same time uncertain and erratic

pattern of precipitation will cause more frequent floods and accelerate the rates of riverbank erosion. Also, in the dry season, there will be very little water in the rivers; ground water will fall further; and northern part of the country will be affected by drought leading to the collapse of the current agricultural system. Intensity of cyclone in the southern part of Bangladesh will increase. Salinity in surface and ground water will increase. Livelihood of the agro-based communities will collapse; and large numbers of people living in the coastal areas will have to migrate.

Because of livelihood constraints and migration, women's social and economic challenges will become more acute. Their income and assets will shrink. Their access to medical care and education will diminish. Large number of women will become shelter-less and have to live in other people's homesteads. They will live in precarious houses that could not protect them from cold, rain or harsh weather. Increasing and recurring hazards will devastate their lives.

2.4. Vulnerability Analysis

All communities affected by disaster or all members of an affected community are not equally vulnerable. More vulnerable people succumb easily and they cease to function normally. Less vulnerable people feel the impacts of hazard less. They suffer less damage and, despite the damages and losses, can come back to normal life relatively faster. Vulnerabilities of the individuals, households and the communities are determined by physical environment, geographical location, infrastructure, socio-economic condition, knowledge, awareness and skill.

Factors of Vulnerabilities

Location and Environment– People who live in hazard prone areas are more exposed to hazards and suffer more losses. For example, people in the coastal areas suffer from cyclones; charland are inundated by floods; and families living adjacent to river lose their land and houses. Recurring hazards diminish their assets and make them increasingly more vulnerable to disaster. Besides, the marginalized areas – such as charland and riverbank erosion prone areas are rarely provided with appropriate infrastructural support. Therefore, people living in these areas become more vulnerable to disaster.

Infrastructural– Solid buildings and strongly built houses can survive cyclones; houses built on higher ground rarely get inundated; solid embankments protect people from flood or storm surge. Well built roads help people move to safer places quickly. These reduce vulnerability. Absence of these facilities increases vulnerability of the people.

Socio-economic– The poor and marginalized groups in the communities are forced to live in risk prone areas. Because of their resource constraints they cannot build strong or disaster resistant houses and remain more vulnerable. Also, their weak and uncertain livelihoods – e.g. marginal agriculture, fishing, day labor and plying boats, increase their vulnerabilities. Communities are exposed to greater risks if the traditional practices and the social structures are weak or not oriented towards risk reduction.

Knowledge, Awareness and Skill– People, who are aware about risks knowledgeable on disaster preparedness, try to evade the danger at the onset of the disaster. For example: they move to shelter or safer place when they get the early warning. Knowledgeable people and families make preparations to face the hazards. Thus, they become less vulnerable. Physical strength and life skills such as swimming, climbing trees help people survive during disaster. Young children, elderly people, physically challenged people are more vulnerable as they are physically less strong; and many of them cannot swim or climb trees.

2.4.1. Vulnerabilities of Women

Traditionally women are less able to use physical strengths. They are less able to swim or climb trees. Their clothing hinders their mobility. However, this vulnerability arises from the subordinate position of the women in the society. Traditional beliefs and social discriminations define a role for women force them into this subordinate position. Families or the communities rarely take note of women's views. Women almost have no rights to take decision. Women cannot apply risk reduction related skills or knowledge in real life. In the male dominated society, they live under risks. Moreover, they have almost no opportunity to earn money; they have limited control over and access to their own or family assets. As a result, they cannot invest in order to reduce disaster induced risks. There are various social restrictions on women's movement. A woman's swimming, running and climbing trees are prohibited socially. For this reason, most of the women cannot obtain these skills and become relatively more vulnerable and exposed to the risk during disaster. Specially, women's education, medical care and nutrition related issues never get priority in poor families. As a result, women's thoughts and wisdom are kept confined, thus they cannot become aware. At the same time, they remain weak physically; and it becomes difficult for them to face disaster.

Managing household activities and nurturing children is vested on women. Women cannot go to shelter leaving their houses unprotected or children unattended. They do not get emergency news timely. Even, cyclone related early warnings do not reach them accurately.



2.5. Risk Consideration

Concept of acceptable risk is closely related with risk assessment. This acceptable level of risk is determined considering resources, knowledge and technological constraints. At national level, sector wise economic risks have been considered for different hazards and it has been planned to incorporate the work of risk reduction in the mainstream of development.

Communities are mainly concerned about protecting their productive assets. They often pursue such strategies that transfer risks to the other localities. Food security is the main concern for the households. To minimize the risk, households distribute burdens on different members of the households; also, they accept long term risk to minimize their immediate risks. Women prioritize their reproductive roles, and to minimize risks that adversely affect their reproductive role they accept the other risks. Risks to life – are mainly related to cyclone; these are considered as residual risks, and the proposed interventions for minimizing them include preparedness and awareness raising.

Causality determination, reduction of production & obstruction of service delivery have got priority in risk consideration at national level

The main concern of local people in risk assessment is protecting source of income

Poor families concede future risk to meet immediate food demand

The main issue of women's risk assessment is ensuring reproductive activities during disaster

2.5.1. Risk Consideration at National Level

Risk of life, production and service sector have been considered with respect to all hazards in assessing risk. The hazards that have been taken into consideration are flood, cyclone, storm surge, tornado, riverbank erosion, earthquake, drought, arsenic contamination, salinity, tsunami, fire incidence, infrastructure collapse and land slide. It also took a note that climate change will increase severity and destructiveness of flood, cyclone and storm surge, tornado, riverbank erosion, drought and salinity which has been considered. Disaster risk reduction objectives have been defined under the hierarchy of the overarching goal of the poverty reduction programs. As part of this, risk has been assessed considering national economy and agriculture. Loss in these two sectors and possible reduction of production in fertile land due to climate change have been taken as key factor in finding out priority. Cold wave was not mentioned in the planning document. Possibly this analysis was not necessary as impact of cold wave on national economy is not measurable.

Risk reduction of marginal and underprivileged people was not clearly determined in the national disaster risk reduction planning. Women's special and certain risk issues were also not included in the documents. However, awareness on disaster risk and residual risk management or response activities has been given adequate attention. The planned activities for community level risk assessment is an element of this awareness raising intervention, and it is related to the residual risk management and emergency response activities.

2.5.2. Risk Consideration at Local Level

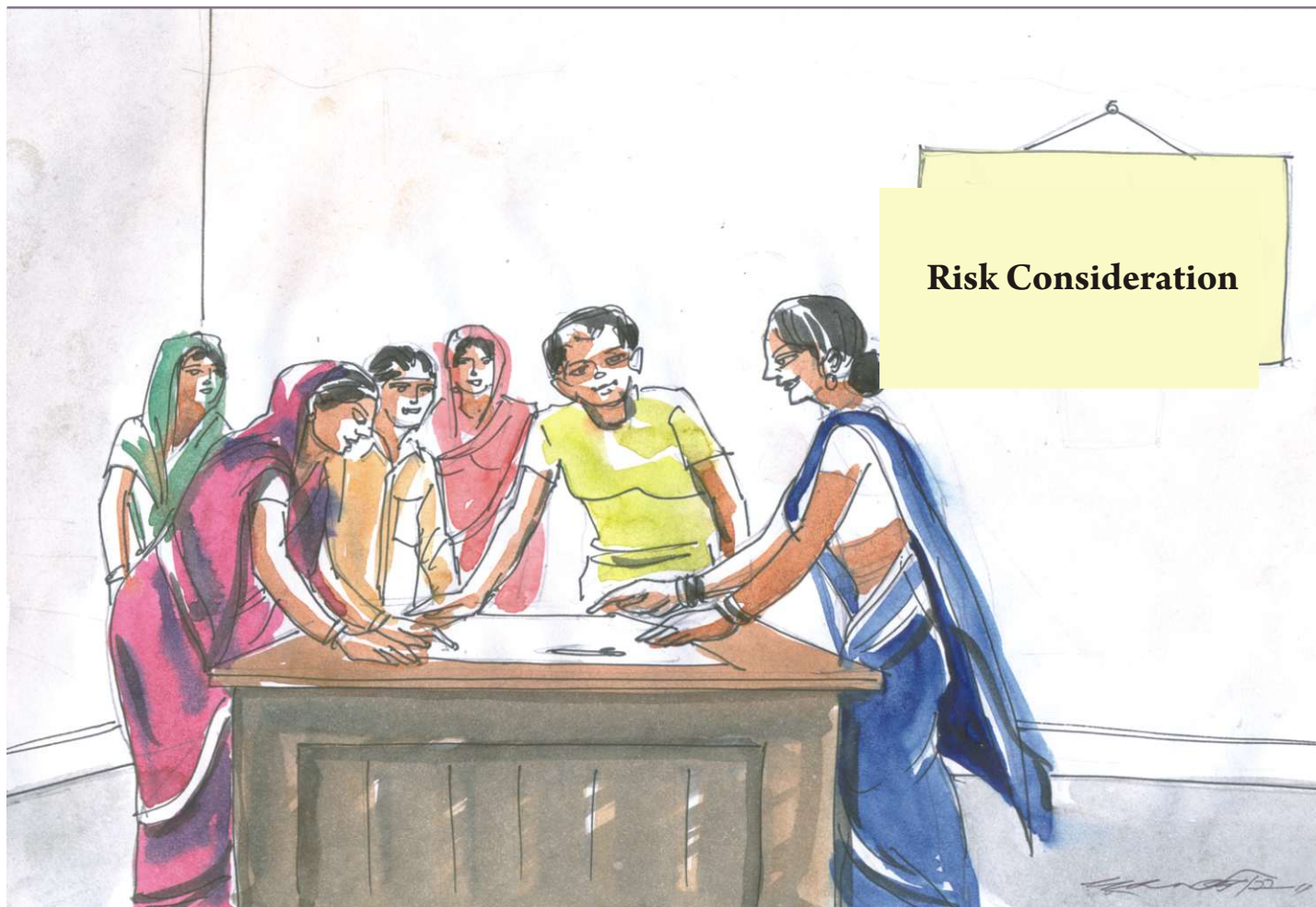
Disaster risk is explained considering the livelihood security of local people in disaster-prone areas. Their concern is how the sources of income would become uncertain due to the impact of hazard. For them, fixed assets and infrastructure is linked with the protection of their source of income. Embankment, roads, kheyaghat and market places are more pronounced the maps that they draw. Also, they often suggest strategies that may cause damage and loss in other areas for protection of their own areas as a technique of risk reduction. It reflects in their proposals for embankment construction, river dredging and channelizing river courses.

