

Empower- Women for Climate Resilient Societies

Prepared by

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Prepared for

UN Women Bangladesh



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Module 1 Introduction to Gender in Disaster Risk Reduction and Climate Change

Session Outline

Aim:

The ability of a CSO to internalize how community or society exposed disaster & climate induce hazards, vulnerability and risk and its impact on women

Learning outcomes: By the end of the session participants will (be able to):

- ✓ Effectively internalize different types of intersectional & gender discrimination
- ✓ Effectively explain the different types of disaster related hazard; vulnerability & risk
- ✓ Effectively explain the different type of factors influencing hazards e.g. climate change
- ✓ Why gender important for disaster risk reduction and climate change adaptation
- ✓ Effectively Identify gender differentiated impacts of disaster and climate change
- ✓ Enhanced understanding of disaster management cycle and addressing different needs of different group of people in different cycle of disaster management

Methodology

Title	Slide and Learning Outcome	Mins	Activity (including timings)	Arrangement	Resources
Learning Outcomes	2	25	Introduce learning outcomes. By the end of the session you will be able to....	Mapping Different types of intersectional & gender discrimination	Laptop projector and flip [chart, marker pen
Presentation on hazard, risk & vulnerability	4 -9 Effectively explain the different types of disaster related hazard; vulnerability & risk and Effectively explain the different type of factors influencing hazards e.g. climate change	45	- Introduce to hazard, vulnerability and risk	Discussion with slides & poster presentation and group exercise on Hazard Mapping	Laptop, and projector Flipchart and Marker Pen, VIP cards
Identify Gender Differentiated Impacts	10 Why gender important for disaster risk reduction and climate change adaptation Effectively Identify gender differentiated impacts of disaster and climate change	50	- Exercise with impact analysis table	Group exercise	Flip chart, marker, VIP cards,
Orientation to disaster management cycle	11 Enhanced understanding of disaster management cycle and addressing different needs of different group of people in different cycle of disaster management	50	- Introduce to disaster cycle management	Discussion and internalizing why women are more vulnerable at what stages of cycle	Flip chart, marker, VIP cards,
Reflection on learning	Reflection cards	10	Refer to the learning outcomes <ul style="list-style-type: none"> - What is happening - Why is happening - Likelihood of impact on women - What community should do 	Presentation of reflection cards and plenary discussion	Laptop, and projector and VIP cards

Exercise Tool on What is Social Definition and Natural Definition on Women’s Role

<u>No</u>	<u>Define by society</u>	<u>Define by Nature</u>	<u>Remarks</u>
<u>01</u>	<u>Women can be pregnant but men cannot</u>		
<u>02</u>	<u>Women are soft but men are strong</u>		
<u>03</u>	<u>Girls play with doll and boys play with cricket</u>		
<u>04</u>	<u>Women are getting lesser salary for same job and sports</u>		
<u>05</u>	<u>Adolescent boys face broken sound at puberty but women do not face such issue</u>		
<u>06</u>	<u>Men are responsible for earning and women are responsible for domestic works</u>		

Generic Safe Guarding Issue



Example poster will be created from module 1 exercise to recap in this session

What is Disaster

- A **disaster** is a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed **the**

community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins. (IFRC)



	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
<u>Stage</u>	<u>Localized incident</u> <u>Example</u> <u>Water Logging,</u> <u>Nipa Virus</u>	<u>Significant loss</u> <u>of life and</u> <u>property in</u> <u>region/s)</u> <u>Example</u> <u>Sidar, Aila,</u>	<u>Intensity is extremely high and</u> <u>require international cooperation</u> <u>Example</u> <u>Rohingya influx</u>

What is Hazard

HAZARD is any substance, phenomenon or situation, which has the potential to cause disruption or damage to people, their property, their services and their environment

Classification of Hazard

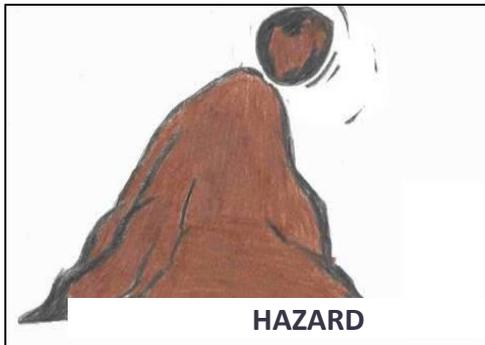
- Natural
- Biological
- Technological
- Societal

Secondary hazard

- Fire

Intensity of Hazard

- Slow onset
 - Rapid onset
-
- Return time



Prepared poster will be presented to explain hazard for brainstorming

Is Hazard on Rise and Why

Climate change (Basic understanding on what is climate change to explain cause of hazard)

- Sea level rise
- Global Warming
- Urbanization
- Population growth
- Resources Degradation (land, water bodies)
- Poverty

What is Vulnerability

Vulnerability is a concept which describes factors or constraints of an economic, social, physical or geographic nature, which reduce the ability to prepare for and cope with the impact of hazards.

Prepared poster will be presented to explain vulnerability for brainstorming (brainstorming will have special focus on factors which demystify women related vulnerability, for example prevailing socio-economic arrangement of the area concerned causes types of vulnerability for women)

Story: Women's Living with Health Insecurities in the Flood- Experiences from Jamalpur

Women at flood-affected areas encounter with enormous vulnerabilities, amongst those, health insecurity is one of the hot spots from an accountability perspective. During floods, latrines are mostly out of order. Women cannot defecate in open areas due to conservative social practices and restricted mobilities; which are not problems for men. In such cases, women visit toilets infrequently, with prolonged intervals creating health problems for themselves. Tasrma Begum, a 38-year-old woman from Melandoho Upazila of Jamalpur District says **“During flood, animals and insects also look for dry places. My latrine, which was the only thing not submerged in my house during flood, became a shelter for earthworms, snakes and cockroaches. it was not usable. I hold myself for two days. I was rarely taking a sip of water to stop myself from going to toilet.”**

Despite cultural norms and social challenges, women tried overcoming toilet-related challenges with their indigenous coping mechanisms e.g. building alternative latrines at a dry place using bamboo sticks and wrapping the outside with polythene or plastic papers; using plastic bottles or floating drums. But such adjustments deny the Core **Humanitarian Standard of preserving the safety and dignity of disaster-affected populations.**

Ayesha, a pregnant woman from the same village found it difficult to move during flood. The roads were slippery, and toilets were out of order. Finding out an enclosure to use as toilet was challenging. Later, she was taken to government's emergency medical service centre for pregnant women.

Women and adolescent girls constantly struggle with menstrual cycle management during flood. Tasrma shared her experience - “the water-level was up to my waist. I had to keep on wearing wet and dirty cloths all the time. Being in water for so long with not an opportunity to change wet napkin caused irritation and itching around my vaginal area. I collected some talcum powder from my neighbour and applied those at night on the affected skin”. This sort of unhygienic practices generates high risk for vaginal infection and other water-borne disease.



Food insecurity increases women's vulnerability during disasters. As early preparedness, women usually reserve dry foods for emergency. The reservation is not always adequate to meet the ends. But women prioritize to feeding their families over them by saving their portions for later days. The irregular consumption of food deteriorates women's health resulting in clumsiness, dizziness, and sickness. In rural areas, key sources of regular protein supplies such as poultry and livestock are often washed away during flood. On top of that most of the homestead gardens are also washed away. Hence, the situation creates a serious nutrition crisis for women and family members. Pregnant women are more vulnerable than others due to absence of nutritional diet.

skin disease is another major concern for women living in flood-affected areas. women seldom use footwear here. Especially in water logged areas, women mostly suffer from skin disease in feet as they continuously walk in the water to complete household chores. Sabina from Pachpoyla village shared, "**Men**



don't need to get down into the water, they can easily seat ideally at a dry place. But, I must cook to feed my family, I must worry about collecting drinking water, so I must walk into the water in search of daily necessities". The women also experienced physical injuries such as cut, scratches, body ache for doing household chores moving into water.

The flood situation also influences the conjugal life that cause both women's mental and physical health. The water-logged condition minimizes traditionally assigned role of men and they spend most of the time at home with limited activities. In this context, husbands become more demanding for sexual intercourse. In few cases, Men do not consider the privacy and force wives for sexual intercourse in any situation which is not dignified for a woman. Sabina shared, "**Men, become mentally unstable and restless sitting lazy during flood. The marooned situation stimulates their urge for sexual intercourse. Women can hardly manage to meet their husband's sexual demands; hence they go through psychological stress and to some extent become the victim of sexual abuse.**"

Photo and information credit: Laila Sumaiya, Communication professional

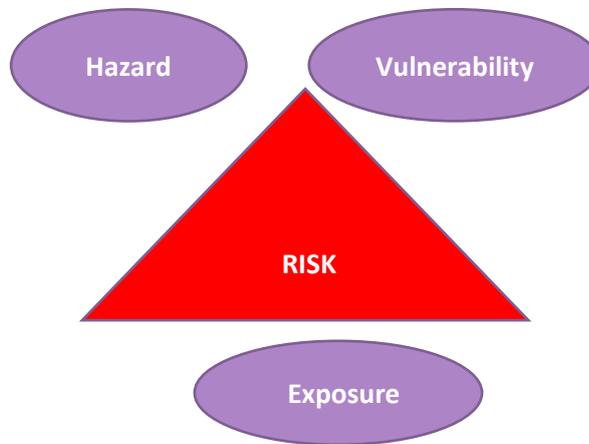
Location: Melandoho Upazila, Mahmudpur Union, Pachpoyla Village

Concepts of the Risk and its Analysis:

- Drought
- Flood
- Water Logging
- Cyclone
- Tidal Surge
- River erosion
- Land slides
- Salinity
- Cold Wave
- Social Unrest
- Chemical Explosion
- Fire
- Earthquake

Consequences:

- Disruption of economy & social
- Physical damage
- Environmental impact
- Infrastructure damage



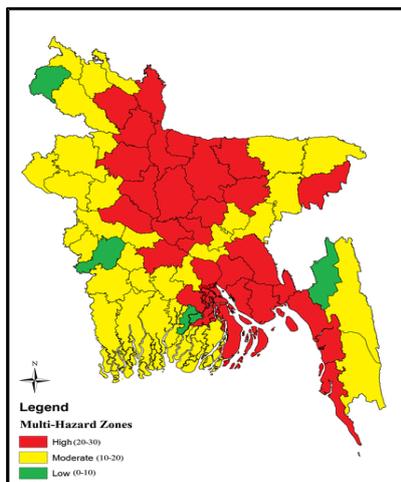
$$\text{Risk} = \text{Hazard} \times \text{Exposure} \times \text{Vulnerability}$$

Why women are more Vulnerable:

- Economic Factor** – Lack of earning
- Social factor-** No decision-making power, Gender blind and biased culture, Gender biased religious norms, Patriarchal norms
- Environmental factors-** Susceptible to health risk, Food insecurity

Exercise 1 DRAW a hazard & vulnerability Map

Participants will draw hazard & vulnerability map on poster paper in a group – 5 groups and each group consist of 6 participants



For example, participants of Satkhira and Khulna will identify:

- what might happen?
- when might happen? and
- where might happen?

Instruction: Hazard maps outline zones that are defined in terms of the Hazard Zone has the probability of occurrence of potentially damaging phenomena within a certain span of time within a specified location or an area

Identify Gender Differentiated Impacts

	Tangible	Intangible
Single/Divorced		
Widow		
Adolescent		
Differently Able		
Transgender		
Sex Worker		
Women with different religion		
Elderly		
Pregnant women		
Bondha (unable to birth)		
Working Women		
Housewife		
Unmarried		
Early Married		

Story: Flood Affected Women's intersectional Vulnerability - From Jamalpur

Social norms and power relations make women more vulnerable when disaster hits. Women without male guardian face many challenges. Tasrifa Begum was the only bread-earner of her family including two sons and husband suffering from Fistula. Her husband's sickness significantly multiplied her struggles and become more vulnerable when facing lifesaving situation due to flood. During the flood, usually many people borrow from the local grocery. However, a woman with no male earner at home is not convincing enough to be a borrower even in a local grocery store.

It has been 20 years since Saleha's husband died. Saleha, now 55, lives on her own in a hut near the Jamuna river with minimum financial support from her son. Her son is a migrant worker and living in different districts for livelihood. To defend her house from flooding, she used water hyacinth as she could not carry heavy sand bags at this age. Her neighbours used sand sacks from embankment to heighten up their houses as they have physically-abled male members in their families.

Basiron, a single 45-yearold woman has clubfeet since birth. She has two younger brothers who got married and d with their families moved to adjacent districts. Barison is also responsible for taking care of their widowed mother. During the flood, life became even more challenging for Basiron as she had to look after her ailing mother and the possessions they have. All her reserved firewood washed away, she managed to cook once in two days to feed her mother. Moreover, her brothers would accuse her in case of loss of any possession. She managed bricks to lift the furniture from floor to save those from being inundated. With clubfeet, it was extremely difficult for her to walk in the water and carrying heavy bricks back to her house

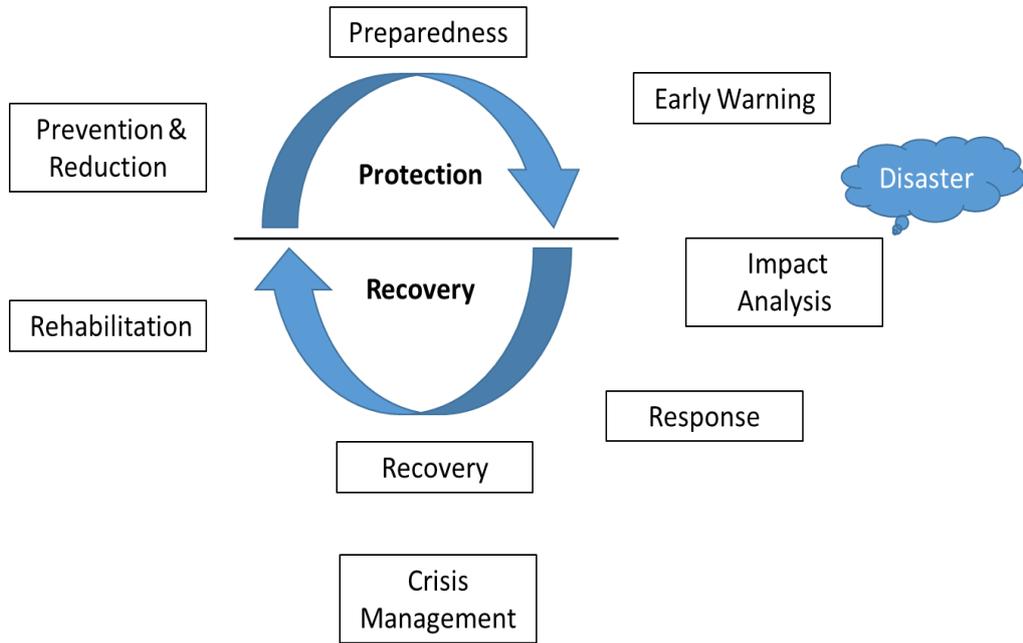
All these contexts give a clear message that humanitarian field need more relevant and systematic approaches & measures for the protection of older people and people with disabilities in disaster.



Photo and information credit: Laila Sumaiya, Communication professional

Location: Amitti Village, Ghoserpara Union, Melandoho Upzila, Jamalpur

Disaster Management Cycle



Module 2: Climate Change and Rural Livelihoods

Aim of the module: The ability of the CSO to relate rural livelihood patterns with climate change and take examples from their own experiences as case studies to be able to relate the relationship between the two.

Learning outcomes: By the end of the module, the participants will be able to explain the key impacts of climate change on rural livelihood and how the two are inter-connected through a number of socio-economic, environment and cultural aspects. The participants will also be able to understand the sectorial impacts of climate change and how they result in rural livelihood pattern. The module will also cover gendered perspective of climate change and livelihood relationships.

Sections of the module:

2.1. Introduction to climate change and rural livelihoods in Bangladesh

2.1.1. Climate change science

2.1.2. Climate change impacts in Bangladesh: A Synopsis

2.1.3. Rural livelihood in Bangladesh: Background and Community Livelihood Pattern

2.1.4. Climate change and livelihood relationship

2.2. Gendered Impacts of Climate Change on rural livelihood

2.2.1 Climate change impact on Agriculture and Food security

2.2.2 Climate change impact on fisheries and livestock

2.2.3 Climate change impact on Forests and biodiversity

2.2.4 Climate change impact on Water, Sanitation and Hygiene (WASH) 2.2.5

Impact of women's livelihood due to climate change

Methodology

Title	Slide and learning outcome	Time (mins)	Activity	Learning Methods (on site learning)	Resources
Learning Outcomes	2-4 slides	10	Introduce to the aim of the module and learning outcomes	Discussion with slides	Laptop and projector
Video presentation on Climate change science	4-6 slides Effectively able to understand the basic science of CC science	10	Introduce to the basic science of CC	Discussion with video clips and slides	Laptop and projector
Video presentation on Climate Change Impacts in Bangladesh	Effectively able to internalize and explain the key impacts of climate change on rural livelihood.	30	Introduce to Climate change impacts in Bangladesh: A Synopsis	Discussion with video clips and interactive discussion	Laptop, projector, flip chart and marker pen,
Rural livelihood in Bangladesh: Background , Community Livelihood Pattern and Climate change and livelihood relationship	8-10 slides Enhanced the understanding level and able to explain how the two (CC and livelihoods) are interconnected through a number of socioeconomic, environment and cultural aspects	30	Demonstrate to how the impacts of climate change induced hazards have an impact on the rural livelihood of the communities	Presentation with slides	Laptop, projector, flip chart and marker Pen,
Impacts of Climate Change impacts on rural livelihood (from gender lens)	10-12 slides Effectively able to understand the sectorial impacts of climate change and how they result in rural livelihood pattern and how they affect women's livelihood	60 (Ppt-20 Group exercise-20 Game and discussion20)	Introduce to Climate Change (sectorial) impacts on rural livelihood from gender lens	Group Exercise (5 teams including 4 members and 1 team leader) and game with interactive discussion	Laptop, projector, flip chart and marker Pen,

2.1. Introduction to climate change and rural livelihoods in Bangladesh

Bangladesh is geographically exposed to a multitude of adverse impacts of climate change, because of its location in the tropics, in the delta of three of the world's biggest rivers and its flat low-lying deltaic topography. The country is surrounded by India on its northern, eastern and western borders, and Myanmar and it connects the fertile Ganges-Brahmaputra delta (World Bank, 2000). This geographical setting makes Bangladesh a low-lying country making it susceptible to a number of natural disasters. As a result of the innate vulnerability of the country, there are resulting impacts in the most helpless communities who particularly reside in the rural sectors of Bangladesh. This section will elaborate on the ways the impacts are felt at those levels.