2.5.3. Risk Consideration at Family Level

Immediate food requirement is the main issue of risk consideration for the poor households. Their resource is limited; and income is uncertain. They cannot invest much to reduce risk. They accept more risk for future to ensure daily food demand. They may shorten children's education, reduce medical expenses, sell out domestic animals, and even mortgage cultivable land.

2.5.4. Women's Risk Consideration

Women's responsibilities are mainly reproductive role centered. The main issue of risk consideration is household belongings, daily food demand of families and taking care of children. Women consider risk in the sense that how much it could be uncertain to discharge duties in this regard (reproductive role) during and post-disaster period. They accept other risk to reduce these risks. For this reason, they keep savings without informing their husbands; visit shelter in late; cannot come to upland without dry costume after soaking herself fully as it may tarnish her image in such a way that may not reinstate her in reproductive role.



CHAPTER THREE: MANAGEMENT OF RISK ENVIRONMENT

3.1. Risk Management and Women

There is no way to escape natural disaster. However, people of Bangladesh have gained some experiences and techniques to reduce risk while living with hazard. These experiences and techniques are used to save life, resources and environment at institutional, social and family level. These affects life and livelihood of women whose participation is very low in social and intuitional risk reduction activities. However, women participate at family level risk reduction activities.

Degree of damage and loss, and severity of hazard could be reduced by taking different measures which could be done by developing infrastructure like flood protection embankment. Besides, it could also be done by taking different social programs like control of land use, raising awareness and developing risk avoidance practices. Usually, infrastructure is constructed by undertaking different development programs. Awareness raising programs could be conducted through NGOs.

Preparedness programs aims at saving life and properties during disaster. Preparedness activities are done at institutional, social and family level. Broadcasting early warning is done at community and institutional level, to mount rescue, migration and response operations timely and effectively. Family level preparedness includes raising homesteads, repairing houses, making moveable earthen cooker made of mud, preserving firewood and dry food. Women play a vital role in these preparedness activities.

More effective prevention strategies would save not only billions of dollars, but tens of Thousands of lives. Funds currently spent on intervention and relief could be devoted to enhancing equitable and sustainable development instead, which would further reduce the risk of war and disaster.

Kofi Annan, Former Secretary General, UN

3.2. Prevention and Mitigation

Hazards like cyclone, storm surge, flood, drought, river erosion and earthquake are never preventable. It comes naturally that cause huge loss of lives, property and environment. Infrastructure or social programs are undertaken to mitigate or lessen losses. Traditional infrastructural based mitigation activities include

construction of embankment, cross dam, cyclone shelters and *Killa* (mud raised place), undertaking irrigation project or barrage construction. Mitigation activities like infrastructures are constructed by taking different development programs. Sometimes NGOs are involved in these activities. At the same time, mitigation initiatives are taken by increasing knowledge on disaster risk, skill and awareness and afforestation. Usually NGOs play a significant role in this regard.



3.2.1. Institutional Mitigation Activities

A. Construction of Embankments: Embankments are constructed along the two sides of rivers so that water cannot overflow and inundate surrounding areas. It saves standing crops and houses in the catchment area of flood. In the coastal region, embankments encircle large areas and protect that against salinity intrusion and keep lands suitable for agricultural. In haor areas embankments save standing crops from flash flood. However, maintenance of the embankment is expensive; they gradually grow weak and reduce navigability of the rivers. Also, if beached by severe flood, it could cause huge damage. Construction of embankments creates employment opportunities for day laborers, including women laborers. Nevertheless, shrinks open areas from where women might collect wild crops and fishes.

B. Irrigation Project or Barrage: Irrigation project is undertaken in drought-prone areas. It ensures irrigation and often induces farmers, especially well of farmers to go for commercial crops. They produce sugarcane, jute or tobacco instead of rice, wheat or *kalai*. It changes the traditional cropping pattern, and leads to changes in women's life, especially those who are coming from poor families. Women have employment opportunities in food grain production or cereal crop production but they are yet being deprived from employment opportunities in commercial production. Besides, volume of pasture land will reduce to feed livestock and poor women will not be able to collect remnants of crops if land is used for commercial purposes. This may severely hamper food security for poor families during disaster which has a direct impact on the women of those families.

The main objective of irrigation project or barrage is to ensure water for agricultural activities. In drought prone areas, if water is diverted for agricultural purposes, then scarcity of drinking water may occur which will worsen the situation more for the poor women who have to go a long way to fetch water spending valuable working hours and labour. Moreover, risk of sexual harassment will increase as women will have to travel long distances for collecting water.

C. Cyclone Shelter and Killa: Very strong buildings are constructed in coastal areas to take refuge during cyclone and storm surge. Local people take shelter in the shelters when warning is announced. During cyclone, women and children can save their lives by taking shelters in cyclone shelters. But it is very difficult to go cyclone shelters during cyclone. Besides, cyclone shelter centre do not have enough rooms to accommodate much goods.

Killa is a raised earthen place which villagers build together or with the assistance of GO/NGO. During cyclone livestock are kept on *killas*.

D. Flood Shelter: Flood shelter is erected by piling up earth in a central place of villages in flood-prone areas. People take shelter in those places when houses are inundated by flood water. Women feel somewhat comfortable as flood shelter do not go under water. However, they face numerous problems in terms of their privacy, child rearing, sanitation and so on in staying with huge number of people.

E. Village Protection Boundary: With the initiative of community and support of NGOs, strong wall is constructed around the human settlement in haor areas. As a result, settlement areas are saved from erosion; and disaster risk of families are reduced. Women of these villages can easily perform usual activities and can work on gardens.

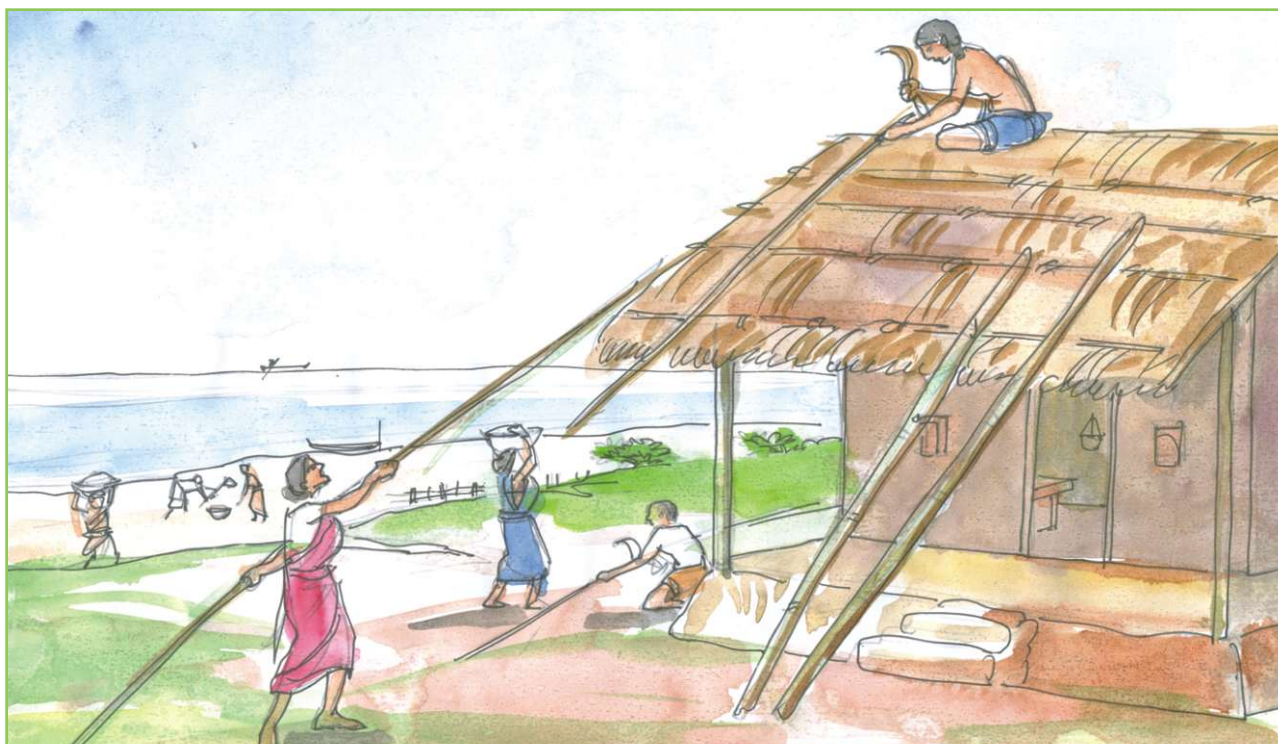
F. Afforestation: Usually afforestation is performed through project at institutional level in coastal areas. Sometimes, voluntary organizations also take part in social afforestation activities in coastal or other areas which help keep balance of environment. Embankment and paraban in coastal areas can reduce severity of cyclone and storm surge on human settlement. Women can easily collect firewood and ensure food security of families based on forest resources.

G. Social program: Aim of this program is to increase risk related knowledge and awareness, and thus to habituate them with risk averting behavior. For this reason, community based risk assessment, public announcement and courtyard meetings are held. Women can learn many things on disaster risk and actions to be taken, and they become aware from these.

H. Policy and Legislation: Many rules and regulations are formulated at Government level to reduce disaster risk i.e. building construction policy and land control regulation which is devised to reduce of disaster risk and reduce losses.

3.2.2. Mitigation at Family and Community Level

Families in flood-prone areas raise their homesteads. Well of families perform this work through engaging labor from out side; but poor or less well off families do this by their own initiative. Women had to give extra labor along with their daily regular activities while raising homesteads by their own endeavor. Sometimes, all family members especially in haor areas work together to raise homesteads of particular area through voluntary services where women had to give extra efforts in addition to their daily routine work.



3.3. Adaptation

Climate change has made disaster severe and dreadful. People had to adopt different techniques to cope with this climate change and new pattern of natural disaster. Local people, with their own experience and knowledge try to adapt with the changing situation. Government undertakes different projects to adapt in the agriculture sector. NGOs help disseminate institutional and indigenous adaptation strategies.

Generally, adaptation considers and prioritizes women and their family. In this regard, women's income through adaptation is considered as means of earning source for the family. It does not consider how to fulfill strategic need of the women.

Example of Adaptation in Agriculture

Crop Diversification: Cultivating new variety of crops in addition to traditional variety. As a result, there is scope of compensation by other variety if one variety is damaged by disaster.

Disaster Tolerant Crop: Bangladesh Rice Research Institute (BRRI) and Department of Agriculture has discovered and taken initiative to extend flood, drought and saline water friendly rice. Farmer families can reduce losses by cultivating these varieties of rice.

Short duration and variety rice: This variety of rice could be harvested before disaster as a result its risk is less.

Floating Garden: Floating garden in inundated areas is indigenous adaptation. Now a days NGOs are expanding it.

Women in poor families get job opportunity during crop harvesting and rice threshing, if cultivation is ensured through this adaptation process.

Example of Adaptation in Water Management

Rain Water Harvesting: Harvesting rain water and using it throughout the year in saline affected area. But it is expensive for families. Besides, water demand cannot be met all the year round by the water that is harvested during rainy season.

Pond Sand Filter: Pond water is purified through this method where potable water is not available due to salinity ingress. However, it becomes ineffective when pond water is dried out during winter season.

Arsenic Filter: This type of filter is used in those areas where level of arsenic contamination in tube well water is excessively high. However, there is suspicion about the effectiveness of these types of filters.

Usually these adaptation techniques are getting circulated and extended by NGOs. Women get special advantage if availability of safe and potable water is increased.

Example of Alternative Livelihood

Shrimp and Crab Culture: Farmers in the south-western part of the country have adopted shrimp culture as an adaptation strategy which is being expanded among the well of farmers. It is a threat to the environment although economically profitable. However, women of hard core families collect shrimp fries and get economic benefit by selling these. Similarly, crab culture has been introduced in saline areas. Women of poor families can earn money by cultivating crabs.

3.4. Disaster Preparedness

Benefit of disaster preparedness is, first of all, to increase ability to resiliency; and control damage and loss of life and properties. As a result, this reduces the influence of disaster on affected people and decrease demand of humanitarian assistance. Secondly, disaster preparedness increases capability to respond timely, effectively and qualitatively when necessary.

3.4.1 Disaster Preparedness at Institutional Level

Government and NGOs involved in disaster management undertake different preparedness programs with a view to provide rapid and timely early warning; carry out search and evacuation activities. Establishing and strengthening early warning system is one among others. For example cyclone preparedness program in the coastal areas. They prepare emergency preparedness plan. Organizations train up their respective workers so that they can effectively deliver their services during disaster. Besides, they collect equipments i.e boat for rescuing, and pile up relief materials i.e tube well and pipes for tube wells. Special issues are included in the training to make search and rescue activity women friendly. But, fact is that, there is very slim possibility to make these efforts women friendly due to time and resource constraints.

3.4.2. Disaster Preparedness at Society Level

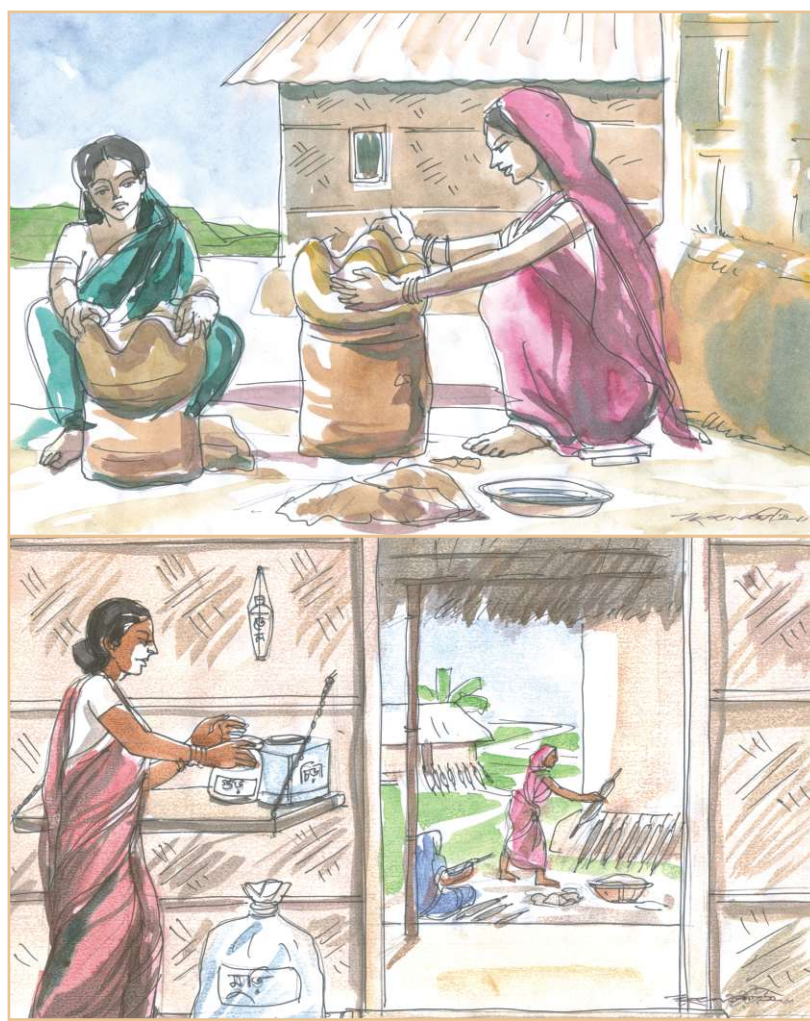
Objectives of preparedness program of Government and NGOs at community level are undertaken to reduce loss of lives and resources and mitigate sufferings of the people during disaster. Formation of local disaster management committee and voluntary groups is one of them. Disaster risk is determined and work plan is prepared with the assistance of these groups to face disaster. Committee members and volunteers are trained and rehearsal is organized. Women also participate in these activities. As a result, in one hand, women's knowledge, skill and awareness are increased and on the other they get opportunity to inform their opinion to others. However, they have taken these responsibilities in addition to their regular duties. Besides, equipments are collected for search, rescue and rapid response.