Image 1: Climate change impacts in a rural livelihood (Credit: D+C, 2017¹)

¹ <https://www.dandc.eu/en/article/climate-change-threatening-livelihood-many-people-along-vietnams-coast>

2.1.1. Climate change science:

Climate change occurs when changes in Earth's climate system result in new weather patterns that remain in place for an extended period of time. This length of time can be as short as a few decades to as long as millions of years.

The climate system comprises five interacting parts, the atmosphere (air), hydrosphere (water), cryosphere (ice and permafrost), biosphere (living things), and lithosphere (earth's crust and upper mantle). The climate system receives nearly all of its energy from the sun, with a relatively tiny amount from earth's interior (Rishbeth & Clilverd, 1999).

Climate variables that are related to temperature change include:

- Increase in very hot days and heat waves
- Fewer cold days and nights
- Increase in intense precipitation events
- Increase in drought conditions
- Increase in the frequency of floods
- More frequent strong tropical cyclones
- Sea level rise and storm surges
- Increase in CO₂ concentration

Climate systems and energy equilibrium

- ✓ The climate system gives off energy to outer space.
- ✓ The balance of incoming and outgoing energy, and the passage of the energy through the climate system, determines Earth's energy budget. When the incoming energy is greater than the outgoing energy, earth's energy budget is positive and the climate system is warming.
- ✓ If more energy goes out, the energy budget is negative and earth experiences cooling (Vitousek, 1994).

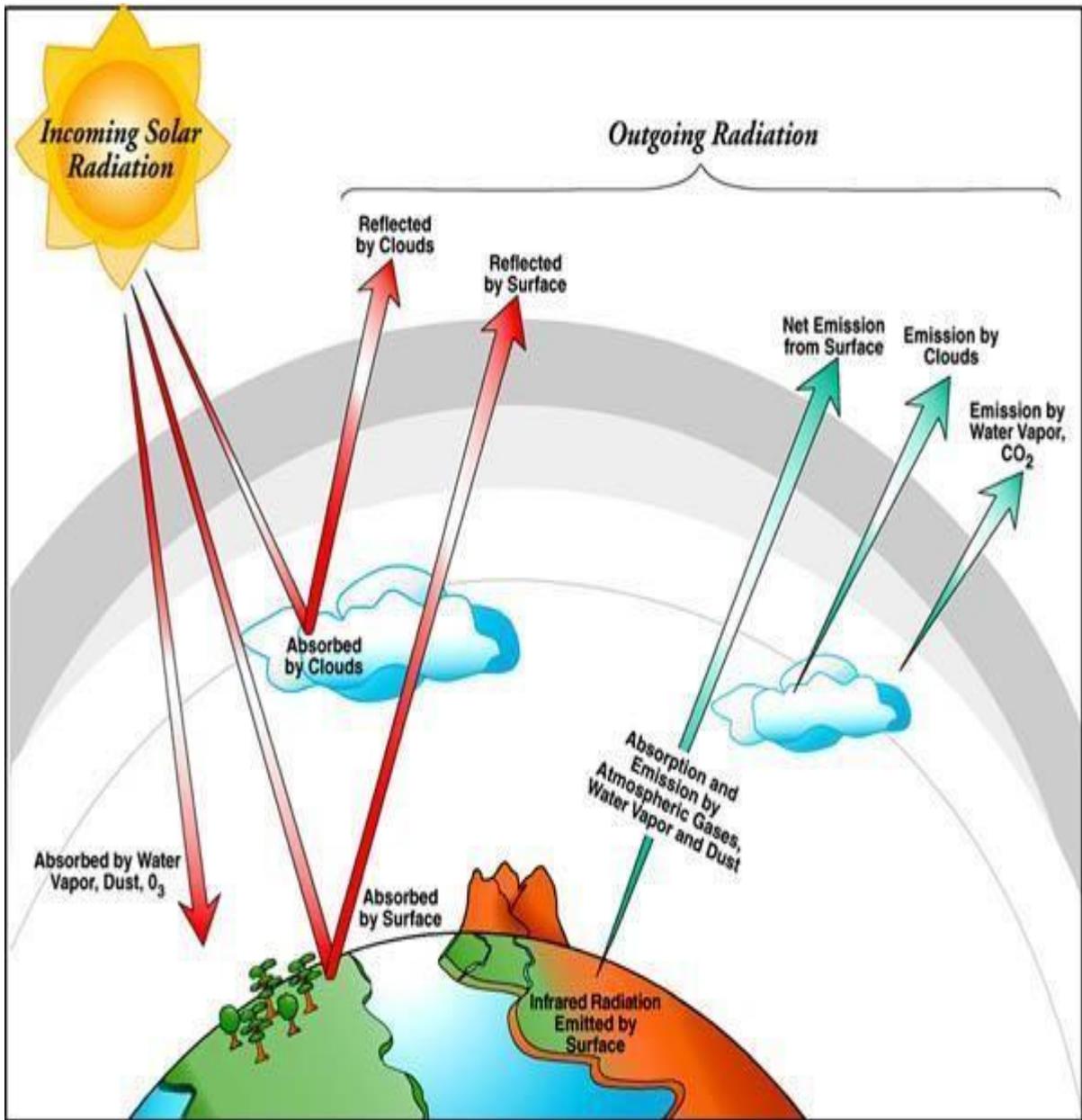


Figure1: Incoming solar radiation and outgoing radiation²

² https://serc.carleton.edu/earthlabs/weather_climate/lab_2.html

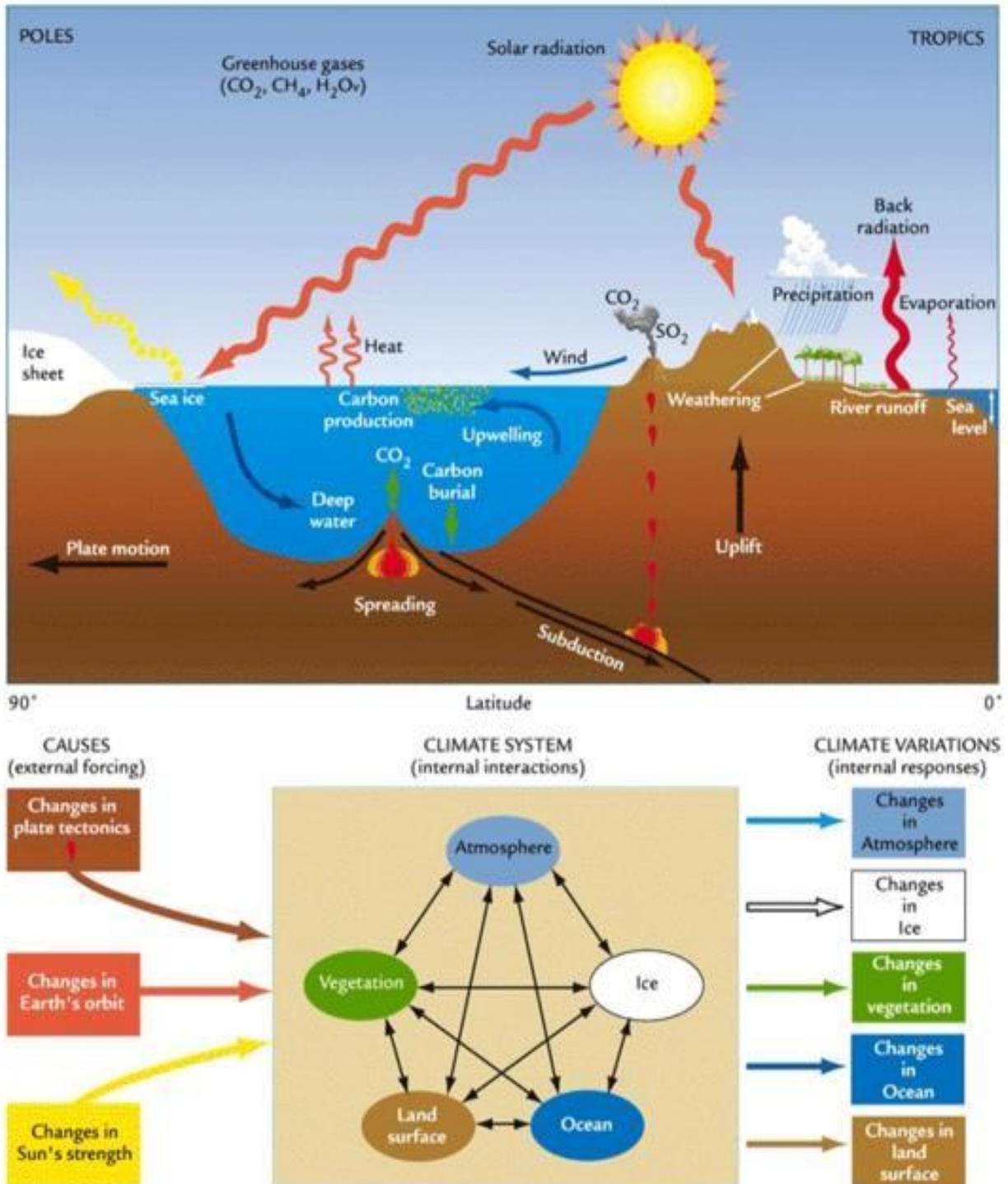


Figure 2: Climate system and inter-linkage with variations and external forcing³

³ <https://wiki.fis-ski.com/index.php/Image:EarthSystem.png>

2.1.2. Climate change impacts in Bangladesh

Climate change is one of the greatest threats in Bangladesh and global warming has significant impact on our climate and health. Its serious worldwide implication calls for immediate actions to reduce emissions which is affecting the entire planet (Saha, Ali, Haque , & Jonsson, 2014). Some of the climate change impacts in Bangladesh are listed below which has had huge impacts on the most vulnerable populations of the country:



Figure 3: Different Climate Change Impacts

What impacts are most felt in Bangladesh?

The climate change impacts in Bangladesh need to be understood by first decoding the bio-geophysical systems and their implications on human society, economy and development.

Bangladesh is highly susceptible to

- Increased flooding
- Increased moisture stress
- Increased salinity intrusion

The above mentioned have a direct impact on the major productive systems which include: (Saha, Ali, Haque , & Jonsson, 2014).

- Crop agriculture
- Livestock
- Fish production and aquaculture system
- Coastal shrimp production
- Forest and vegetation

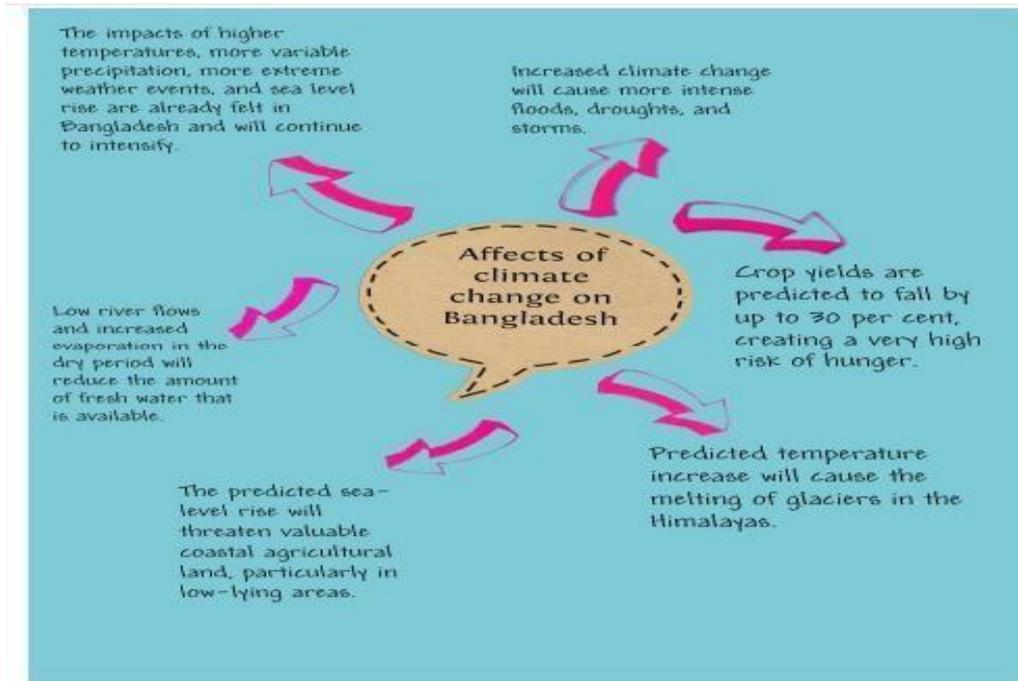


Figure 4: Impacts of climate change in Bangladesh (Biswas, 2013³)

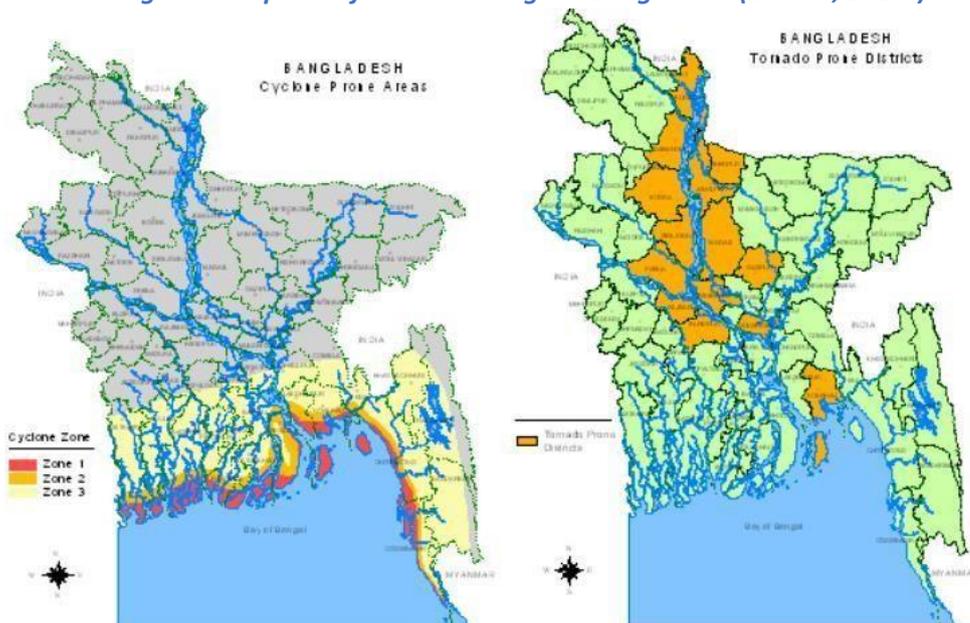


Figure 5: Impact areas of cyclones and tornadoes in Bangladesh (Rojas-Downing, 2017)

³ http://www.bip.org.bd/SharingFiles/journal_book/20140128164211.pdf

Consequences of climate change impacts:

Flood and water-loggin: Flood and water-logging situation is another impact of climate change. In the coastal regions, there will be stronger backwater effect from SLR. The projected increase in the rainfall during the monsoon would be reflected in the regimes with which rivers flow in Bangladesh (Saha, Ali, Haque, & Jonsson, 2014). Hence, as a result of flooding and drainage, there could be expected results of increased rainfall due to warmer and wetter conditions.

Run off: The impact of increased run-off causes existing drainage system of the country to become worse. Bangladesh Rivers have lost its gradient over the past years and hence the capacity of their conveyance has also gone down (Saha, Ali, Haque , & Jonsson, 2014). Therefore, increase in monsoon rainfall will make the drainage problem even bigger, especially during the times of flood.

Sea level rise: In the coastal belt would not only submerge the areas that are low-lying in Bangladesh but would also create a favorable condition for saline water to flow over the embankments. This will be truer when there are strong winds. In Bangladesh, the polders are at risk of submergence, especially in the southwestern districts (Saha, Ali, Haque , & Jonsson, 2014).

Cyclone and storm surges: Cyclone and storm are also increasing the vulnerability of the country. The coastal zones of the country are and will be more vulnerable to climate change driven cyclonic storm surges. It will be so as a result of rising Sea Surface Temperature (SST) which is another concern even for the aquatic plants and animals (Saha, Ali, Haque , & Jonsson, 2014).

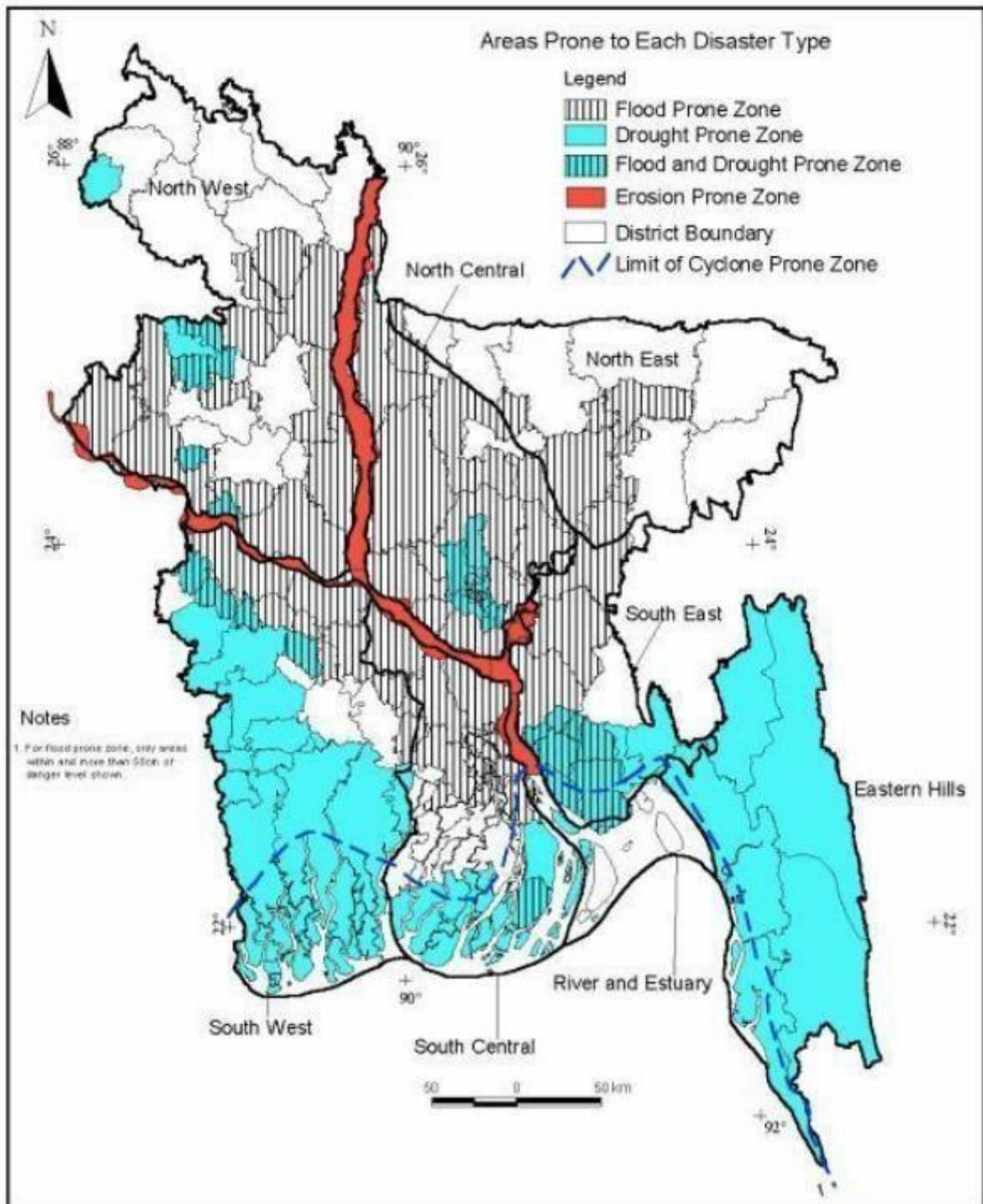


Figure 6: Map of Bangladesh showing areas which have been affected during drought, flashflood, cyclone and salinity intrusion (Setu et al., 2014)

2.1.3. Rural livelihood in Bangladesh: Background and Community Livelihood Pattern

Bangladesh is a small deltaic country located in South Asia. Owing to a number of natural and manmade factors, the country is highly vulnerable to some water-related extreme events (Ahmad 2000).