When breach developed in the local embankment, villagers of Kolom village under Singra Upazila of Natore district took initiative to repair breached embankment, not waiting for government steps. They repaired the breached embankment with sand bags, bamboo chip, bamboo, brick, wood logs and other materials available to them.

Source: Disaster risk reduction module for UDMC members, ActionAid Bangladesh

3.4.3. Disaster Preparedness at Family Level

Women play a vital role in disaster preparedness at family level. Considering possible inconvenience during disaster women make portable stove, pile up firewood, dry food for example: *chira*, *muri* and dry vegetables, save an amount from their income, make *chhika* (jute made reticulate bag hanging from wall or ceiling) with jute so that utensils could be kept hanging above the floor during flood. They also plant banana tree and plant *Dhol Kolmi* around their houses to reduce affect of disaster. In addition, they repair houses, make *matchan* (raised seat) and raft of banana tree with the male members of the family. Women have to put extra labor for all these purposes in addition to regular household work.



CHAPTER FOUR: RESPONSE DURING EMERGENCY

4.1. Response during Disaster and Women

Disaster cause loss of lives; displaces human beings; and destroy their livelihoods. However, women suffer most among the disaster affected people. Traditional subordinate position in the society and limited access to economic resources result in women's high disaster risk which becomes visible during any disaster³.

- Among causality, number of women in any disaster is the highest. It is very difficult to get gender segregated information; however, available information shows that females outnumber males with regard to death in disaster. Number of female casualties was much higher than the males during the cyclone of 1991.
- Females need more health care during disaster than the males but they receive the least compared to the demand. Although the women need special health care services but due to unequal gender relation they hardly have that opportunity. Female health workers are unavailable during disaster. Besides, they do not get on-going health facilities as a result of traditional discrimination.
- Workload of a woman increase manifold when a family is affected by disaster. Women had to perform all the regular works appropriately although the whole family becomes shelter-less and destitute. For example, they had to collect food, cook food and take care of children.
- Economic destituteness of a woman increases manifold during disaster. Women have limited control over resources; their resources are affected during disaster.
- Women get inadequate relief materials. They are not considered main breadwinner of a family. As a result, demand for relief materials is not prepared on the basis of need of women. Moreover, they cannot collect relief materials as there are social restrictions on women's mobility.
- Risk of sexual harassment increases during disaster. As social protection system weakens during disaster, sexual harassment and oppression enhance in manifolds.
- They cannot participate in the relief and rehabilitation activities. Although, women respond first to rescue disaster affected people, they are not involved in planning and management of institutional relief and rehabilitation activities due to traditional discrimination.
- Neither institutional nor indigenous response mechanism is ready to address the risks of women who do not get early warning timely. In most of the cases, they get latish opportunity to get to shelter. Women's need is seldom recognized during disaster. Women's special need and their multidimensional social and familial responsibilities are not considered while cyclone shelters are constructed. Besides, women's private issues and personal hygiene and healthy drainage are also ignored in relief activities.

Risk of women during disaster

- High rate of mortality
- Inadequate health facilities
- Increase workload
- Loss livelihood
- Deprivation from relief materials
- Victim of sufferings
- They cannot participate in institutional response

Rehabilitation programs basically include economic activities. Women's social and household role is not measured in economic yardstick. As women's activities are not considered in rehabilitation programs, they face deprivation.

³Majary Mehta, 2006

4.2. Early Warning and Precaution

Early warning is broadcast in case of possible disaster. People are informed which disaster may inflict in which area by early warning that may lead them to move to a safer place in advance. However, cyclone precedes early warning which is not provided during other hazards. Fall of temperature is forecasted during cold wave. Some data on rise and fall of waters of major rivers in some points during flood is given which does not reveal any information on affect of disaster on the people. Of late many NGOs are trying to discover community based early flood warning system.

4.2.1. Institutional Early Warning

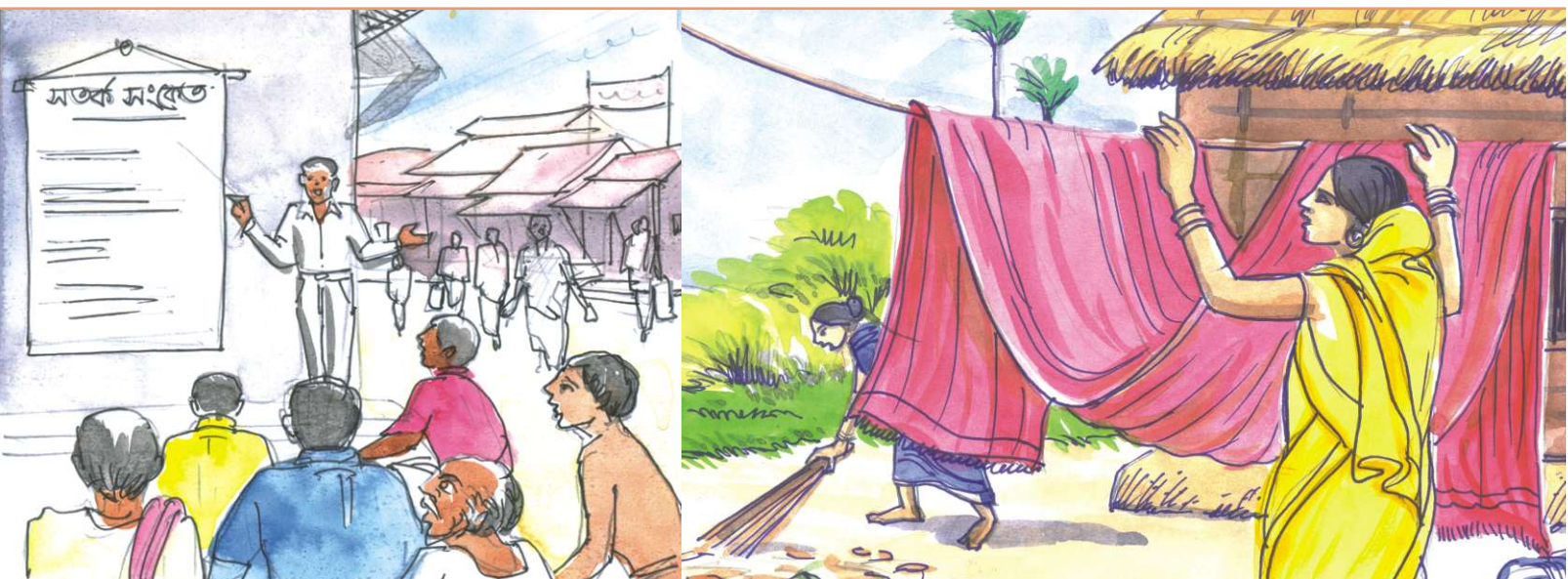
Radio and Television broadcast early warning received from Meteorological Department. CPP⁴ under the Ministry of Food and Disaster Management publicize early warning at community level in cyclone-prone areas with the help of community based voluntary networks. Flood Forecasting and Early Warning Centre under the Ministry of Water Resources send bulletin containing information on height of water in different media and news agencies every day in advance through e-mal, fax and courier. It is sent and circulated more rapidly during emergency. Centre for Environmental and Geographic Information Services under the Ministry of Water Resources publish annual report on erosion of different major rivers in some important places⁵.

Limited Access in Case of Universal Information

Early warning was transmitted from one male to another male before the cyclone of 1991 i.e women did not get information.

Genanet, 2004

Before cyclone, early warning is publicized more widely. Early warning is broadcast again and again in radio and television. In addition, red flags are flown if danger signal is forecasted for sea ports. Generally flags are flown on the rooftop of UNO office, meteorological office, high buildings, Union Parishad buildings and big trees to show danger signals. Besides, government offices working in local areas publicize the warning through loud speaker and blowing siren. In addition, villagers are informed by striking drum and tin. In most cases, women have least access to early warning. Poor have neither radio nor television. Women cannot hear if the house is far from main road or remain busy with household chores or wind blows from opposite direction.



⁴Cyclone Preparedness Program

⁵Md. Nurul Huda, 2010

4.2.2. Early Warning at Society Level

Male members of a village visit local shopping centres and gossip in tea stalls. They get early warning easily. Besides, they have own medium of exchange for news and information. If one gets news, it is circulated among others. It is in vogue among professional groups. When a boatman gets news, he circulates it to others. The introduction of mobile phone has increased this method now-a-days. However, this system of exchanging news and views is not applicable for women. They may receive early warning verbally from neighbors.