Livelihoods of majority of rural people depend on available biophysical resources.



Figure 7: Rural livelihood in Bangladesh (Rojas-Downing, 2017)

Global change, with its multifaceted and compounding problems, will have profound implications for the agro-ecosystem of the country, which in turn will adversely affect Livelihood of millions of Bangladeshis in future decades (Ahmad and Ahmed, 2002).

The rural livelihood in Bangladesh involves communities engaged in various sectors to make a living from the limited resources. Usually, agriculture makes a huge part in earning income for the farmers, while some are engaged in fisheries, daily labor jobs etc.

Rural livelihood related to agriculture

The farmers are usually involved with agricultural activities and growing various types of crops. Some of the farmers use their free and available times to interchange their work as fishermen but the farmers usually grow various types of crops in varying seasons of the year including the *Dhulat* crops, which by definition, include crops like peanuts, chili, potato, lentils, etc.

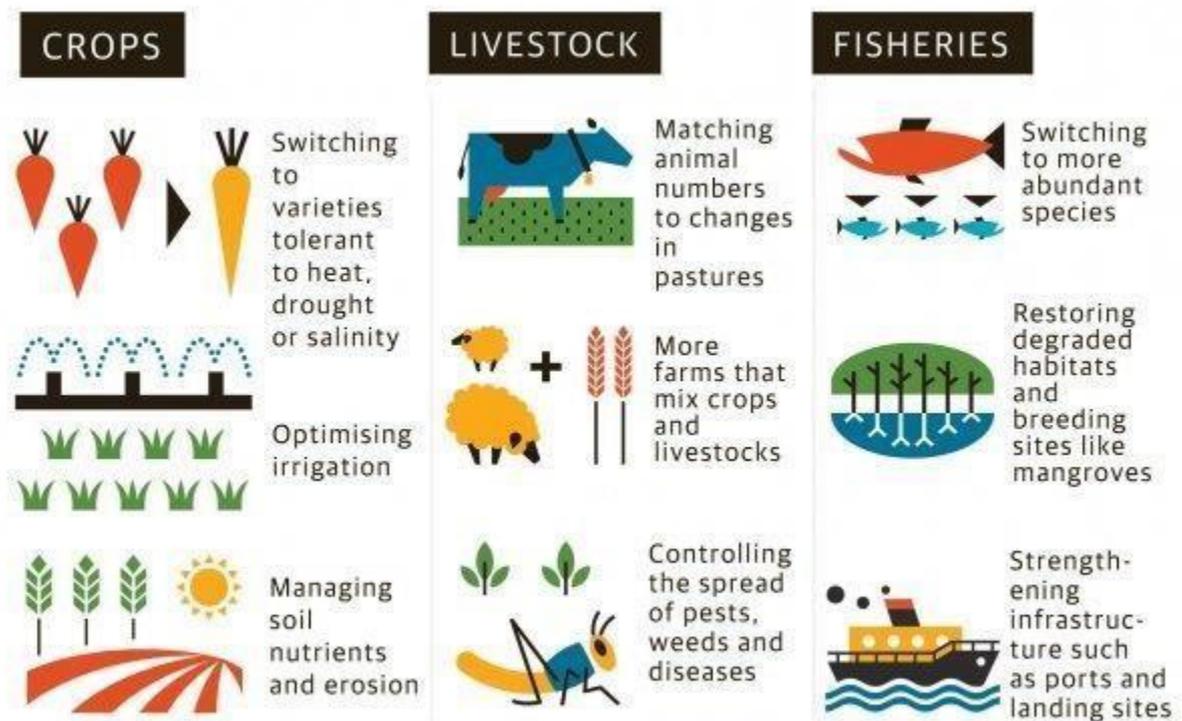


Figure8: Some ways to adjust to climate change in livestock and fisheries (CGIAR, 2014⁴)

The farmers can produce plenty of agricultural crops on their fertile farm land if the climatic conditions are favorable. Mostly they produce paddy along with some seasonal vegetables like potato. During excess rainfall, there is waterlogging problem which in turn causes problems in crops because the crops get too soaked in the water and becomes unusable for human consumption. This is particularly common during the monsoon season (BCAS, 2016).

⁴ <https://ccafs.cgiar.org/blog/climate-change-and-farming-what-you-need-know-about-ippcreport#.XWT7P6czblU>

Rural livelihood related to fisheries:

Most rural communities are involved in fishing as mainstream fishermen. Usually, fishermen either go for small-scale fish farming while the other goes out to the open sea for larger scale fish farming. Hence, some look after their hatcheries from time to time as well and some fishermen have their own people to help them look after the fishes too. In the meantime, the fishermen also look after the market and engage in selling the fishes that they have bought to make the most of the time (BCAS, 2016).

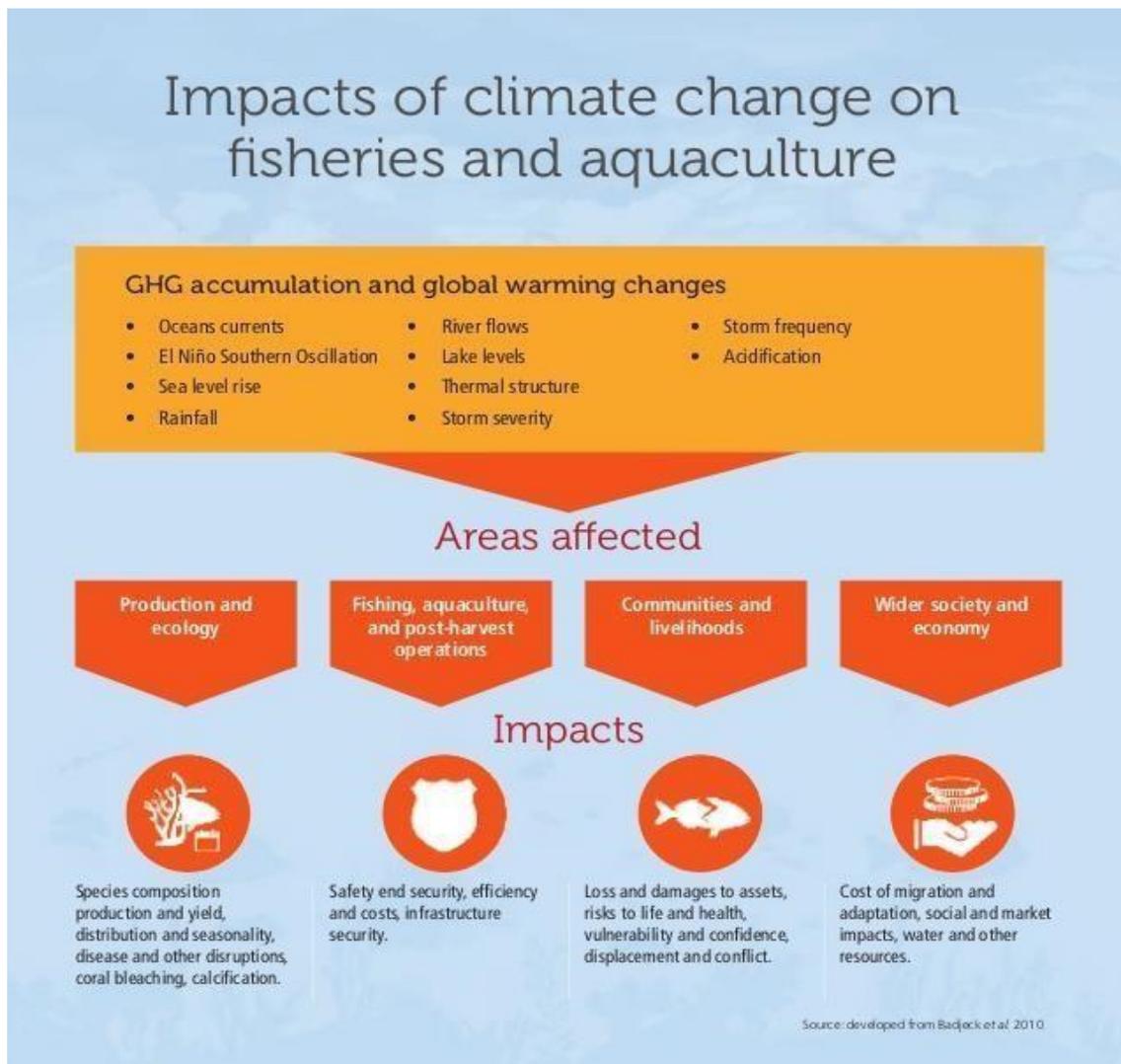


Figure 9: Climate change impacts on fisheries and aquaculture (FAO, n.d⁵.)

⁵ <https://www.slideshare.net/bakeralan/climate-change-and-fisheries-and-aquaculture>

Rural livelihood related to daily labor activities:

The daily labors in the rural sector are engaged in various kinds of activities. In the rural communities, many people earn income by pulling rickshaw and van. Some farmers own their lands while some farm on lands owned by else. On the other hand, the old men do not engage in physical labor but they look after the cattle in their homes while their sons and children are usually engaged in income earning activities (BCAS, 2016).

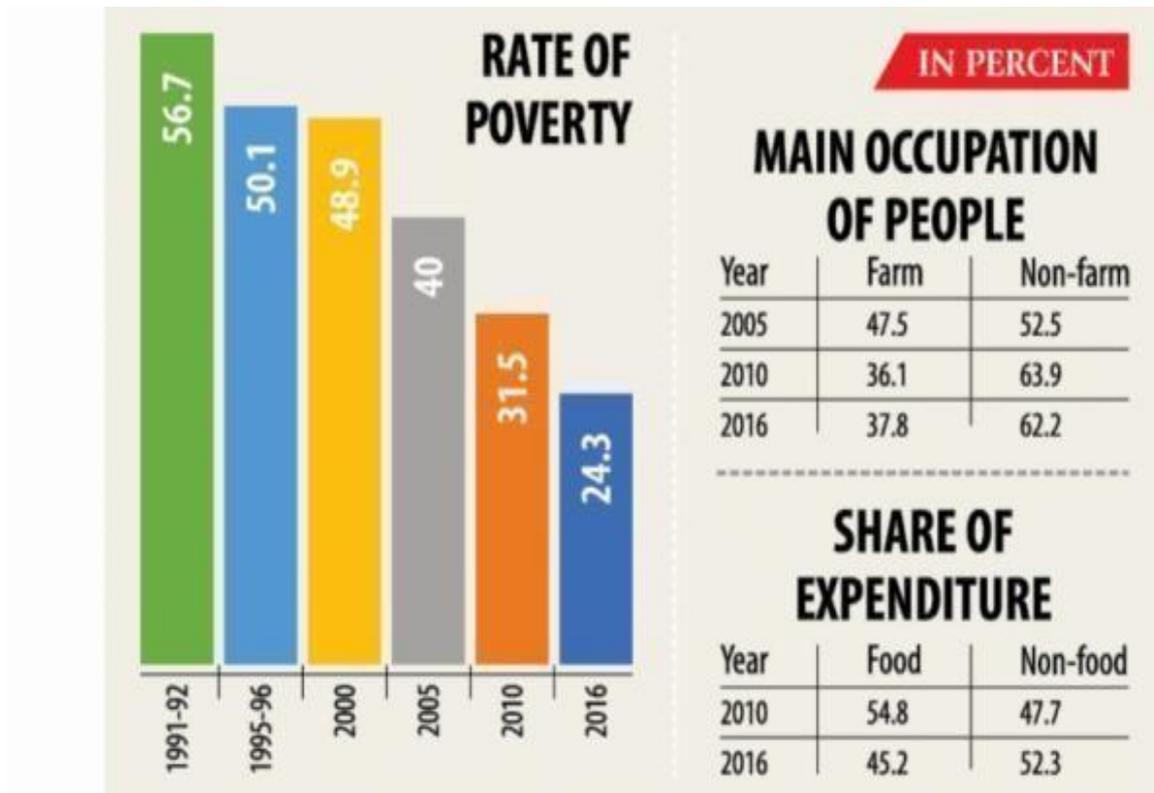


Figure 10: Poverty profile from 1991 to 2016 (The Daily Star, 2019⁶)

In Bangladesh the rate of poverty has been reducing since 2010 (The Daily Star 2019). However, the country has recorded more than 6.5% economic growth during the period according to Bangladesh Bureau of Statistics (BBS).

⁶ <https://www.thedailystar.net/frontpage/news/poverty-declining-slower-pace-1743196>

Rural livelihood of the women and elderly:

Working women and housewives in rural sector of Bangladesh are all engaged in laborious tasks throughout the day. As for livelihoods in this area, rice is grown along with other crops and vegetables by the women too. These women also have to cook, raise children, do household chores, and fetch water and other household activities (BCAS, 2016). Sometimes they also have to go for small scale poultry farming and related dairy livestock farming homestead vegetables gardening while they also have to help their husbands harvest the crops etc. The elderly women are usually in the homes and are dependent on their sons and daughters, looking after the grandchildren while the women are also looking after their household chores.

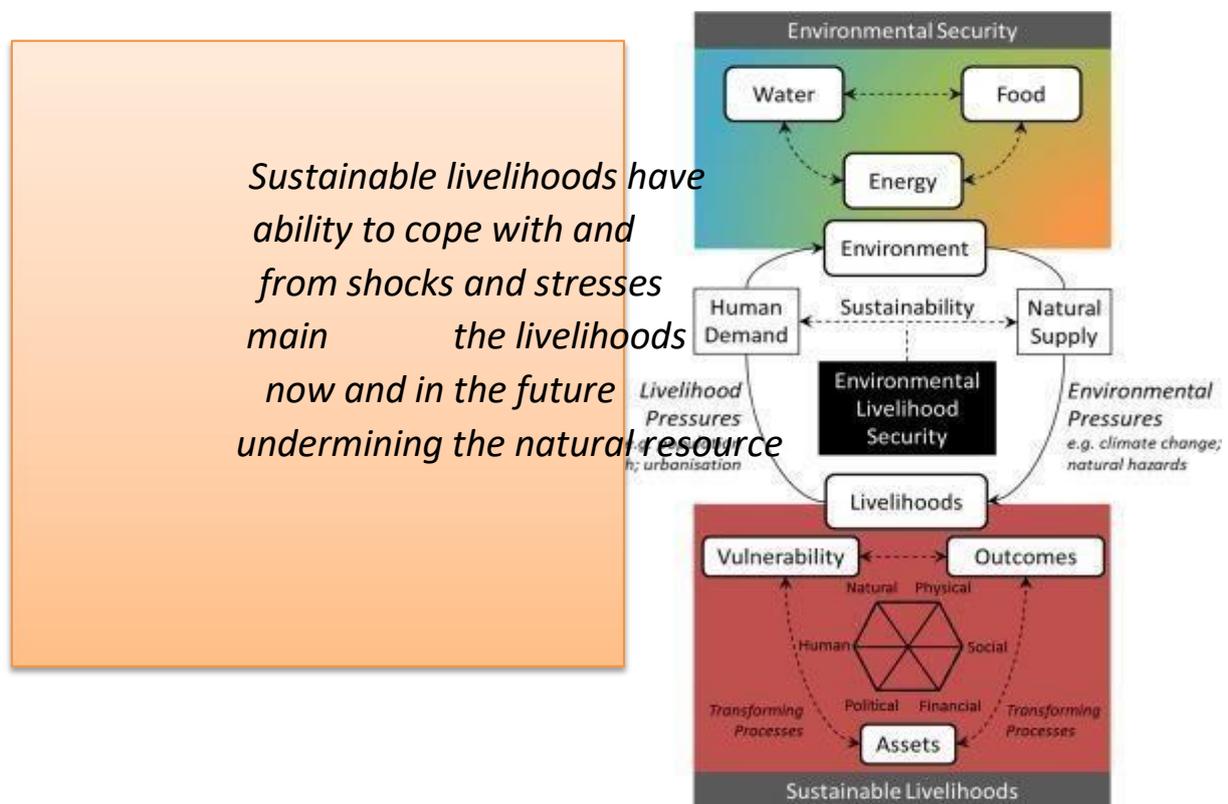


Figure11: Rural women in Bangladesh being engaged in agriculture work (The Daily Star, 2013⁷)