4.2.3. Early Warning at Family Level

If any member of a family gets news from radio or television, she/he informs it to others. When he receives news from outside, he notifies it to other family members which sometimes kill time. Again, he goes to shelter without coming to the home. As a result, women of that family fall in risk.

Four Elements of Women Friendly Early Warning

Risk Awareness

- Collecting women's risk related information properly through risk assessment
- See women's hazard and factors relating to hazards
- Observe tendency of factors that influence women
- Examine women's risk related map and availability of information

Observation and Early Warning

- Improving women friendly early warning and women's hazard observation system
- Observing women friendly index
- Watching correct base for providing scientific early warning
- See if early warning is prepared correctly and timely

Dissemination and Communication

- Informing risk related information and early warning to women
- See if early warning is reached to the risky women
- Examine if women can understand risk and early warning
- Study if information on early warning is understandable and useable to the women

Ability to Respond

- Creating women's ability to respond at community and national level
- Updating response plan and see if it is verified
- Check if women's ability and knowledge is useable to respond
- Examine if women are ready to respond as per early warning

4.3. Evacuation, Search and Rescue

All the people who live along the cyclone track have to move to safer place for saving life. Usually, multi-storied high rise buildings, cyclone shelters, schools, government and Non-government office buildings, Union Parishad Offices, buildings of neighbors are used as shelters. Evacuation starts after announcement of early warning, and huge number of people had to move within a short period of time.

4.3.1. Evacuation, Search and Rescue at Institutional Level

Cyclone shelter, *Killa* and flood shelters are available although these are not adequate in number. However, no massive evacuation system in the formal sector has yet developed in Bangladesh. Cyclone Preparedness Program (CPP) volunteers and NGOs help in evacuation in coastal areas. CPP volunteers play a crucial role in search and rescue activities. Bangladesh Navy and Coast Guard carry out search and rescue activities in the Bay of Bengal. Bangladesh Army carry out search and rescue activities if there is any incidence of fire and building tilting in the town areas.

Although there is provision of searching and rescuing women with dignity in disaster management planning but in reality it rarely happens. They face rebuke and harassment while they are rescued and evacuated.

4.3.2. Evacuation, Search and Rescue at Society Level

Sometimes neighbors take part in rescue and evacuation works. In most of the cases it is carried out haphazardly. Preserving dignity of women becomes secondary at that time.

Currently initiative is being taken at local level, with the help of GO-NGO collaboration, to evacuate, search and rescue activities. Formation of local committee, collecting volunteers and providing training to the volunteers is the part of this process. Precedence of women and preserving women's right has appeared forefront.

4.3.3. Evacuation, Search and Rescue at Family Level

Usually families move to safer place with their own initiative. Male members of family take decision and steps to evacuate family members. If male members are absent, it becomes difficult for women to move quickly to a safe place. Firstly, they do not get early warning, secondly, they cannot go to shelters taking household belongings along with her or without preparing those ready for further use. Thirdly, women cannot go outside without presence of husband or permission of husband. In most of the cases, they do not know where the shelter is located at and how to get there. Besides, it becomes difficult and dangerous to move during cyclone. Women cannot go alone; they may encounter many types of risk especially sexual harassment.



People shift to a safe place during flood when they cannot survive in their homestead. They strive to stay at home by raising their *Khat* (a wooden structure on which sleeping bed is placed) or making *machan* even when flood water enters into their houses. When they fail to live in this way they travel nearby to high land areas or shelters. Flood affected people go to safe place by them. Evacuation becomes difficult for women during flood, as they had to carry food, utensils, fuel, stove and poultry birds and arrange living and cooking in new place.

It is almost impossible for women to carry out search and rescue operation, when a family member is missing. Women of many Sidr affected families did not find out their husbands and they had to face numerous problems. Since the issue was not settled, they were deprived of facilities and donations from different sources.

4.3.4. Women's Risk in Shelter

Risk of women increases manifold if they stay at home instead of visiting shelter⁶. Again, they may face numerous problems in the shelter including sexual harassment. Robbery and sexual harassment were reported in some parts of affected areas during the crisis moment of 1991 cyclone too. Adolescent girls and women were abducted and sexually harassed at that time⁷. Besides, demand for special need of women is not considered in the shelters. Around 65 percent shelters do not have separate living room, water and sanitation facilities for men and women which result in many problems for women besides sexual harassment.

4.4. Damage and Need Assessment

Damage and loss is determined soon after the disaster to know the impact on affected people. Scope and severity of disaster is assessed through determining damage and loss i.e. area affected, people wounded or dead and loss and damage of property and infrastructure. In addition, it determines the level of risk of affected people's life and livelihood, health and status, and ascertains types of assistance they needed. On the basis of damage and loss and demand, the relief distribution and afterwards work plan is prepared. However, there is no hard and fast rule to determine damage and loss at the social and family level. Local influential people inform institutional damage and loss while preparing demand. Similarly, affected families notify their damages and losses when and where they get opportunity.

4.4.1. Institutional Damage and Need Assessment

Government agencies conduct survey at union level instantly through SOS form to determine damage and loss and demand. And within an hour of disaster, this information is sent to the control room of Ministry of Relief and Rehabilitation through UNOs and Deputy Commissioners of affected areas. Approximate affected people, number of damaged houses and deaths are also informed through SOS form and types of demand they needed. For example: search and rescue, first aid, potable water, ready food, clothes and emergency shelter. After rapid assessment through SOS form, continuous and detail survey is carried out at union level which is sent to the control room of Ministry of Relief and Rehabilitation through the UNOs and Deputy Commissioners. Detail survey is usually carried out within one month. Afterwards, continuous survey is conducted to know the change which is used to analyze comparative picture of different times and recommendation is put forward for future measures to be taken. Sector wise damage and loss is determined through "D" form i.e. number of affected people and dead; loss of cattle, poultry, standing crops, salt in the farms, shrimp *gher* (an enclosure used for aquaculture especially shrimp); damage of educational and religious institutions, roads, embankments, forest, electricity, telephone and telegraph, industry, aquatic firms, tube wells, ponds and water bodies, boats and fishing trawlers, fishing nets and loom etc. After compiling this form, relief and rehabilitation activities are undertaken. Relief distribution centres are established on the basis of damage and loss and demand. The whole relief distribution plan depends on damage and loss and determination of demand.

Although dry food and cooked food were suitable for relief materials during the flood of 1995, rice, pulse, salt and edible oil were distributed as demand was not determined properly. As a result, many of the affected people who received those relief materials had to pass days without food as there was no opportunity to cook food. Cholera broke out in some shelters and many of the people who took shelter were attacked by cholera as necessity of temporary toilets, *fitkari* for water purification, bleaching powder for cleaning toilets were not contemplated before preparing demand. People who took refuge on the road and embankments had to live under open sky since no demands for polythene were sent.

Source: *Disaster Risk Management Manual, 2006, Oxfam-GB Bangladesh Program*

⁶Shafi, 2008

⁷Kafi, 1992

Different NGOs also find out damage and loss before operating emergency relief works. NGOs identify damage and loss through DER form which considers women's needs and damages in small scale.

4.4.2. Determining Women's Loss and Need

Women contribute much in the family economy which is transmitted in the national economy as a whole. But there is no system to measure contribution of women. As a result, women's contribution is not reflected in the national economy. Women, with their wisdom, skill and labor, keep home economy continued by cultivating vegetables, rearing poultry birds and managing micro savings. Disaster has direct effect on all the assets which is not taken into account while preparing demand. As a result, women's special needs remain unknown and measures are not taken to satisfy those.



4.5. Coping Response

External assistance for the affected people is needed to come back to normal life. But it takes three or four days and in some cases one week or more to reach external assistance to the affected people. During this period, affected people save life and livelihood by themselves. Besides, very often external assistance is too meager to satisfy the needs. People living in the disaster-prone areas are very often affected by disaster; and they gather experiences and learn techniques to survive and cope with post disaster situation.

4.5.1. Role of Women in Coping with Disaster

Disaster affected families lose most of their productive and daily useable assets. Their source of income is stopped. Head of households, who is usually male, remain busy for collecting relief materials and roam around for searching jobs. At that time the responsibility of ensuring nutrition, health, water, cleanliness and providing security is vested on women. In addition, women had to play role in upholding dignity of family which they do with their own knowledge, skill and techniques. They also use the social networks for this purpose. But their techniques are not usually recognized⁸.



⁸Khurshid, 2008

4.5.2. Attempt of Families to Lead Life

Visible techniques of disaster affected people in an attempt to lead life⁹

Austerity measures: Reduce regular food intake to use stored food and resources for a longer period of time. They take less food compared to their need. Eat once instead of twice. Women had to sacrifice more as they take food after feeding all the family members.

Risk Transfer: Taking future risk to meet present needs i.e. selling household belongings, selling labor in advance, taking loan at higher interest.