⁷ <https://www.thedailystar.net/news/climate-change-women-and-food-security>

2.1.4. Climate change and livelihood relationship

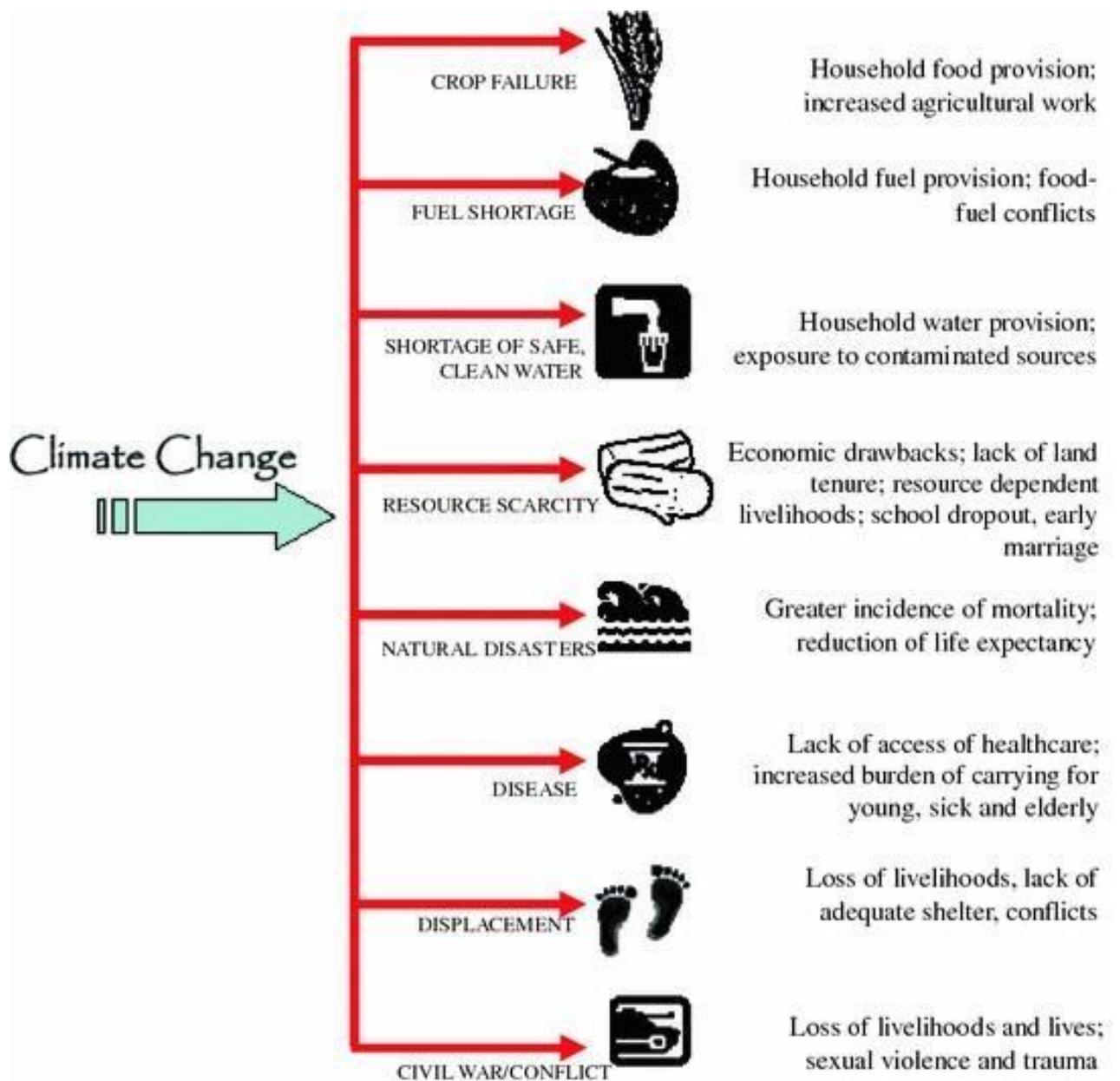
Climate change has a huge linkage with rural livelihood patterns. It impacts differently in the lives of the farmers, fishermen, daily laborers and the women and elderly communities. The following section will demonstrate how the impacts of climate change induced hazards have an impact on the rural livelihood of the communities. Livelihoods of majority of rural people depend on available biophysical resources. Hazards such as floods, river erosion, water logging, drought, cyclonic storm surge, etc. Such hazards, most of which are water related, often give rise to human miseries and bring forth disastrous consequences. As an aftermath of a hazardous event, often beyond the inherent coping capacity of poor households, it becomes difficult to maintain livelihoods (Ahmed, 2005).



Sustainable livelihoods have ability to cope with and from shocks and stresses main the livelihoods now and in the future undermining the natural resource

Figure12: Flowchart showing environmental livelihood security (Biggs et al., 2015)

Climate change and livelihood: A Visual Info-diagram



UNDP, 2006

Figure13: Climate change impacts on livelihood (Hossain et al., 2012)

2.2 Impacts of Climate change on rural livelihood (from gender lens)

Climate variability drives the increasing scarcity of natural resources, which mostly affects women's human capital in the forms of health, time, and labor, due to their traditional roles as water and food

collectors for the household. The impacts of climate change are heavily felt by rural communities. Sectorial impacts of climate change are suffered by farmers, fishermen, daily labors etc. There are other impacts of climate change on human health, forests, biodiversity for which the overall socioeconomic condition of the area gets hampered. The following section will elaborate on such sectorial impacts of climate change from gender perspective in the sectors of (a) agriculture and food security (b) fisheries and livestock (c) forests and biodiversity (d) Water, Sanitation and Hygiene (WASH) and the overall climate change effects of women and how their livelihoods are impacted.



Figure14: Rural livelihood in Bangladesh (DW, n.d⁸.)

2.2.1 Climate change impact on agriculture and food security:

The impact of climate change results in heavy rainfall and excessive water logging which inundate the farmland. Being submerged under water, the paddy slowly decomposes and is rendered unsuitable for consumption. Rivers also frequently overflow and flood adjacent farmlands. Without the presence

⁸ <https://www.dw.com/en/hard-hit-by-climate-change-bangladesh-finds-solution-in-floating-gardens/a47304742>

of proper drainage provisions or embankments, such problems only worsen as the rivers are not able to handle such large volumes of water. However, weak and poorly planned construction of embankment makes it more susceptible to failure. The sheer force of water flowing down a river during peak discharge often damages or destroys the embankment resulting in floods. All these have a result in agriculture. This flooding washes away trees, houses, poultry and cattle, and destroys housing construction and damages road construction. Rainfall has a large-scale impact on the agricultural sector and on the lives of the farmers. During heavy rainfall crop cultivation is hard as the inundated land cannot sustain crops.

Multiple impacts of global warming and climate disruption on agriculture

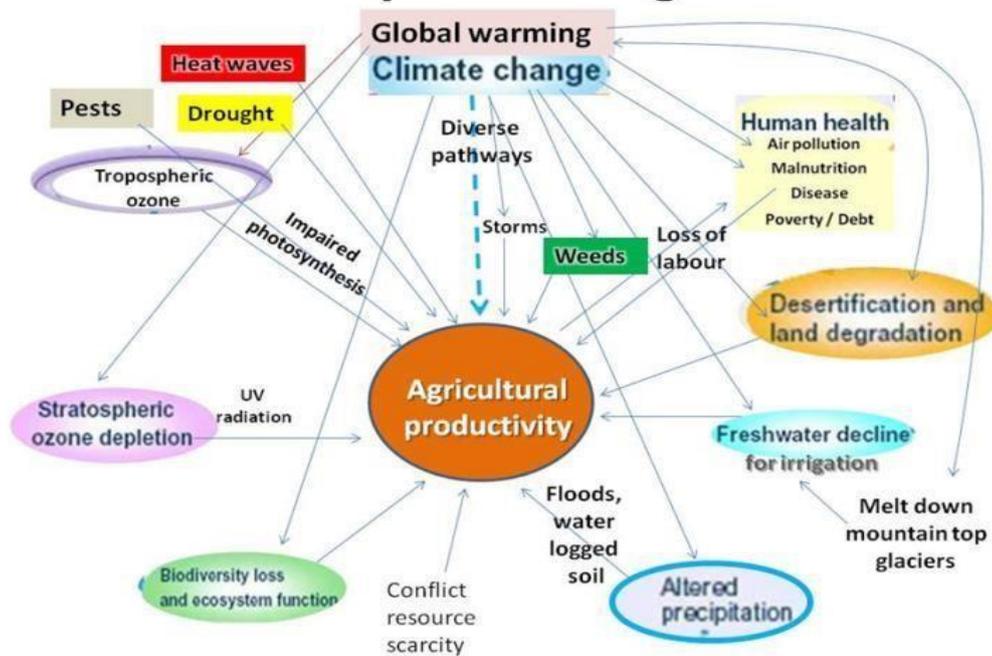


Figure15: Impacts of climate change on agriculture (Food Security for Food Justice, 2017)⁹

In addition, crop failure as a result of sporadic rainfall may result in the selective malnourishment or starvation of girls and women, especially in cultures where men are used to eating before women and girls. Selective malnourishment of 'less important' members of the family can also be used as a strategy to ensure the family's survival. Women also often face the most negative economic implications of crop failure as they usually have fewer economic resources to fall back on in times of

⁹ <https://foodsecurityfoodjustice.com/2017/01/21/the-adverse-impact-of-climate-change-on-food-security/>

crisis. This also has implications for the health of many women and girls, as malnourishment increases the risk of contracting infections. Further, women and girls' lower socioeconomic status make it more difficult for them to access and pay for treatment.

2.2.2 Climate change impact on fisheries and livestock

Climate change causes impediments in the fisheries sector. The fisheries sector and livestock have also experienced an adverse effect because of the impacts of climate change. In addition to affecting human beings, natural disasters cause tremendous sufferings for the livestock population of Bangladesh. Livestock suffer large-scale death in cyclonic storm surge (Haider et al., 1991). Unmarried and widowed women with children suffered most from crop failure, and resorted to selling small livestock but prolonged flood can also cause death of livestock through a number of direct and indirect mechanisms (Ahmad et al., 2000). As a result women have to be the poorest of the poor.

The unrecognized fisherwomen who are involved in the shrimp farm are also impacted. They also face economic losses due to heavy rainfall and subsequent flooding because too much rainfall causes overflow of water, eventually killing all the eggs that are about to hatch or the small fishes.. The ponds become inundated when flooding occurs and all the fishes escape from the ponds, resulting in large economic loss. Hence, women's livelihoods are more exposed to the vagaries of nature and the challenges posed by changes in precipitation patterns, and, because of their limited access to the labor market.

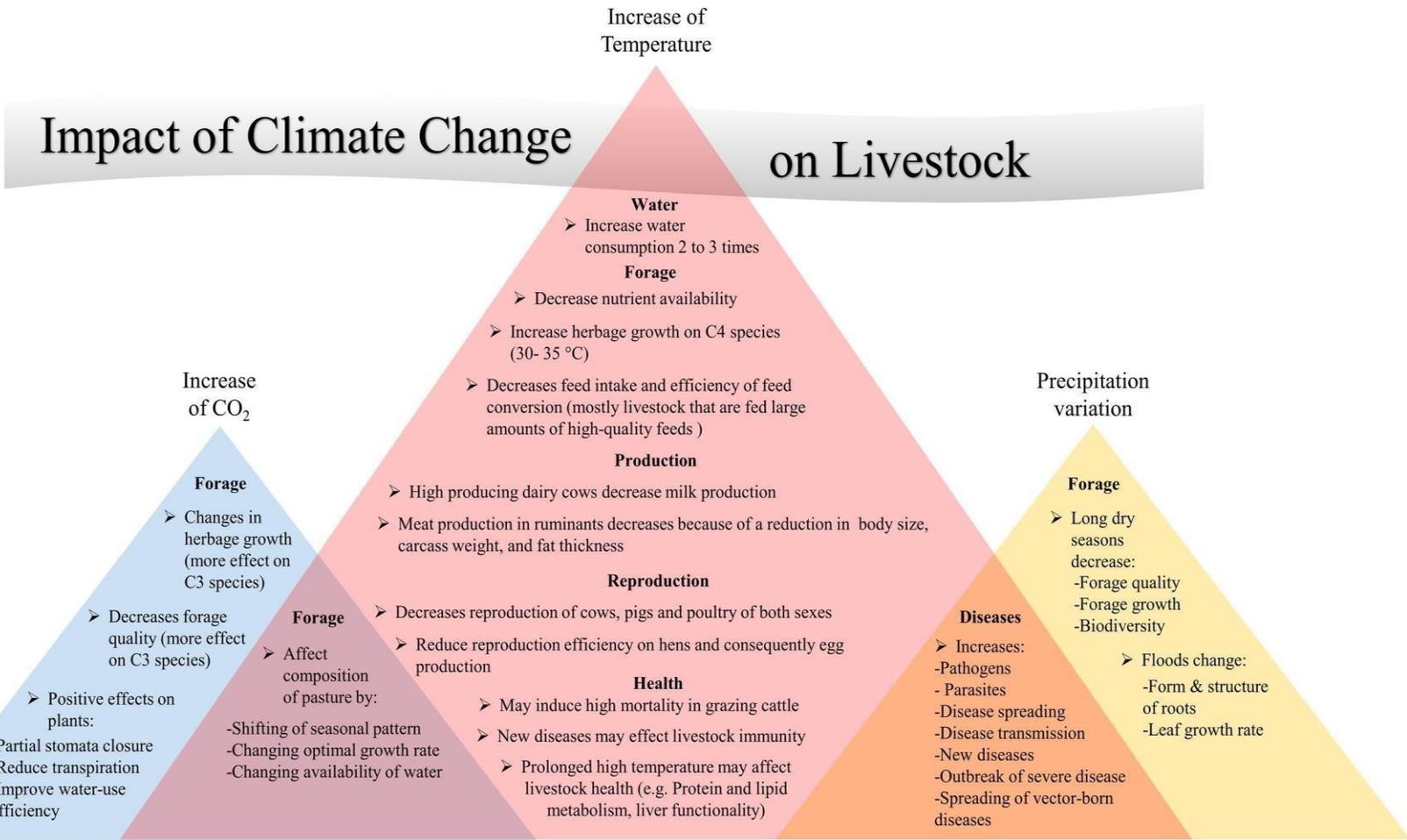


Figure15: Impacts of climate change on livestock (Rojas-Downing et al., 2017)



2.2.3 Climate change impact on Forests and biodiversity

- ✚ Many studies have found a direct relationship of climate change on biodiversity. It not only impacts on individuals, population, species, community, ecosystems but also the biome scales. Majority of the studies have indicated that there is an alarming consequence of climate change including rising extinction rates (Bellard et al., 2012).
- ✚ Climate change is also hampering hatchery production. Different climatic variables which include salinity, SLR, water temperature, flood, rainfall and drought had excess impacts on coastal ecosystem. Hence, it impacts on the overall catch of the species like prawn etc. In a recent study, it has been observed that prawn postlarvae fishing have been accompanied by the impacts of climate change in Bangladesh.
- ✚ Prawn (*Macrobrachium rosenbergii*) farming remains dependent on the capture of wildlife post larvae but the hatchery production is inadequate due to a number of climatic reasons (Ahmed et al., 2013).
- ✚ Bangladesh has got a wide diversity of ecosystems including mangrove forests at the extreme south of the country. The “Sundarbans” a World Heritage, is the largest Mangrove Forest in the world, comprising 57700 ha of land area along the Bay of Bengal (Dasgupta et al., 2019). The Sundarbans hosts a wide variety and number of species. However, these species are highly vulnerable to the impacts of climate change because the variation of temperature and rainfall patterns has an effect on how the species will breed and survive.
- ✚ Forests are great resources for the planet but they are at risk of climate change. Forests make an essential component to reaching the Paris Agreement targets. The following diagram shows the importance of forests to attaining the goals (WWF, n.d.)

FORESTS: KEY TO A SUCCESSFUL PARIS AGREEMENT

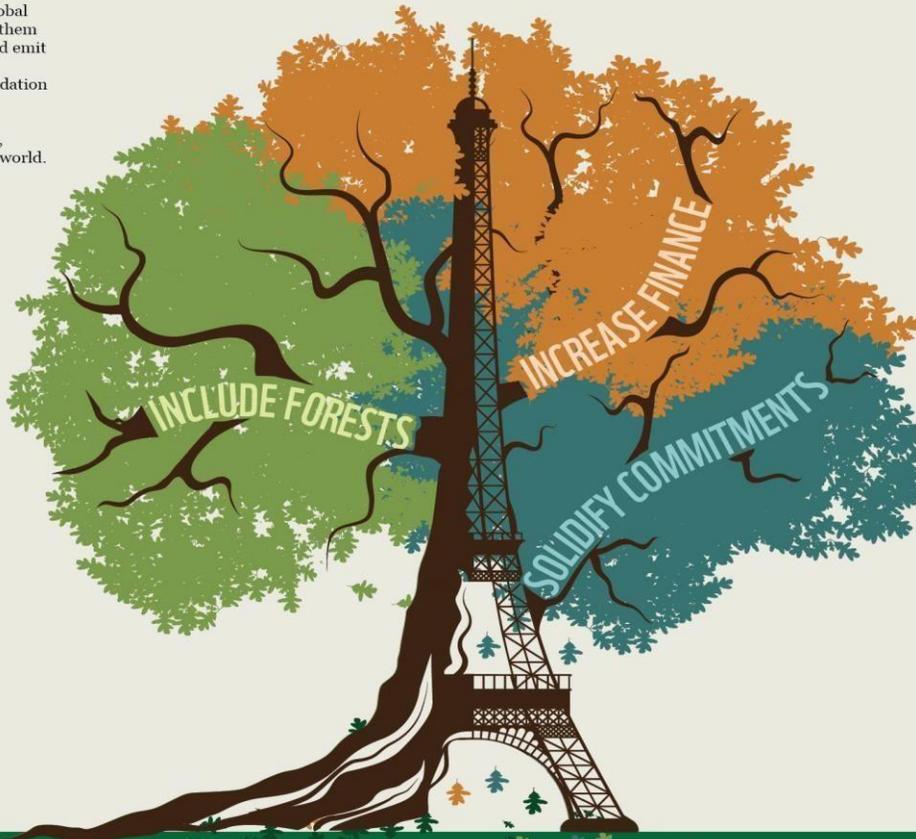
Forests are a key part of the global carbon cycle. The trees within them absorb carbon as they grow and emit it as they age or are cut down. Deforestation and forest degradation are the largest sources of CO₂ emissions after the combined emissions from all cars, trucks, trains, planes and ships in the world.

If current trends continue over the next 15 years, 11 of the world's most ecologically important forest landscapes will be lost.

We will not be able to close the emissions gap or address climate change if we do not include forests in the Paris agreement. Agricultural practices also must be included, as most of the world's deforestation is caused by expanding agriculture.



FOREST AND CLIMATE PROGRAMME



Adequate and predictable finance for reducing emissions from deforestation and degradation in developing countries (REDD+) is needed in the agreement if we want to achieve the broader mitigation and sustainable development goals.

Money is needed for a variety of approaches, such as properly managing protected areas, increasing enforcement to prevent illegal logging and strengthening forest governance.

Funding for all forest conservation initiatives, including REDD+, must be allocated and used in a way that safeguards the rights of indigenous people and local communities to their land and way of life.

The public sector plays a leading role in reducing deforestation and degradation. But this sector cannot solve the issue alone, especially at the pace that is needed.

Companies in the private sector must also play a role by bringing their "deforestation-free" commitments – most which are about improving the way they produce and source food and commodities – to life in a fair and effective manner.

Forest conservation strategies created and implemented by national governments via REDD+ can lay the foundation for the private sector to meet its commitments.

2.2.4 Climate change impact on Water, Sanitation and Hygiene (WASH)

Water is inextricably linked to climate change. Extreme events can destroy water supplies, toilets and other sanitation facilities which can create massive contamination of water, putting the lives of many at risk. Without clean water there could be diseases like diarrhea, which already kills over 800 under-5 children in a day (UNICEF, 2016).

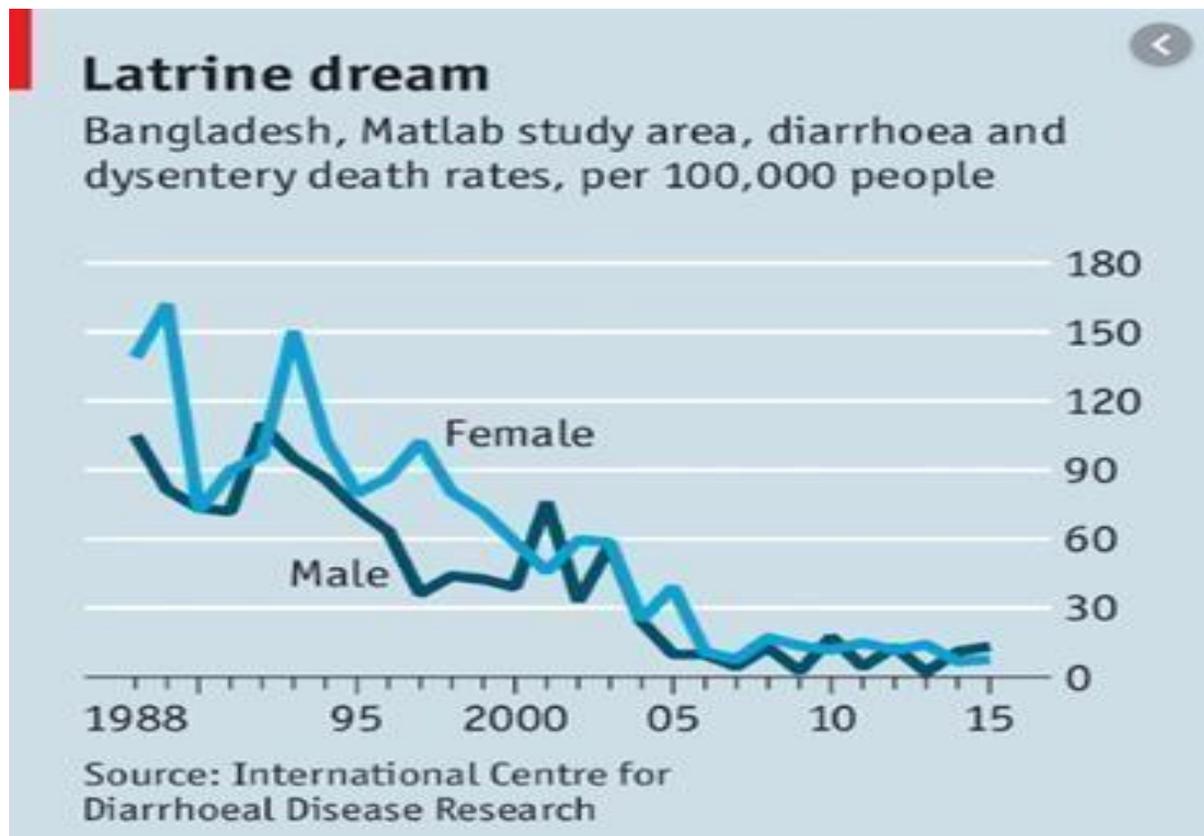


Figure16: Statistical review showing the deaths per 100,000 people from 1988 to 2015
(The Economist, 2018)

- According to the Daily Star (2017), 45000 children die due to this disease every year which is extremely alarming. Water contamination and lack of safe and proper water, sanitation and hygiene facilities only exacerbate the situation. However, according to The Economist (2018), Bangladesh has shown significant improvement in reducing the onsets of diarrhea. However, there are many other diseases that are caused by climate change.



Figure 17 : Some other diseases that are influenced by climate change (Sanofi, n.d.¹)

- Climate change affects the human capital of women and men differently in the form of mortality and in terms of their physical and psychological health, some of which is indirectly related to food insecurity. A more severe climate impact on health may occur for women and children due to the indirect effects of malnutrition, which make them additionally susceptible to diseases—and this may be especially evident in poor developing countries.
- Water and fuel shortages caused directly and indirectly by climate change pose considerable time and labor burdens for women, more so than for men. The longer the women spend searching for these natural resources, the less time and energy they likely have for performing other household tasks, indicating an increase in time poverty.

¹ <https://www.sanofi.com/en/our-responsibility/climate-change-and-human-health-everyones-concern>

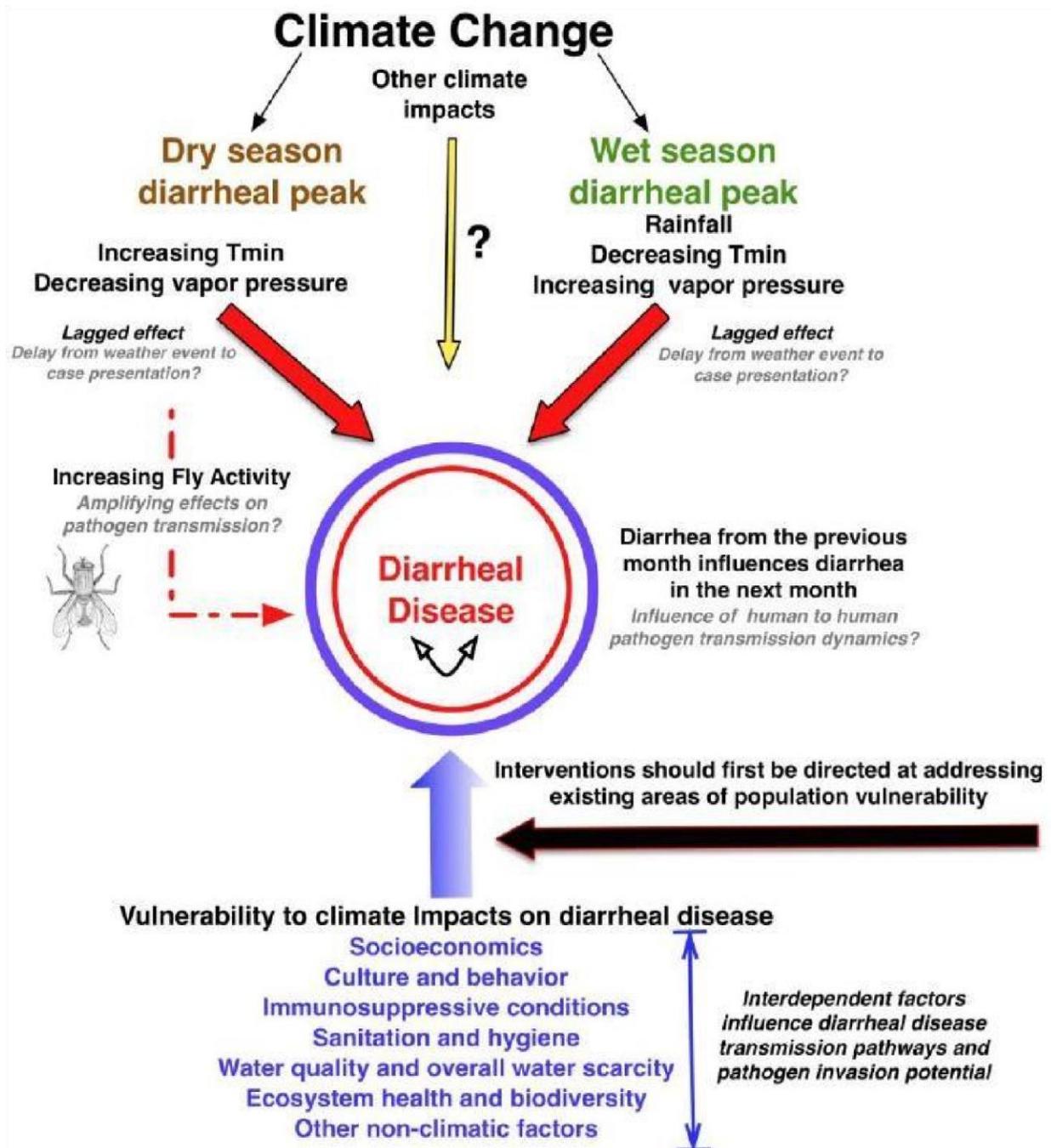


Figure18: Climate change and other impacts and the relationship of it with diarrheal diseases (Alexander, 2013)

2.2.5 Impact of women’s livelihood due to climate change

Impact analysis of gender and climate

Vulnerability to the impacts of climate change depends on a number of factors including gender, age, socioeconomic status, caste and disability. Poor individuals, those with disabilities and those belonging to particular caste groups are more vulnerable to climate change impacts as their coping strategies may be limited both by social norms and stigma, but also due to issues of mobility, knowledge and lack of

money. It is generally acknowledged that women and girls face a heavier burden of domestic work as a result of resource shortages (food, water and firewood) caused by climate change. They are made to walk longer distances to fetch these resources and may as a result face increased security issues including harassment and sexual violence. Increasing workloads may also result in families withdrawing daughters from schools to help out at home, reducing their future opportunities.

In addition, crop failure as a result of sporadic rainfall may result in the selective malnourishment or starvation of girls and women, especially in cultures where men are used to eating before women and girls. Selective malnourishment of 'less important' members of the family can also be used as a strategy to ensure the family's survival (Saha, Ali, Haque, & Jonsson, 2014).

Key areas of gender-based inequalities

- ✚ Land rights
- ✚ Division of labor
- ✚ Existing knowledge systems and skills regarding CCA
- ✚ Power and decision-making
- ✚ Embedded inequalities in policies and institutions, both formal and informal Perceptions of risk and resilience.

Climate change tends to exacerbate existing gender inequalities and gender inequalities lead more women to face larger harmful impacts. It is also true that women are just not victims of climate change but are also active agents of change as they possess skills and knowledge which are absolutely unique in nature (Saha, Ali, Haque, & Jonsson, 2014). Hence, it is very important to understand the risk and climate change impacts on both women and men, especially in attaining global goals, like the Sustainable Development Goals (SDGs).

Module 3: Climate change vulnerabilities, adaptation and mitigation

Aim of the module: The ability of the CSO to know the theories, concepts and strategies of adaptation and mitigation, along with practical examples of adaptation and mitigation technologies at grass-root levels.

Learning outcomes: By the end of Module 3, the participants will be able to understand and use the basic ideas and concepts of climate change. Participants are expected to be use jargons and climate change terminologies in communication exchange and be able to relate real-life observations with climate change science. Hence, participants' perception on climate change will be strengthened.

Sections of the module:

3.1 Basic Concept, Theory and Knowledge on Climate Change, adaptation, and mitigation (from gender lens)

3.1.1 Types, strategies, approaches and examples

3.1.2 Adaptation and examples of adaptation technologies and practices in Bangladesh

3.1.3 Mitigation and Examples of mitigation technologies and practices in Bangladesh

3.2 Climate Change vulnerability assessment

3.2.1 Tools and Techniques for vulnerability assessment at the community level

3.2.2 Group exercise and assessing vulnerability of a climate prone village

Methodology

Title	Slide and learning outcome	Time (mins)	Activity	Learning Methods (on site learning)	Resources
Learning Outcomes	2 slides	10	Introduce to the aim of the module and learning outcomes	Discussion with slides	Laptop and projector
Power point presentation on Basic Concept, Theory and Knowledge on Climate Change, adaptation, and mitigation (from gender lens)	10slides Effectively able to understand the basic ideas and concepts and use jargons of climate change.	30	Introduce to the types, strategies, approaches and examples of CC and adaptation and mitigation technologies and practices in Bangladesh and coping strategies and adaptation methods by women	Discussion with slides, brainstorming and matching texts with appropriate terminology	Laptop and projector, Flipchart, Mark
Power point presentation on Climate Change vulnerability assessment tools	6 slides Effectively able to understand climate change vulnerability assessment tools.	20	Introduce to tools and techniques for vulnerability assessment at the community level	Discussion with slides and interactive discussion	Laptop, projector, flip chart and marker Pen,
Group exercise and assessing vulnerability of a climate prone village	2-4 slides Enhanced the understanding level and able to use Climate Change vulnerability assessment tools	80	Group exercise on Climate Change Vulnerability Assessment tool	Presentation with slides and group exercise (5 teams including 4 members and 1 team leader)	Laptop, projector, flip chart and marker Pen,

3.1 Basic concept, theory and knowledge on climate change, adaptation, and mitigation

Adaptation to climate change denotes to doing things in a different way, it does not mean doing entirely new things but rather decisively modifying development interventions. Adaptation measure may be compared with baseline of 'resulting in becoming losses and not making use of opportunities doing nothing' (CDMP 2014).

On the other hand, mitigation denotes to lessening or reducing the emissions of greenhouse gases so that it does not take the world to the level where it has to adapt with uncalled consequences. This section will elaborate types, strategies, approaches and examples of adaptation and mitigation along with the technologies associated with it.

3.1.1 Types, strategies, approaches and examples

Mitigation: Mitigation is one of the major approaches recently practiced to respond to climate change.

The following table shows the sectors of mitigation and the corresponding strategies.

Table1: Mitigation Measures /Strategies (CDMP, 2014)

Sectors	Migration measures/Strategies
Energy Supply	Improved supply and distribution efficiency; fuel switching from coal to gas, combined cycle gas turbine (CCGT), nuclear power, renewable heat and power (hydropower, solar, wind, geothermal and bio-energy); combined heat and power, improved cooking stove; biogas.
Transport	More fuel-efficient vehicles; hybrid vehicles; cleaner diesel vehicles; bio-fuels; modal shift from transport to rail and water transport, shift from private to public transport; non –motorized transport (cycling, walking); land use and transport planning.
Buildings	Efficient lighting and day lighting; more efficient electrical appliance and heating and cooling devices; improved cook stoves, improved insulation; passive and active solar design for heating and cooling; alternative refrigeration fluids, recovery and recycling of fluorinated gasses; prudent use of air conditioner (AC).
Recycle	Generate as little trash as possible because trash in landfill sites emits large quantities of methane and if burned, carbon dioxide is released; recycle cans, bottles, plastic bags and newspapers.
Communication	Use ICT facilities in work to reduce movement and visits that require less transport and thus less use of transport fuel, oils; e-learning, mobile /e banking; electronic instead of paper-based documentation.
Agriculture	Use of less chemicals (fertilizer, pesticides etc.); use more organic fertilizers; use more manual labor; practice less/zero tillage; promote organic and integrated farming;

Adaptation: Adaptation is another major approach that is lately practiced to response to climate change. It increases the resilience and coping capacity of the sector (Saha, S.Ali, M.Haque, N.Jonsson, G., 2014). The following table shows the sectors of adaptation and the corresponding strategies.

Table 2: Adaptation Coping strategies/capacities (CDMP, 2014)

Sectors	Adaptation Coping Strategies
Agriculture	Introduce tolerant/climate resilient crop varieties, adjustment of planning dates; crop rotation and coping patterns; improved/ resilient technology/ technical options; integrated farming; mixed cropping; improved land management. Erosion control and soil protection through tree planting; off arm livelihood options with value chain benefits.
Water	Expanded rainwater harvesting, water storage and conservation techniques; water re- use; desalination; water use and irrigation efficiency.
Human Health	Healthy action plans; emergency, medical services, improved climate-sensitive disease surveillance and control, safe water and improved sanitation and latrines; health insurance.
Infrastructure/Settlement	Raise house plinth; raise the ground of institutions, community places, relocation; seawalls and storm surge barriers; dune reinforcement; land acquisition and creation of marshlands/wetlands as buffer against sea level rise and flooding; protection of existing natural barriers; establishing green belt or protection barriers.

Adaptation takes place every day around us to adjust to the changes. This is called autonomous adaptation. Adaptive capacity, on the other hand, refers to the ability of a system to adjust to climate change to moderate the potential risks and damages and to take advantage of opportunities in order to cope with the consequences Smit &Wandel (2006). The following table shows the types of adaptation:

Strategy	Examples
Share losses	
Modify Threat	Support from extended family. insurance or social programmes
Prevent Impacts	
Change use	Change in the management of dykes and dams to modify food patterns
Change location	
Research	Redistribution of water to avoid scarcity
Change behavior and rules	Change crops or soil management
	Relocation of settlements or economic activities
	Improved seed research
	Rainwater harvesting; conservation

Table 3: Types of adaptation (CDMP, 2014)

Adaptation Opportunities

- Policy
- Infrastructure
- Capacity development
- Research
- Good practices

The following table shows who are the key actors in the relationship and how they act.

Government	Their responsibilities are setting rules and regulations for public assets, public services, social protections, preventing conflict and managing migration.
Individuals	Their focus is on household preparedness, autonomous adaptation.
Private sector	Their task is to integrate climate risk into project design and services (climate resilient investment)
International coordination	It is required to have financial responsibility, resilient ODA, capacity development.

Table 4: Who acts and how (CDMP, 2014)

Adaptation:

Adaptation is a response to global warming (also known as "climate change" or "anthropogenic climate change").