Rearrangement of Responsibilities: Engaging children in income earning; migrating male members to other places for searching source of income.

Filling Deficit: Accumulating food from open place or forest; taking help from relatives, neighbors and friends; and collecting relief materials. Women had to tolerate more pressure for managing all these things. Their nutrition intake may hamper due to austerity measures. Their household activities become challenging as utensils are sold. They may face sexual harassment while collecting food from open places or forests. Women's risk of sexual harassment increase when male members move to other places for earning income.

4.6. Emergency Relief and Medical Services

Relief activities are humanitarian efforts which include reaching daily essentials and services (food, housing, water and sanitation etc.) to disaster affected people. Usually, Government agencies or NGOs distribute institutional emergency relief which is depended on primary damage and loss, and assessed demand. Well of people of the locality sometimes personally distribute relief materials. However, no guidelines or policy is followed to determine damage and loss as well as selecting beneficiaries.



4.6.1. Targeting and Women

All families affected by disaster should be covered by humanitarian assistance. However, need of all families are not equal and similar. Considering differences in demand and ensuring highest use of available resources targeting technique is applied. Beneficiaries are selected, under this method, considering loss and damage, and ability of the families. Almost all relief activities in Bangladesh are donor dependent. Resources are not adequate compared to the demand. Priority list is prepared based on the need of an affected family and more importantly, the need is defined following own rule and process of donor agencies and/or relief distributing organization. However, in general hardcore poor, female headed household, divorced and abandoned women, widow and physically challenged people are given priority.

4.6.2. Relief Materials and Needs of Women

Followings are the materials that are usually distributed as relief:

Dry food: *Chira*, *muri*, molasses, biscuits and chocolates.

Food Item: Rice, wheat, pulse, edible oil, salt and potatoes.

Water: Pure water, bottled water, water purification tablet, bleaching powder, *fitkiri*, jeriken.

Personal Hygiene: Soap, sanitary napkin.

⁹Zahid, 2008

Dress: Saree, lungi, gamsa, kids dress.

Household Materials: Plate, glass, utensils, spoon, mug, bucket, firebox, candle, kerosene, *harican*, fire wood etc.

Shelter items: Polythene, *tripal*, blanket etc.

In most of the cases, women's special need is not determined categorically. Women's special needs are excluded in the pretext that demands are prepared quickly within a short period of time on emergency basis. However, the humanitarian aid agencies have shown keen interest and they distribute some relief materials for women i.e personal hygiene and household goods.

4.6.3. Women's Advantage and Disadvantage while Distributing Relief Materials

In most of the cases, women's advantage and disadvantage is not considered with proper attention while relief materials are distributed. In most cases huge numbers of people throng to a relief distribution centre, they wait in a long queue for long time. No toilet facilities are available there. Usually, for the relief workers it is very difficult to maintain any discipline in distributing relief amongst hundreds of eagerly waiting mob. Besides, it is difficult for women to receive relief materials by competing with a huge number of males. Sometimes, women face reprehensible incident in the relief distribution centers. However, nowadays many organizations are considering advantage and disadvantage of women and trying to make relief distribution women friendly.

Sometimes, cash is also distributed as relief. Often cash for work is introduced instead of direct cash which is very inconvenient for women as they had to participate cash for work program along with their household activities during disaster period.

4.6.4. Emergency Medical Services

During disaster people can hurt or may be injured besides death. In addition, different diseases i.e. fever, common cold, skin disease, diarrhea, burn and gastrological problems can also spread during disaster. As part of quick response, affected people are given emergency medical services which are provided by mobile medical team, outreach clinics and special clinics. In most of the cases, standard of these services are poor due to limited resources, weak road communication and lack of adequate number of health worker. Besides, in this process, it is difficult to provide attention to women's special demands for example women's reproductive health facilities.

Anxiousness for upcoming baby

Pregnant Begum of Kolubari village under Sapleza union in Mathbaria Upazila kept herself tied with a tree to save her from the wrath of cyclone. Now (at the time of demand assessment) she cannot keep herself standing for a longer period of time due to pain in the abdomen. Her child in the womb does not move. She has no money to go to doctors. Now she is anxious about her imminent child if it will see the light of the universe.

Source: Rapid Gender Assessment of SIDR Response, 2007, Care Bangladesh

4.7. Emergency Recovery

Emergency recovery is an attempt to bring back normalcy to emergency services relating to social and economic activities. It is relatively a long term program through which institutional and people's opportunities and benefits are brought back to normal life. This program undertakes such activities that affected people can lead normal life i.e they can restart their economic activities and get back social and mental security again.

4.7.1. Institutional Recovery and Needs of Women

Rehabilitation activities at the institutional level are performed sector wise. The most important sectors are:¹⁰

¹⁰Sidr Report, 2008

- **Food Security:** Keeping food distribution continued until agriculture and other source of livelihood work normally; continue VGF and VGD program; keeping supply of food adequate and price stable through market management.
- **Water and Sanitation:** Establishing tube well, digging ponds and carrying out mass education.
- **Housing:** Providing financial assistance and housing loan through banks to destitute and poor families.
- **Health and Nutrition:** Repairing hospitals, supplying machines, recruiting nurses for village levels and imparting training to them; and operating mass education program.
- **Rural Infrastructure:** Constructing or repairing roads, culverts, dams and bridges.
- **Water transportation:** Constructing or repairing jetty, pontoons, ferry and vehicles plying on water/marine vehicle.
- **Electricity:** Repairing and re-establishing transmission line, infrastructure and machineries.
- **Telecommunication:** Repairing and re-establishing infrastructure and machineries.
- **Education:** Construction and repairing infrastructure and furniture; and supplying learning materials.
- **Livelihood**
 - Agricultural materials, seed, fertilizer, supplying pesticide in low price, disbursing interest free agricultural loan.
 - Supplying cattle as grant; providing loan for rearing cow, goat and poultry birds.
 - Providing machines and materials as grants (for example: boat, trawler, fishing net etc.) for fishing in rivers and ponds; disbursing loan for aquaculture and shrimp culture.
 - Distribute loan or grant for petty trading and small factory.
- **Forestation:** Social forestation, establishing greenbelt, preserving damaged forest.

A little institutional investment cannot meet the special demand of women. The reason behind this is, traditionally, women's contribution is not measures/recognized in the national economy. Investments in the rehabilitation program normalize and strengthen visible economic sectors which do not include the areas where women engage their labor. Women face discrimination here. It is mentionable here that loan or interest on loan is written off and interest free loan is granted as assistance in the agriculture sector. Micro-credit that women usually receive is never written off.

4.7.2. Recovery at Family Level and Role of Women

Both male and female participate in the rehabilitation activities soon after the cyclone. Damaged houses are repaired by all the family members together. Standing in mud and water, women clean houses and slippery homestead when cyclone is over. They construct and repair houses with the male members of the family.¹¹ Sometimes land, trees and cattle are sold to reconstruct houses. In addition to those, women had to sell their personal resources like ornaments. Besides, in most of the cases, families receive loan through women and make them indebted.

¹¹Nasreen, 2006

CHAPTER FIVE: WOMEN'S ROLE IN DISASTER RISK MANAGEMENT

5.1. Women in Risk Management

Societies exhibit some division of labour among men and women. This division of labour, constructed by society, shapes perception about men and women and creates discrimination against women. Under this socially constructed division of labour, usually paid works are allocated for men and unpaid as well as reproductive (child rearing, caring, cleaning) works are allocated for women which based within home.



Our traditional social norms and culture is establishing and reinforcing the traditional division of labour. Through the socialisation process, girls and boys learned that they have different roles and responsibilities in the society, such as, society make rules that girls are responsible for household work and boys will work at outside. Society imposed rigid division of labour upon children from their tender age and it is usually controlled by elders in the family. These are manifested in the games decided for girls and boys, and in the ways they grow up. As a result they grew up with different attitude which influence them in their life cycle and cannot change this attitude easily.

During the disaster, almost all income source of the family are collapsed. Then men, who are considered as bread-winner lose their income. Though women also lose their assets as well as employment opportunities, but at that time responsibilities shifted to women to care for members of the family, ensure food and water, cleaning, ensuring livelihood of households and recovery work on top of their regular household work. Women can easily shift their role at that time as women have different attitude of living collectively and it shapes her different attitude towards responding emergencies. Other than reproductive role in the family, women involved in productive and social role, for example, seed preservation, rearing poultry, gardening, and involve in social networks. While women perform their day to day household responsibility, they gain knowledge, insight, strength, capacity and experience through the process and use it during disaster to reduce risks. During the disaster, men and women's role changes in their respective areas and women perform both reproductive and productive responsibilities- these are not recognised in our society as well as institutions.