According to IPCC (2001), adaptation can be defined as "adjustment in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts".¹

Mitigation:

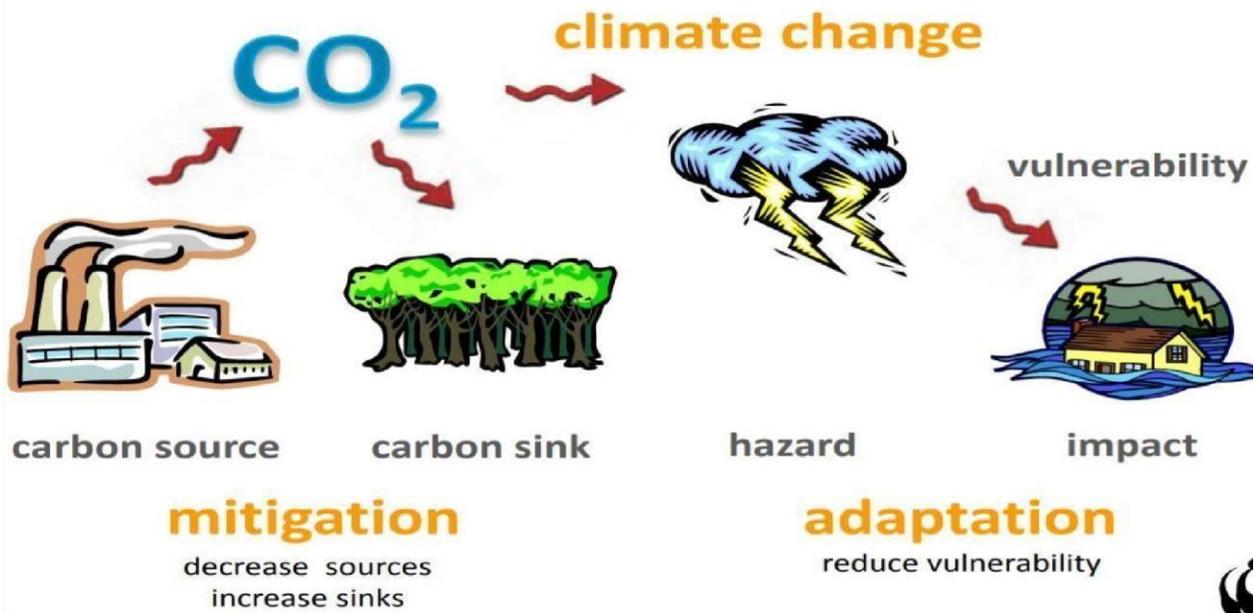
Mitigation is an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases.

According to PCC (2007), "Mitigation is the technological change and substitution that reduce resource inputs and emissions per unit of output. Although several social, economic and technological policies would produce an emission reduction, with respect to climate change, mitigation means implementing policies to reduce GHG emissions and enhance sinks."²

¹ IPCC. 2001. Third Assessment Report (TAR).

² IPCC (2014). ["Glossary"](#) (PDF). Intergovernmental Panel on Climate Change.

Adaptation or Mitigation?



Two fundamental measures to address Climate Change: Adaptation and Mitigation

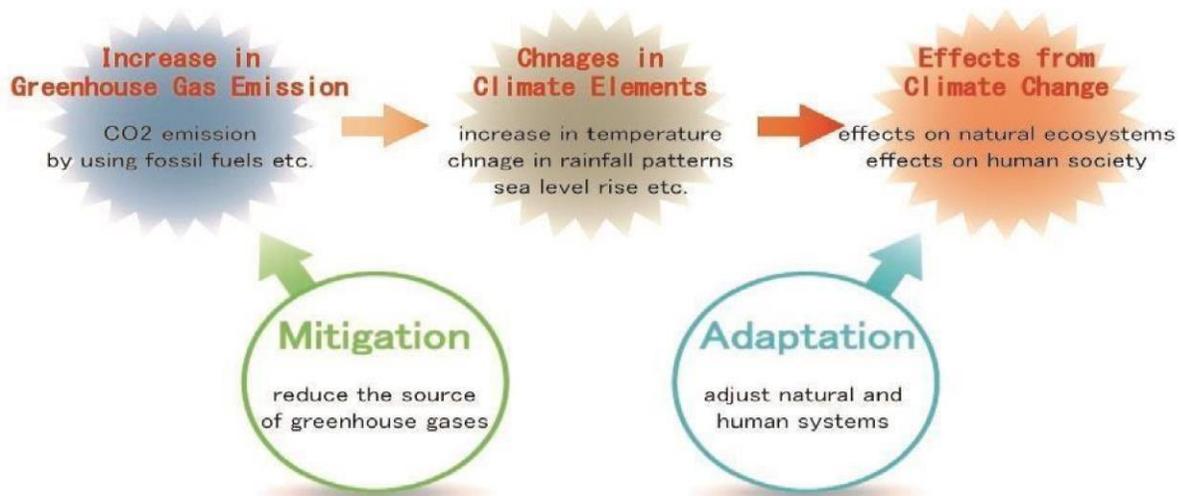


Figure 1. Measures to address climate change adaptation and mitigation (MOE, 2001)

The changing conditions caused by climate change make heavy calls on women's adaptive abilities. According to the IPCC, the ability to adapt to climate-induced changes is a function of several factors including wealth, technology, information, skills, infrastructure, institutions, equity, and empowerment. On the household level this translates into control over land, money, credit, low dependency ratios, good health and personal mobility, household entitlements and food security, secure housing in safe locations, and freedom from violence (Lambrou & Piana, 2006). Women's involvement in agricultural production and their dependency on biomass energy mean that they possess great amounts of indigenous knowledge as well as untapped resources and skills that make their participation in discussions about adaptation to climate change absolutely necessary, however neglected it might be. This knowledge needs to be recognized (UNDP, 2009), and it furthermore exemplifies that women are not without means when it comes to handling climate change and often exhibit surprising resilience.

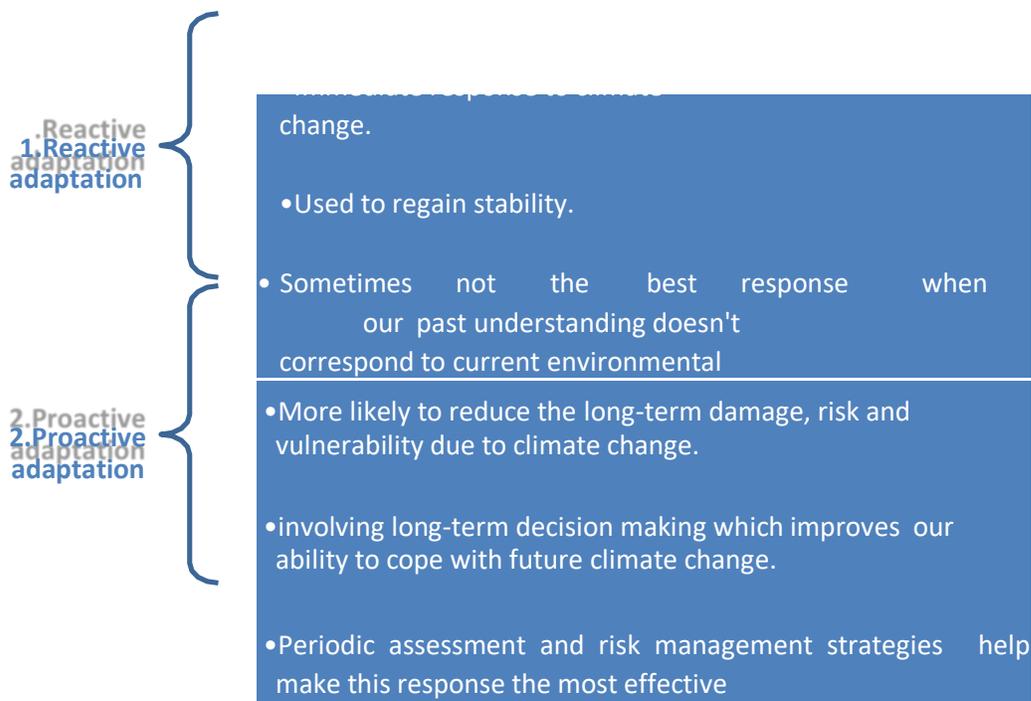


Image 1: Women's involvement in agricultural production (Credit-IUCN¹)

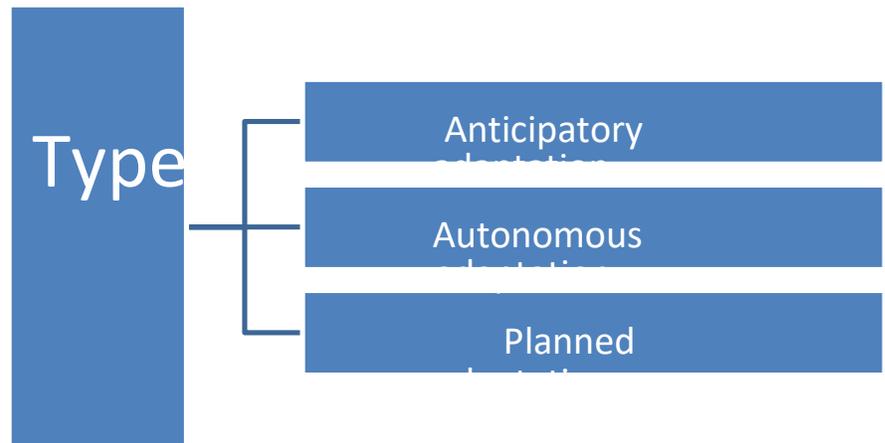
¹ <https://www.iucn.org/sites/dev/files/import/downloads/gender.pdf>

At the same time, women, being the primary natural resource managers, are responsible for a great deal of the emissions of the developing world. Due to the lack of recognition of women's stake in agricultural production and the duties performed by women in general, technological innovations and the like have often been presented to men rather than women, resulting in implementation failure. In order to decrease the emissions of the developing world, it is important to pay regard to socio-economical conditions and take factors such as gender into consideration. It is of course necessary to educate about and spread more sustainable technology in the developing world, it is vital that demands about mitigation do not weigh too heavily on people whose living conditions are already badly constrained (Wamukonya, Njeri and Margaret Skutsch, 2001).

Types of Adaptation (BCAS, 2018)



According to IPCC AR4; there are three types of Adaptation



3.1.2 Adaptation and examples of adaptation technologies and practices in Bangladesh

- There are a number of technologies for adaptation and mitigation through projects in the rural sectors. It is aimed to enhance the livelihood opportunities for underprivileged people and reduce the vulnerability of those people.
- Distribution of different types of climate resilient varieties of seeds and modern cultivation methods are priority intervention by the projects.
- Saline, drought and flood tolerant rice varieties are being increased. High Yielding varieties are being introduced and various climate tolerant fruit plants are being used. Next, many important projects focus on water and sanitation.
- For ensuring safe water supply many water related technologies are being implemented. Such as installing deep tube well, rain water harvesting system, water treatment plant, Tara Tube well/Pump manage aquifer recharge etc. water technologies ensure safe drinking water.
- Technologies for sanitation like septic tank latrine, ring slab, ring drug well, sato-pan latrine, ring slab latrine, community latrine etc. are being used to reduce the vulnerability to water borne diseases and improve hygiene. Wash blocks have been implemented for both male and female.
- Environmental sustainability is being ensured through increasing the usage of these different technologies.

Adaptation technologies have been divided in “hardware” and “software”. Hardware include things like capital goods and equipment like droughtresistant crops, early warning systems or sea walls, or “software” such as capacity, knowledge and processes like energy-efficient practices and know-how to operate machinery (UNFCCC 2015). Soft and hard technologies can also be combined, such as an early warning systems that combine hard measuring devices with soft knowledge and skills that can raise awareness and stimulate appropriate action (UNFCCC 2013).

Sector	Hardware	Software	Orgware
Agriculture	Selection of crop or crop variety	Farming practices research on new varieties	Local institutions
Water resources and hydrology	Ponds, wells, reservoirs rainwater harvesting	Increase water use efficiency and recycling	Water user associations water pricing
Infrastructure and settlements including coastal zones	Dykes, seawalls, tidal barriers, breakwaters	Development planning in exposed areas	Building codes, early warning systems, insurance

Table 5: Hardware, software and orgware services for three sectors (Haq and Wright, 2013).

The table above illustrates the examples of hardware, software and orgware of climate change (Source: Haq and Wright, 2013). BCAS (2017) conducted a study in five (5) districts in Bangladesh and the following table summarizes the adaptation technologies which are in place to tackle climate change.

Table 6: Sector wise major adaptation technologies in some districts in Bangladesh (BCAS 2017)

Sector	Patuakhali	Satkhira	Gaibandha	Chapi-Nawabgonj	Sirajgonj	Common Technology
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Agriculture

- *Climate resilient rice, and wheat variety
- Short duration high yielding crops variety
- Zinc rice variety
- Power tiller, reaper machine, plastic containers, spray machine, Alternate Wetting and Drying (AWD) etc.
- Bio-Fertilizer • Biochar
- Bio-Fertilizer
- Vermicomposting
- Bio-pesticides
- Integrated pest management
- *Climate resilient rice, and wheat variety
- Short duration high yielding crops • Short duration variety high yielding
- Power tiller, reaper crops variety machine, plastic containers, low reaper machine, leaf pump, fita plastic containers, pipe, spray spray machine, machine, Alternate Wetting and Drying (AWD)
- Bio-Fertilizer • Bio-Fertilizer
- Bio-pesticides
- Vermicomposting
- Integrated pest management
- *Climate resilient rice, wheat and Variety
- Short duration high yielding crops variety
- Power tiller, reaper, combine harvester and repair, machine, plastic containers for seed storage, spray machine, treasure, Alternate Wetting and Drying (AWD) pipe
- Bio-Fertilizer and vermicomposting
- solar and Electric pump with underground pipeline
- Bio-pesticides
- Dry seeds bed
- Drip Irrigation by
- Climate resilient rice, wheat and maize variety
- Short duration high yielding crops variety
- Power tiller, reaper machine, plastic containers for seed storage, thresher spray machine, low leaf pump, Alternate Wetting and Drying (AWD) pipe
- Bio-Fertilizer and vermicomposting
- Hand shower
- Integrated pest management
- *Climate resilient rice, and wheat variety
- Short duration high yielding crops variety
- Power tiller, reaper machine, plastic containers for seed storage, spray machine etc.
- Bio-Fertilizer
- Bio-pesticides
- Integrated pest management
- Vermicomposting

				<ul style="list-style-type: none"> solar system FARO method Integrated pest management 	<ul style="list-style-type: none"> Bio-pesticides and Integrated pest management 	
WASH	<ul style="list-style-type: none"> Rain Water Harvesting System Water treatment plant Pond Sand Filter Deep Tube well Ring Slab Latrine Septic tank latrine Wash block 	<ul style="list-style-type: none"> Deep Tube well Rain Water Harvesting System Septic tank Reverse latrine Double Platform Desalination Rain Water plant Pond Sand Filter Bio Sand Filter Ring slab latrine Sceptic tank Wash block Rain Water Harvesting WASH Block 	<ul style="list-style-type: none"> Shallow Tube well with an overhead Ring slab latrine tank (Pipelines) Tara 6th pump Ring Slab Latrine Septic tank latrine Shallow Tube well Tara Pump Deep Tube well Ring Well Very Shallow latrine Tubewell (VSST) 	<ul style="list-style-type: none"> submergible pump Deep set pump Ring Well Harvesting WASH Block Eco-San Latrine Shrouded 	<ul style="list-style-type: none"> Shallow tube well Tara Tube well Ring Well Rain Water Harvesting WASH Block at primary school Septic tank latrine Ring slab 	<ul style="list-style-type: none"> Rain Water Harvesting Ring slab Septic tank latrine Wash Block Ring slab

Energy	• Solar power system	• Solar power system	• Bandhu Chula	• Improved Cooking system	• Solar power	• Solar power
	• Bandhu Chula	• Bandhu Chula	• Solar power Stove system	• Bio Gas	• Bandhu Chula	• Bandhu Chula
Infrastructure	• Street Solar lamp	• Street Solar lamp	• Street Solar lamp	• Street Solar lamp	• Street Solar lamp	• Street Solar lamp
			• Solar power system			
			• Bandhu Chula			
	• Plinth raising	• Plinth raising	• Plinth Raising	• Herring-Bone-Bond (HBB Road)	• Plinth raising	• Protected wall
	• concrete basement	• concrete basement	• Herring-Bone-Bond (HBB Road)	• Ring and Box Culvert	• Flood Shelter	• Sluice gate
	• Cyclone Shelter	• Cyclone Shelter	• Ring and Box Culvert	• Bridge Construction	• Protected wall	• Ring and Box Culvert
	• Sluice gate	• Sluice gate	• Ring and Box Culvert	• drainage system	• Sluice gate	• Herring-Bone-Bond (HBB Road)
	• Ring and box Culvert closure	• Ring and box Culvert closure	• Bridge	• Pala siting	• Ring and Box Culvert	• Herring-Bone-Bond (HBB Road)
	□ concrete block	□ concrete block	• drainage system	• Dam	• concrete block system	• Pala siting
	• Protected wall for embankment	• Protected wall for embankment	• Pala siting	• Manage Aquifer recharge	• Herring-Bone-Bond (HBB Road)	
	• Pala siting	• Pala siting		• sluice gate	• Pala siting	
				• Protection wall		

Table 6: Sector wise Major technologies in study areas (BCAS 2017)

Climate change technologies do also cover crosscutting topics, such as integrating policies, national innovation systems; technology needs assessment and planning, financing and investment, collaboration with the private sector, and intellectual property management (CTCN, 2016).



UNFCCC (2013) found that in their Technical Needs Assessments (TNA's), several Parties prioritized indigenous technologies that could be applied for adaptation, such as traditional designs for housing, bunds, levees, dikes and mangrove plantations.

Examples- Technologies for adaptation in coastal zones

Hardware	Software	Indigenous
dykes, seawalls, tidal barriers, detached breakwaters	Soft structures – dune or wetland restoration or creation, beach nourishment	indigenous options walls of wood, stone or coconut leaf, afforestation

Table 7: The hardware ,software technologies with indigenous knowledge in the context of coastal area.



3.1.3 Mitigation and examples of mitigation technologies and practices in Bangladesh

Mitigation Project is the initiative of using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behavior. Mitigation technologies include solar energy for lighting and airing during summer season. In Bangladesh, these are seen in hard-to-reach (HTR) areas; specifically in the areas where graded electricity is not available. Solar home system provides sufficient energy at low cost and in environment-friendly way. Due to unavailability or less availability of cooking fuel, improved cooking stoves have become a fashion in many households in Bangladesh (BCAS 2017). This technology requires less amount of fuel and emits less amount of carbon to air. Many of pond sand filters (PSF) are facilitated with solar energy in coastal areas like Patuakhali and Satkhira. In Chapai Nababganj, low-lift pumps are powered with solar system to supplement water for irrigation. These are some examples of mitigation technologies in Bangladesh. The following table shows sector wise major technologies in mitigation sector according to a study by BCAS (2017)

Table 7: Sector wise major mitigation technologies in some districts in Bangladesh (BCAS 2017)

Sector	Patuakhali	Satkhira	Gaibandha	Chapi-Nawabgonj	Sirajgonj	Common Technology
Energy	<ul style="list-style-type: none"> • Solar power system • Bandhu Chula • Street lamp 	<ul style="list-style-type: none"> • Solar power system • Bandhu Chula • Solar Chula • Street Solar lamp 	<ul style="list-style-type: none"> • Bandhu Chula • Solar power system • Street Solar lamp 	<ul style="list-style-type: none"> • Improved Cooking Stove • Bio Gas • Street Solar lamp • Solar power system • Bandhu Chula 	<ul style="list-style-type: none"> • Solar power system • Bandhu Chula • Street Solar lamp 	<ul style="list-style-type: none"> • Solar power system • Bandhu Chula • Street Solar lamp

In Bangladesh, many rural houses are facilitated with solar energy for lighting and airing during summer season, in hard-to-reach (HTR) areas; specifically in the areas where graded electricity is not available

(BCAS, 2017). Solar home system provides sufficient energy at low cost and in environment-friendly way.



Image 2: Woman installing solar panel on her house roof (BD Reports, 2015)

Due to unavailability or less availability of cooking fuel, improved cooking stoves have become a fashion in many households. This technology requires less amount of fuel and emits less amount of carbon to air. Many of pond sand filters (PSF) are facilitated with solar energy in coastal areas like Patuakhali and Satkhira. In ChapaiNababganj, low-lift pumps are powered with solar system to supplement water for irrigation. There is also the use of solar panels in many houses in rural sectors.

COPING STRATEGIES AND ADAPTATION METHODS BY WOMEN

The following are some of the micro-strategies used by poor women in Bangladesh to cope with frequent disasters:

Avoidance or Prevention Strategies:

Management and Recovery Strategies

Predicting and preparing for disasters:

In the flood-prone areas, vulnerable people have used their own science and arts to predict floods. This traditional tool is becoming of little help, however, due to the changing nature of disasters, leaving the community with no choice but to rely on whatever early warning system is in place.

Protecting houses and homesteads:

Before the flood or cyclone season, families try to make their houses more resilient to disasters by reinforcing walls and roofs with locally available resources, increasing the plinth level of households and elevating the level of cow sheds. More financially secure households raise the level of tube wells.

Storing essential items:

Women preserve fuels, matches, dry food (such as rice, peas, puffed rice, flattened rice and molasses), ropes and medicine at home and prepare portable mud stoves for future use. Women often collect firewood to store in dry places for later use. Women also store fodder for domestic animals, seeds, food, harvest, blankets and valuables on machas (high wood or bamboo structures for storage), which are also used to protect goats and poultry from flood water.

Many women store cooking utensils, productive assets (i.e., ploughs, fishing nets) and other valuables under the soil to protect them from being washed away by cyclones.

Safety of family members:

During disasters, women must constantly look after children, elderly and disabled family members, and animals to ensure their safety. In flood-prone areas, women prepare elevated platforms for family members with disabilities, using the chouki (traditional bed) and bamboo. Often, to ensure that young children remain safe and are not carried off by flood water, parents construct a 'fence-in' to keep toddlers in one place.

Ensuring food security:

When a household faces a food crisis during or after a disaster, women are responsible for adjusting household food consumption by changing the type of food eaten (instead of consuming rice, for example, they resort to alternate foodstuffs such as kaisha or kolmi, local vegetation,) or by consuming less.

Household works:

Workload distribution within the family disproportionately affects women during a disaster. When husbands or male members become unemployed, daily work for women increases even more as they have to manage resources, feed the family and look after the elderly.

Managing finance by borrowing credit, selling and mortgaging assets:

In order to meet household financial needs, assets such as livestock, poultry and boats are often sold. Selling other valuables, mortgaging, or borrowing against assets, or borrowing from neighbors are other common strategies for survival. Many women in rural

Educating children:

Educating the younger generations about how to protect themselves has been a key strategy employed by households living in disaster areas. Teaching life-saving skills such as swimming and understanding cyclone signals are examples of how parents prepare their children.

No formal mechanism for teaching children disaster preparedness exists, however, children usually learn from family discussions or meal-time conversations. Various other activities such as animal rearing, grazing and taking part in plantation work with their parents, during which children have an opportunity to learn their parents' indigenous knowledge, are additional examples.

areas are now part of microfinance organizations, using their memberships to access loans.

Migration and alternative employment:

In many cases, women migrate as an adaptation strategy. Female migration contributes a major share of the informal urban labor market. The major activities that employ women in urban areas include serving as domestic help, brick breaking, sewing, jute bag making, ash selling, fish and vegetable vending, selling rice cakes and working in the RMG industry.

For earning, they sometimes compromise with their values and dignity (i.e., begging). Women who have alternative livelihood options prefer not to migrate as laborers; households that have boats, for example, earn incomes by ferrying people.

Table 8: Coping strategies and adaptation methods by women.¹

¹ <https://www.iucn.org/sites/dev/files/import/downloads/gender.pdf>

3.2 Climate change vulnerability assessment

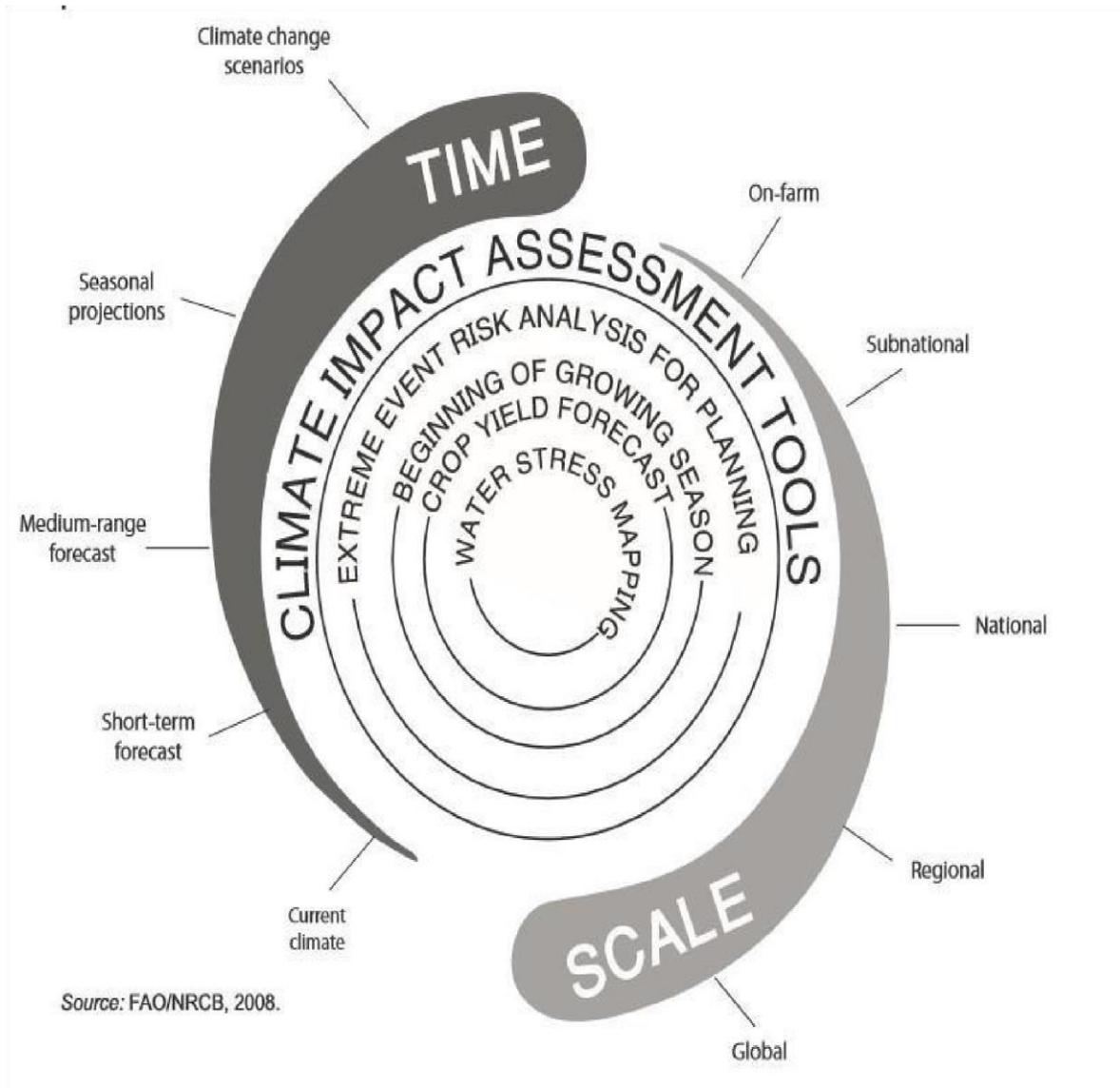


Image3: Diagram that illustrates the methods and tools for assessing climate change impacts for different time periods and at various scales (FAO/NRCB, 2008)

Community Risk Assessment (CRA)

WHY?

-To identify area-wise intensity and magnitude of risk and vulnerability to the communities

Assessment of risks and vulnerabilities

Development of Risk Reduction Action Plan (RRAP)



Target Stakeholders of Community Risk Assessment (CRA) programme

Stakeholder	Vulnerable people
Primary Stakeholder	<ul style="list-style-type: none"> -Farmer/fisherman -Landless -Old -Physically/mentally disabled and -Female
Secondary Stakeholder	<ul style="list-style-type: none"> -Members of union Disaster management committee (UDMC) -Local elite people and intellectuals, -Professionals, Religious leaders, Teachers, -Members or employees of NGO

Table 9: Table illustrates the target stakeholders and vulnerable groups for community risk assessment programme

The activities of CRA are divided into two major sections:

Process of CRA

1. Pre-CA

2. CRA

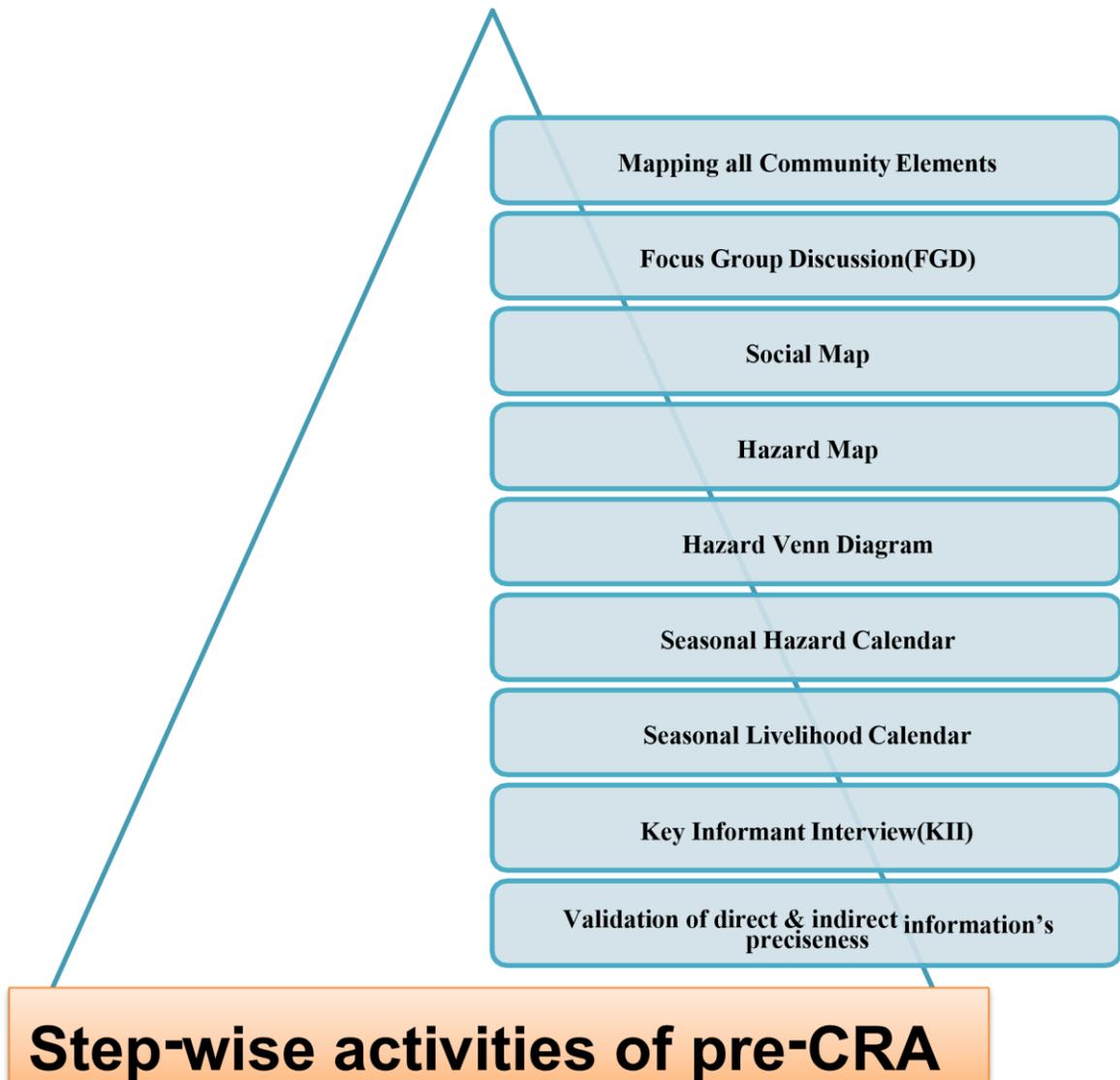


Table 10:the step wise activities of pre-community risk assessment program.

Social Hazard Calendar- An Example

Seasonal Calendar of Hazard with time, duration, Intensity and magnitude

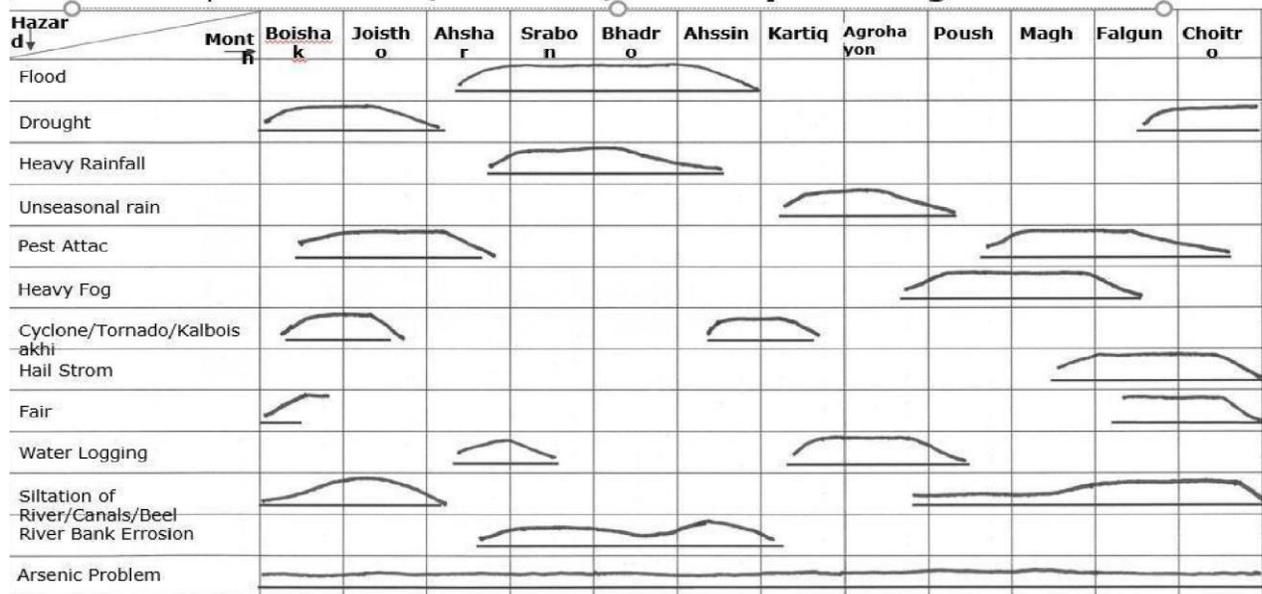


Table 11: Table illustrates the seasonal calendar of hazards to identify the exact time, duration, intensity and magnitude. Seasonal

Livelihood Calendar

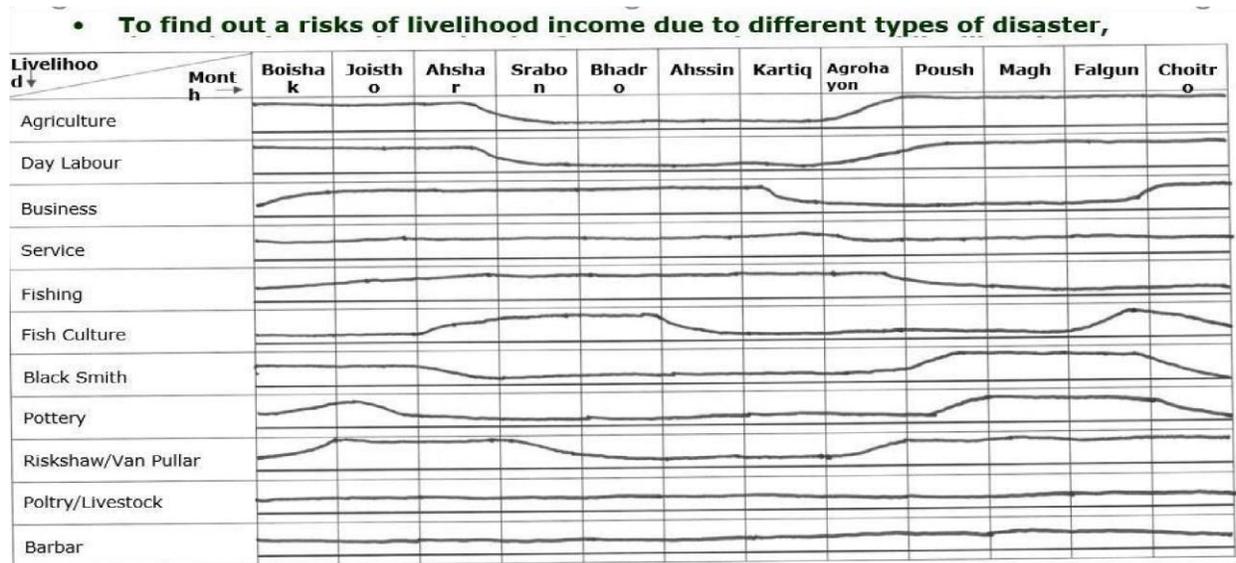


Table 12: Table illustrates the people engagement in different types of livelihood activities including agriculture, day laborer, business, driving rickshaw van and so on.