5.2. Division of Labour between Men and Women

Main difference of division of labour between men and women are paid works are allocated for men and unpaid works are for women. The stereotypical idea about division of labour is so strong, that women does not get any reward or recognition for her unending and repetitive household work, such as, caring, rearing, collect wood, cleaning, ensuring clean drinking water etc. Even her productive works, for example, backyard economy (rearing goat, poultry vegetable gardening etc), small business, are not recognised and valued under.

This socially constructed division of labour is an attitudinal crisis only. In reality, many women work as labour, involved in business and services to earn their livelihood and some men are involved in household work, for example, cooking, caring for children etc. But under stereotypical division of labour, society considers it as deviation as well as not normal. Society constructs the idea that who are deviated from their assigned role, are not respectable and society creates obstacle for them.

Since last 2 decades, more women are seen to be involved in productive work and in labour market. Women from poor family are working in brickfield, digging well, reconstruction work, or working at garments factory. More educated women are seen working at government or non-governmental institutions. These changes in labour market hardly bring any fundamental changes in the society constructed idea of division of labour .

5.3. Risk of Women

In our society unpaid works are allocated to women which contributes to construct idea about women that they are not working. This idea makes women to be considered as burden on men and creates women's subordinate position in the society. Therefore, this subordinate position restricts her mobility and work resulting in less access or no control over property and no power to make her decision.

Traditional socialisation process and attitude limits and restricts women's role. As a result, girls and women suffers most and face discrimination in food, health and education. They grew up under rigid rules and restrictions whereas boys or men grew up with more freedom.

Family or society lost sight of thinking about women's vulnerability during disaster. At that time even, dignity of family gets preference over women's life. Women have to uphold family as well as dignity at the cost of their life.



As women grew up and socialise in a discriminatory society, women cannot earn life saving skill, such as, swimming, climbing tree or not confident in heavy work. As a result she become vulnerable during disaster and lose life. As she does not have life saving skill, sometimes, women really become a burden on men and get chance to reinforce stereotypical idea of women as burden. Above all, women are vulnerable due to her biological construction which is natural and cannot be changed. This vulnerability increased more during emergency situation.

5.4. Women's Leadership

Women are seen to be proactive in any emergencies. During disaster, they take responsibilities of all works as well as influence and guide family members in order to remove distress. First they remove and clean the debris to ensure a safe place to stay. Collect all scattered household utensils and usable things, ensure safe pure drinking water, nurse the injured person, and console traumatized member of their family or community.

During emergencies, regular income earning activities stop and men lose their earning. At that time they have to depend on relief. Usually relief distribution start at late and most of the time quantity of relief are not enough. In this situation, men cannot perform their society given responsibility of catering his family and tend to migrate. At that time women fill the vacuum by taking responsibility of looking after the family, ensuring food and medicine, household livelihoods etc. Women can take this responsibility because of her proactive nature.

5.5. Discrimination against Women

Discrimination against women are acute in disaster risk reduction:

- Our traditional socialisation process restricts women from acquiring life saving skill, as a result women are vulnerable to lose their life.
- During disaster men lose their income earning activities and cannot cater for family. Men's inability is acceptable in the society. Men can go out for relief without permission and can leave his family; but women do not get any exemption from her regular responsibility of caregivers, cook, cleaner etc. She has to perform her role even at her traumatised condition.
- To reduce disaster risk family and society create scope to secure economic assets. Mostly women invest her time and effort throughout the year to secure those assets. But no one think about compensating or securing women's asset, such as, cooking utensils, firewood, kitchen garden or chicken.
- There are some deviations found in women's behaviour, such as, save money without husband's permission. These kinds of deviation are acceptable in the society because these are benefiting men as well as society. But some deviation are not acceptable to the society, for example, going to shelter home without husband's permission, because this deviation is not benefiting men directly. These are the cause of women's high death during disaster.
- After the disaster, supports are favouring men's need. They get debt relief from micro finance institutes, agricultural loan from bank etc. But women are not excused from micro credit, she has to repay her loan in any way.
- Women first respond to any disaster, yet they are not consulted in any institutional disaster response or disaster management planning.
- Disaster need assessment system does not consider the loss of women's own asset.
- Women are targeted in any action to fulfil the condition and as beneficiaries. Most of the time women are receiving the relief goods. These relief items are generally for the use of family, this relief pack does not address any particular women's need.
- General attitude is women are convicted for any gender base violence, not the perpetrators. This increase women vulnerability several times higher.

5.6. Recognizing Women's Work

Women, usually, perform reproductive work (for example looking after children and elderly person, cooking etc), Productive work (backyard gardening, seed preservation etc) and many social work (social networking) throughout her life. They perform those works



despite their sufferings and discrimination. Through this process, women acquire her capacity to cope with any awkward situation and can shift her role during disaster by taking new role on top of her regular role. Disaster Risk Management system does not consider women's capacity and indigenous knowledge, rather considers women as vulnerable group and as burden.

Though women's role are recognized, to some extent, at social level, but institutions has very little reflection on women's role. Risk analysis system usually does not considers women's workload, unsecured shelter home, gender base violence etc. Sometimes institution increases workload for women due to their programme. Society and structure accept this workload very easily. But they failed to recognize that Disaster Risk Management system can bring opportunity for women's empowerment. Institutions develop their programmes without assessing women's capacity and skill. Therefore, the entire Disaster Risk Management process tend to lose the opportunity of empowering women and promoting women's role as active agent in bring sustainable changes in



CHAPTER SIX: ESTABLISHING WOMEN'S LEADERSHIP IN DISASTER RISK MANAGEMENT

6.1. Process to Make Effective Leadership

Majority of the population-almost two third are women and children who are under the custody of women. Therefore, considering women's special need is imperative to minimise the disaster risk of total population. Men and women experience different risks during any emergencies. So, planning or programmes will not be effective without knowing women's need and risk intensively. To know men's and women's different need and risk, it is necessary to consult them directly and separately. In Bangladesh, many programmes were implemented before without direct consultation with the beneficiaries which bring hardly any changes in their life.

While facing disaster almost in every year, women gain many indigenous knowledge and skill as well as strategies to cope with disaster. They gain these knowledge and skill by using their own perspective and attitude which is different from men. Reasoning that women's risk reduction strategies are different from mainstream risk reduction strategies; yet women are playing a vital role at different stages of disaster to minimise their own and family's losses by using their own strategies. But women's such kind of achievements are not recognised in our society. Entire mainstream disaster risk reduction programme can be benefitted and be more effective by recognising women's achievements, skills and knowledge.

Mainstream disaster risk reduction system can use women's knowledge, skill and strategies by facilitating women's at leadership position. As a result, disaster risk reduction programme will be effective in one hand and discrimination against women will be reduced on the other. Hence, it will open up the avenue for establishing women's rights through emergency response programme. To utilise these opportunities, it is obligatory to assess women's special need, to assess the damages of their asset and to consider women's risk reduction strategies that they use to cope with disaster. Furthermore, it is very important to bring changes in the policies and practices at institutional level to address mentioned issues.

6.2. Promoting Women's Leadership at Institution Level

To promote women's leadership at institution level, it is vital to ensure women's accessibility in decision making in true sense. Therefore, it is fundamental to avoid pre-decision and control in the process of decision making.

6.2.1. Accessibility

Structure: Women's participation is necessary at all level of disaster risk reduction. However, process of participation can be different at every stage.



- Institutions should involve women at risk analysis at village level. So that women can bring analysis of probable local risk and disaster from their own perspective.
- At present, women can become a member of local risk management committee. As a member they can contribute in disaster risk management planning and participate to challenge the disaster.
- Through consultation, women can get chance to give their opinion and suggestion in prevention and mitigation, especially in structural mitigation. Women also can participate as key informant during emergency relief distribution planning.
- Women can work as volunteer at disaster prone area.
- Institution should promote women at non-traditional role to lead breaking the stereotyping of women's role in the society.
- While designing programme or project, institutions should be thoughtful and analytical about not to increase workload of women by their interventions. To do this, institution can engage men and boys to change their attitude as vital strategy.
- Other than this, women can play role as expert or manager in disaster management system.

Process: Women cannot participate in any process if it is not women friendly or conducive for them. Women play central role at household to maintain the family which is repetitive, regular and take more time as well as have to perform on time. Therefore, women can only participate in committee meeting, community consultation or risk analysis meeting if the time does match with their time. Apart from this, it is very important to revisit organisational policy and process to ensure whether these are women friendly and bring changes if required.

Social Acceptance: Institutions must be very careful to ensure that promoting women leadership initiative in disaster risk reduction programme should not create any stress or workload on women. It should be designed and taken as normal work for women. If necessary, massive campaign should be design and implement to make people, especially men, understand that participation of women in disaster risk reduction system is essential and respectful initiative.



Flow of Information: It is quite natural that if information and technology are not within the reach of women, they are not able to up-to-date their knowledge and increase experience. Resulting this women's suggestion become feeble and less effective. If the disaster risk reduction system want to gain from women's participation, then the system has to ensure women's access to contemporary information and technology. Needless to say, these information and technology should be easy understandable and women friendly.

6.2.2. Control and Decision Making

Vital Issue- Women's attitude is different from men's attitude. They analyse the problems from their own perspective and attitude. So, it is essential to analyse women's suggestion intensively prior any initiatives. During constructing dam or shelter, for example, it is necessary to take into account women's insight and suggestion. However, taking women's concern at trifling or minor issue shows disregard towards women.

Take View into Consideration- Specific attention must be given to consider and reflect women's opinion in decision making. Other than this the entire process will become useless.

Active Deliberation- Controlled process to give opinion or participation for the sake of participation cannot bring any positive results. Central point of participation is to enrich the humanitarian programme by addressing women's knowledge and experience. It is not acceptable to facilitate controlled consultation to justify the pre-determined decision and it will not bring any good result for programme.

Voluntary Participation- It is women who will take their own decision which affects their lives. It is to women whether they will participate in any activities or not. Hence, it is not wise to impose "participation" on women without knowing their choice as it increase workload on their daily lives. Force or conditional participation may not helpful to get any qualitative suggestion or opinion from women. If conditional participation continues, women will come only to fulfil the condition, not to express their opinion.

6.2.3. Data

Data should be collated and analysed in a disaggregated way, so that men and women's separate need and risk reflects. At the same way, list of damages and demands should be collected in a disaggregated way. For example, number of death for men, women separately, how many women lost their shelter, how many men and women lost their income, number of women become head of household, etc.

6.3.4. Targeting

It is very important to set separate objectives and activities in the programme and projects to minimize the losses of women's asset and to address the special need of women. Such as, organizing women friendly early warning before any disaster, give information about how to minimize losses of poultry, preserve kitchen utensils, water resources, fire wood or vegetable seeds etc. If the programme objective set as generic one or in gender neutral way, then addressing or fulfilling women's special need remain far cry.

6.3. Promoting Women's Leadership at Society Level

Traditional thinking about women in our society is that women are less intelligent and have limited practical knowledge, they cannot understand the risk of disaster properly, apart from these they are thought to be physically weak. Thus, these stereotyping makes women dependant on men. It is dire need to bring changes in this attitude of society because women are just opposite in reality. They are more aware about the disaster risk, resulting this they think about it and adopt necessary strategies throughout the year to mitigate it. Women are able to think about those strategies to face any disaster as they always have to live their lives and manage family with limited resources.

Long term and consistent mass awareness through campaign is very effective to change this kind of discriminatory attitude towards women. It can be done in two ways, (1) mass education, publicity, courtyard meeting, community meeting, community base risk analysis, mass theatre etc; (2) Designing programme with specific objective to challenge the stereotyping, such as engage men and boys, providing life saving skills to girls and boys, skill to produce disaster resilient vegetable gardening etc.

6.3.1. Changes in Attitude

Socially structured norm and culture which are not constant. It can be changed over the time. So, it is not impossible to design women friendly programme and activities to reduce discriminatory attitude of the society towards women.

There are some changes visible in social norms and practices about women's income generating activities and disaster risk reduction of women. Such as,

- Nowadays, some tasks of women are considered as risk reduction activities. For example, making portable stove, preserving fire woods, dry food for emergencies and their social networks. During disaster, women's contribution to ensure food and pure drinking water for family also discussed as contribution. Apart from this, women taking responsibilities of head of household when their male members dead, or migrate during emergencies.
- Social taboo are seen to be relaxed in the case of women's livelihood and their income generating activities. Women are always involve in growing kitchen garden and rearing poultry; recently they are seen as day labourer in agriculture sector, digging, breakfield or in construction work.
- At present, women are participating at local disaster management committee. However, their responsibilities are limited to preparedness work and minimising the damages of disaster; women have no role in post-disaster economic rehabilitation work.

6.3.2. Public Education and Campaign

Social discrimination, women's risk during disaster and women's active role in reucing risk can be central agenda for mass education and campaign. Such as -

- It is very important to save women's lives than the dignity of family;
- Socially imposed rigid norms and values on women make entire family vulnerable;
- Women, first, respond to any disaster;
- Traditional and discriminatory socialisation process causes loss of lives;
- Women's own asset save other members of family during disaster;
- During disaster men lose their income and women take the responsibilities of household;



6.3.3. Demonstrative Project

Project can demonstrate specific objectives by challenging traditional division of labour between men and women. Such as -

- Educational institutes or local disaster management committee can organise life-saving skill development activities among boys and girls;
- To grow disaster resilient or fast growing vegetable;
- Introduce distributing vegetable seeds as relief item;
- Distribute poultry item as relief item;
- Introduce cash for work at household level (if women are targeted for short term training, male member of that family can be beneficiaries).
- Introduce kitchen utensil and firewood as relief item (kitchen knife, pot etc)
- Develop code of conduct for local people to participate at community action process (similar as code of conduct for employer to stop hiring child labour for risky job)

Though little, nowadays women's participation is visible in disaster related work, for example, women are member of committee, volunteer, participate in risk analysis etc. But, their presence is not enough to reduce their vulnerability during disaster. It is obvious to recognise women's contribution and establish as well as promote their central role in disaster risk reduction process to achieve the objectives. These initiatives will help to challenge existing division of labour, therefore, to reduce discrimination against women. Promoting women's leadership in disaster management will add value to it and will bring constructive and realistic changes in disaster risk reduction structure. Above all, this changes will help to reduce risk for all population along with women. Bringing the changes in disaster risk reduction structure is not possible for lone organisation, it can only kick the start. Concerted effort is necessary to materialise this changes.



Glossary

Accountability: 'Accountability' is all about how an organization balances the needs of different groups in its decision making and activities. Most NGOs have processes in place that will meet the accountability requirements of more powerful groups such as project donors or host governments.

Adaptation: The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Capacity: The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to achieve agreed goals.

Disaster: 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.

Disaster preparedness: The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

Disaster risk management: The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

Disaster risk reduction: The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

Gender: Gender means social relation between men and women that refers to the roles, responsibilities rights, relationships and identities of men and women that are defined or ascribed to them within a given society and context.

Gender access: Gender access to resources, facilities, services, funds, benefits and decision making refers to the differences between men's and women's rights and opportunities to make use of these resources and to take part in decision making, due to norms and values existing in a particular place and time.

Gender discrimination: Gender discrimination refers to any distinction, exclusion or restriction made on the basis of socially constructed gender roles and norms which prevent a person from enjoying full human rights.

Gender division of labor: Gender division of labor concerns the allocation of the tasks and responsibilities of men and women at home, at work and in society according to patterns of work that are felt to be acceptable in a particular place and time.

Gender equality: Gender equality reflects the value that both men and women are free to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles, or prejudices. Gender equality means that all persons are free to realize their full human rights and potential to continue to contribute to national, political, economic, social and cultural development, and to benefit equally from them, regardless of their gender. It does not mean that women and men have to become the same, but their rights, responsibilities and opportunities will not depend on whether they are born male or female, or how they self-identify.

Gender gaps: Gender gaps refer to societal differences between men and women.

Gender mainstreaming: Gender mainstreaming is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of the policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated (UNECOSOC).

Gender roles: Gender roles refer to how men and women should act, think and feel according to norms and traditions in a particular place and time.

Gender valuation of work: Gender valuation of work refers to the social and economic values attached to different tasks and responsibilities of men and women.

Hazard: A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Humanity: Humanity refers to the philosophy of showing sympathy to others through kindness and will wishes. It's a universal approach as it is therefore humanity approach doesn't differ due to the difference between community, nation or sex.

Leadership: It is such a process that helps a community or organization to reach its' desired goal. Generally a leader guides community or organization with deserving the local values and feelings. Leaders are the motivator, representative and delegate.

Mitigation: The lessening or limitation of the adverse impacts of hazards and related disasters.

Recovery: The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

Right: Right refers to the claim of getting facilities for self development. Rights formulated either from beliefs or legislation.

Response: The provision of emergency services and public assistance during or immediately after a disaster in order to save lives reduces health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Risk: Risk means the combination of the probability of an event and its negative consequences. The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

Risk assessment: A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

Risk transfer: The process of formally or informally shifting the financial consequences of particular risks from one party to another whereby a household, community, enterprise or state authority will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party.

Strategic gender needs: Strategic gender needs relate to women's empowerment and to what is required to challenge the gender balance of power and control to achieve gender equality. Strategic gender needs are addressed by challenging existing gender roles and relations between women and men.

Vulnerability: The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

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Pot Song

In an emergency situation, getting assistance is a right of disaster affected people as well as it is essential to follow basic principles of accountability in humanitarian response. Rupantar, supported by Oxfam-GB, has developed a 'pot song' on 'accountability in humanitarian response' which has presented the issues using folk media. The pot song on 'accountability in humanitarian response' is incorporated in the CD.