Identifying vulnerable community

Sector	Subsector	Existing hazards												
		River erosion	Cyclone	Flood	Drought	Waterlogged due to excess rainfall	Attack of insect	Dense fog	Hailstorm	Filling up Canal	Excess of rainfall	Cold wave	Arsenic	Conflagration
Agriculture	Agricultural land	+	-	-	-	-	-	-	-	+	+	+	-	-
	Growing crops (paddy, jute, chili, potato)	+	+	+	+	+	+	-	+	+	+	+	-	-
	Seedling	+	+	+	+	+	+	+	+	-	+	+	-	-
	Green crops	-	-	-	+	+	+	+	+	-	+	+	-	-
Infrastructures	House	+	+	+	-	-	+	-	-	-	+	-	-	-
	Road	+	+	+	-	-	-	-	-	-	+	-	-	+
	Connect of electricity	-	+	+	-	-	-	-	-	-	+	-	-	+
	Educational institutes	+	+	+	-	-	-	-	-	-	-	-	-	+
	Bazar	+	+	+	-	-	-	-	-	-	-	-	-	+
Health	Attack of diseases	-	-	+	+	+	-	+	-	-	-	+	+	-
	treatment	-	+	+	-	-	-	+	-	-	-	+	+	-
livestock	Cow, goat	+	+	+	+	+	-	+	-	-	+	+	-	-
	Duck, hen	+	+	+	+	-	-	+	-	-	-	+	-	-
	Crisis of food	+	+	+	+	+	+	+	+	+	+	+	-	-
Fish	Pond of fish	-	-	+	+	+	-	-	-	-	+	-	-	-
	Product of food	-	-	+	+	+	-	-	-	-	+	-	-	-

Table 13: Table illustrates the people engagement in different types of livelihood sectors including agriculture, infrastructure, health, livestock and fish with their subsectors and existing hazards.

Module 4 Safeguarding and Protection of Women in DRR & CCA

Session Outline

Aim:

The ability of a CSO to internalize how community or society particularly women and other vulnerable groups expose to protection risk

Learning outcomes By the end of the session participants will (be able to):

- Identify differential impact on women in different life cycle stages (for example: adolescents, pregnant women and girls, lactating women, aged women in addressing safeguarding and protection in DRR and CCA.
- Effectively explain sexual exploitation and abuse in the context of humanitarian aid work and explain its consequences.
- Effectively explain factors that lead to sexual exploitation and abuse in humanitarian work.
- Effectively explain code of conduct and expected behaviour require by humanitarian actors
- Effectively explain what are action needed at organizational level for the safeguard and promote protection of vulnerable community at disaster management cycle includes preparedness, response and early recovery stage
- Effectively explain what behaviour and attitude of staff required for safeguarding of disaster affected vulnerable population

Methodology

Title	Slide and Learning Outcome	Mins	Activity (including timings)	Arrangement	Resources
Learning Outcomes	2	10	- Introduce learning outcomes. By the end of the session you will be able to....	Discussion	Laptop, and projector
Introduction to different experiences women are facing in disaster	Slide 4-5 <ul style="list-style-type: none"> What are the needs (practical/strategical) to be addressed of women and marginalized group of people in responding during disaster? 	30	- Exercise on how women identify themselves in society - Role of women define by society and nature -	Presentation & Group exercise	Laptop, and projector Flipchart and Marker Pen
Internalizing of different experiences women are facing in disaster	Slide 7-11 <ul style="list-style-type: none"> Effectively explain sexual exploitation and abuse in the context of humanitarian aid work and explain its consequences. Effectively explain factors that lead to sexual exploitation and abuse in humanitarian work. 	60	- Presentation on different experiences of women in disaster - Group exercise on type pf abuse - Quiz on harassment and responsibilities	Role play and discussion	Flip chart, marker, VIP card,

International instruments and Protection from sexual exploitation & abuse	Slide 12-17 effectively explain international protocol, code of conduct and expected behaviour require by humanitarian actors	60	- Introduction Instruments of International law Concerning Women Introduction to standard of safeguarding policy scenario exercise	Group exercise, Quiz and introduction to safeguard policy to prevent sexual exploitation and abuse	Laptop, and projector Flipchart and Marker Pen op, and projector
Reflection of learning	Reflection cards	20	Signing the safeguarding and code of conduct document Of CA	Plenary discussion	Laptop, and projector Flipchart and Marker Pen Safeguard and code of conduct printed document

Different Generic Safeguarding Issue Women Face in Disaster and Humanitarian Crisis

The experiences of different natural & human made disaster find out different socio, cultural, political and economic norms have directly and indirectly affect women Include:

- ✓ Women lost their husband in emergency face doubly neglected
- ✓ Sexual and physical assault on women by others and their family members in addition to coercion to keep quiet about the assault increase
- ✓ Lack of legal help particularly for women who has no information and not connected with networking
- ✓ Lack of privacy in emergency/semi-permanent shelters creating a feeling of insecurity amongst women who are already in trauma.
- ✓ Increased responsibility towards family in such a situation where it is difficult to even arrange for day to day needs.
- ✓ Increase in domestic violence
- ✓ labour, where women carry most of unpaid care work responsibilities
- ✓ many of whom had to be relocated to temporary shelters

- ✓ post-Specialized support for pregnant and breastfeeding women, as well as women and girls of reproductive age, tend to become less of a priority in emergencies
- ✓ Women, who are socially expected to be the primary caregivers, have the added burden of caring for the sick, including finding cash for medicine and hospital fees.

Types of abuse & harassment women face during disaster

- Participants will do an exercise on poster paper in a group – **5 groups and each group consist of 6 participants**

What type of abuse Women face pre, during and post disaster

Introduction Different Type of Abuse

Abuse may include, but is not exclusive to:

- **Physical abuse** or physical injury, such as evidence of hitting, kicking or shaking, where there is definite knowledge or reasonable suspicion, that the injury was inflicted or knowingly not prevented.
- **Emotional abuse** where harm is done by persistent or severe emotional ill treatment or rejection, such as degrading punishments, threats and not giving care and affection, resulting in adverse effects on behaviour and emotional developments of a person.
- **Sexual abuse** where **exploitation** of a person occurs. This includes rape, incest and all forms of sexual activities including pornography. Exchanging of benefits, for example goods, food and money in exchange for sexual favours.
- **Neglect**, where basic needs such as food, warmth and medical care are not met, or when there is a failure to protect a person from exposure to any kind of danger, resulting in serious impairment of a person's health or development.
- **Sexual Harassment** is unwanted behaviour of a sexual nature which: violates your dignity, makes you feel intimidated, degraded or humiliated or creates a hostile or offensive environment.

You don't need to have previously objected to someone's behaviour for it to be considered unwanted. Sexual harassment can include:

- sexual comments or jokes
- physical behaviour, including unwelcome sexual advances, touching and various forms of sexual assault
- displaying pictures, photos or drawings of a sexual nature
- sending texts or emails with a sexual content

Story: Disaster Intensifies Gender based Violence - Flood Affected Women's Voice from Jamalpur

Livelihood insecurity, displacement, and unprotective coping mechanism engender women in occurrence of gender-based violence (GBV) when flood hit. Living in a single room at in-laws along with three daughters was not easy for Sabina (45 years old). She suggested her husband to buy land and build a new house some other place. Accordingly, he managed to buy a land at the Pachpoyla village which is one of the most flood-prone areas in Jamalpur. The house, built on a lower land, was inundated during the recent flood. Throughout the flood, Sabrina's husband blamed her for all the sufferings they had gone through. She recalled, **"Every morning my husband quarrelled with me. He used to blame me for the decision we took to build the house at this place. He says, I have to confront these sufferings all by myself"**.

Most of the women are pressurized to do household chores overlooking the risks and challenges they face during a flood. Women willingly carry out those burdens as they are not aware of their rights and needs. Addressing the gender-based violence, Amrina shared what she witnessed while taking shelter at a house. That house has not inundated so, many families took shelter there and made it overcrowded. The man of that house was frequently getting disturbed due to the noisy and cramped atmosphere at home. Subsequently, he misbehaved with his wife frequently for giving shelter to flood-affected people.

Patriarchal ideology transforms the chain of violence. Accordingly, the female members at in-laws violate the daughter in law. For instance, a family consists of ten members was wholly depending on the only daughter in law for household management. The other women of that family e.g. mother-in-law, sister-in-law did not cooperate with her.

Adolescents girl's safety and security is another major concern during the flood as they need to displace, there risk of abuse increases. Usually, parents send adolescents girls to the most trustworthy kin's place for shelter. Those who don't have alternatives, keep their daughters at home despite the disruptive living conditions.

Taking shelter in a place with no specific facilities from adolescent girls and women create scopes for sexual abuse and assault. A volunteer of local organization shared her field experience regarding GBV. During the last flood at Jamalpur, A newly married couple took shelter at the nearby school. Lights of the school building were not working. In the darkness at night, a man sexually abused the wife and she was unaware that the person was not her husband. While recalling about that night with her husband, the reality came out on the next morning. The couple got divorced eventually.

Mostly the husbands do not consider the scarcity of resources and challenges to cook during the flood. They demand daily three times meal from wife. At times, husband beats wife for not being able to save the dishes from washing away. Because of distorted communication systems, the legal services are disrupted. In fear of being stigmatized, the victim conforms to the culture of silence. They cannot seek help from anyone near or far because of the displaced situation.

Information credit: Laila Sumaiya, Communication professional

Location: Patharsi Union, Islampur Upzila, Jamalpur

Story: Increasing Risk of Sexual Abuse During Disaster

Fourteen-year-old Ayesha (Pseudo name) lives with her elderly grandma in Nimkusarpara village, Patgasi union, Kurigram Sadar. Her abandoned mother is a garment worker living in a slum at Dhaka. During recent flood hit, Ayesha's village had inundated. The villagers took shelter at the nearby school. The shelter place does not have gender disaggregated facilities. Subsequently, both men and women had to stay under the same roof in overcrowded and stuffy condition. Ayesha's grandma was the only person to take care of her on that disastrous situation. At an evening, her grandma went to manage food leaving her all alone. Meanwhile, a young boy raped Ayesha under the dark staircase of school building. She never knew about such kind of violence. Neither she could explain the incident nor could share with her grandma. On the next morning, a girl (community volunteer of local organization) suspected that something was not ok with Ayesha. She figured out the incident and informed to the organization. Immediately, the local organization informed the police and told the volunteer to file a case against the rapist on behalf of the victim. According to inquiry, the rapist is the inhabitant of the same village Ayesha lives in. His father is a freedom fighter and working as a school teacher at the village. The rapist has taken behind the lockup. That local organization assured the community to bring justice for Ayesha. After the rape case spread out, it became a terror for the parents who took shelter there along with their young daughters. They left the school immediately and passed flood days at the rooftop of their inundated homes.

Information credit: Laila Sumaiya, Communication professional

Location: Kurigram

Quiz on Harassment and Responsibility

- What should you do if you see your supervisor inappropriately touches flood affected beneficiaries
 1. Nothing as he is my supervisor
 2. Talk to supervisor and share feeling
 3. Report to higher manager
- You passed information regarding potential abuse of affected beneficiaries and you feel she did not take it seriously, what should you do
 1. Nothing as my manager know better than me
 2. Ignore as it is not my problem
 3. Talk to potential victim to make him/her aware
 4. Talk to higher manager
- Which statement is true
 1. Forceful sex at shelter home with wife is not abuse
 2. Forceful sex at shelter home with wife is not abuse
- Physical, sexual and neglects are all type of abuse but what is the other type
 1. Social
 2. Emotional
 3. Personal
- Which of these bruises at beneficiaries or colleagues' bodies may cause you concern?
 1. Cluster of bruises often on the upper arm or on the outside of the thigh
 2. Bruises on soft parts of the bodies e.g. stomach area back buttocks
- Whose responsibility is to keep staff and affected population from Harm
 1. Social services
 2. Family
 3. Community
 4. Organization
- Which of the UN convention protect women from all form of violence?
 1. Universal Declaration of Human Rights (1948)
 2. Convention on the Political Rights of Women (1952)
 3. Declaration of elimination of violence against women (1993)

Instruments of International Law Concerning Women

- Universal Declaration of Human Rights (1948)

- Convention on the Political Rights of Women (1952)
- International Covenant on Civil and Political Rights (1966)
- International covenant on economic, cultural and social rights (1966)
- Declaration on the elimination of all forms of discrimination against women (1967)
- Declaration on the protection of women and children in emergencies and armed conflicts (1974)
- Convention on the elimination of all forms discrimination against women (1979)
- Declaration of elimination of violence against women (1993)

Standard Sets for Safeguarding & Protection of Women from any form of abuse

In order to address different protection challenges of women, humanitarian organisations includes government developed safeguarding measures to increase organisation’s ability to prevent abuse by incorporates safeguarding standard into organisation’s ongoing work practices, and builds robust practices and mechanisms for response.

Key Steps for organization to Address Concern & Complain

1) Reporting to appropriate designated colleague

The need to report arises in the following instances:

- Abuse is observed or suspected
- An allegation of abuse is made
- Someone discloses abuse
 - 2) Care of confidentiality
 - 3) Investigation
 - 4) Skill staff for investigation
 - 5) Supporting and safeguarding of the survival
 - 6) Action based on the findings considering organization's code of conduct and disciplinary process

Steps for Future Prevention

- Reference check before recruitment
- Orientation on organization’s code of conduct, organization's safeguarding policy and organization's values to staff, partner, consultant and vendors
- Orientation on humanitarian principle
- Orientation on inclusion standard

Scenario practice

The disaster situation revealed that the loss of livelihood, displacement, resources, lack of family protection led to gender based violence. Executive Director of the CSO informally informed by the husband of the survival wife that one of her male staff organized newly married couple's shelter at local school as couple house inundated due to recent flood. The shelter place lacks all basic facilities includes functional lightening at the night time which caused opportunity for alleged staff to sexually harass the wife at night.

- What would be the role of the Executive Director and Organization for addressing the said allegation and ensuring future safeguard of staff and affected population

Different Generic Safeguarding Issue Women Face in Disaster and Humanitarian Crisis

The experiences of different natural & human made disaster find out different socio, cultural, political and economic norms have directly and indirectly affect women Include:

- ✓ Women lost their husband in emergency face doubly neglected
- ✓ Sexual and physical assault on women by others and their family members in addition to coercion to keep quiet about the assault increase
- ✓ Lack of legal help particularly for women who has no information and not connected with networking
- ✓ Lack of privacy in emergency/semi-permanent shelters creating a feeling of insecurity amongst women who are already in trauma.
- ✓ Increased responsibility towards family in such a situation where it is difficult to even arrange for day to day needs.
- ✓ Increase in domestic violence
- ✓ labour, where women carry most of unpaid care work responsibilities
- ✓ many of whom had to be relocated to temporary shelters
- ✓ post-Specialized support for pregnant and breastfeeding women, as well as women and girls of reproductive age, tend to become less of a priority in emergencies
- ✓ Women, who are socially expected to be the primary caregivers, have the added burden of caring for the sick, including finding cash for medicine and hospital fees.

Types of abuse & harassment women face during disaster

- Participants will do an exercise on poster paper in a group – **5 groups and each group consist of 6 participants**

What type of abuse Women face pre, during and post disaster

Introduction Different Type of Abuse

Abuse may include, but is not exclusive to:

- **Physical abuse** or physical injury, such as evidence of hitting, kicking or shaking, where there is definite knowledge or reasonable suspicion, that the injury was inflicted or knowingly not prevented.

- **Emotional abuse** where harm is done by persistent or severe emotional ill treatment or rejection, such as degrading punishments, threats and not giving care and affection, resulting in adverse effects on behaviour and emotional developments of a person.
- **Sexual abuse** where **exploitation** of a person occurs. This includes rape, incest and all forms of sexual activities including pornography. Exchanging of benefits, for example goods, food and money in exchange for sexual favours.
- **Neglect**, where basic needs such as food, warmth and medical care are not met, or when there is a failure to protect a person from exposure to any kind of danger, resulting in serious impairment of a person's health or development.
- **Sexual Harassment** is unwanted behaviour of a sexual nature which: violates your dignity, makes you feel intimidated, degraded or humiliated or creates a hostile or offensive environment.

You don't need to have previously objected to someone's behaviour for it to be considered unwanted.

Sexual harassment can include:

- sexual comments or jokes
- physical behaviour, including unwelcome sexual advances, touching and various forms of sexual assault
- displaying pictures, photos or drawings of a sexual nature
- sending texts or emails with a sexual content

Story: Disaster Intensifies Gender based Violence - Flood Affected Women's Voice from Jamalpur

Livelihood insecurity, displacement, and unprotective coping mechanism engender women in occurrence of gender-based violence (GBV) when flood hit. Living in a single room at in-laws along with three daughters was not easy for Sabina (45 years old). She suggested her husband to buy land and build a new house some other place. Accordingly, he managed to buy a land at the Pachpoyla village which is one of the most flood-prone areas in Jamalpur. The house, built on a lower land, was inundated during the recent flood. Throughout the flood, Sabrina's husband blamed her for of all the sufferings they had gone through. She recalled, **"Every morning my husband quarrelled with me. He used to blame me for the decision we took to build the house at this place. He says, I have to confront these sufferings all by myself"**.

Most of the women are pressurized to do household chores overlooking the risks and challenges they face during a flood. Women willingly carry out those burdens as they are not aware of their rights and needs. Addressing the gender-based violence, Amrina shared what she witnessed while taking shelter at a house. That house has not inundated so, many families took shelter there and made it overcrowded. The man of that house was frequently getting disturbed due to the noisy and cramped

atmosphere at home. Subsequently, he misbehaved with his wife frequently for giving shelter to flood-affected people.

Patriarchal ideology transforms the chain of violence. Accordingly, the female members at in-laws violate the daughter in law. For instance, a family consists of ten members was wholly depending on the only daughter in law for household management. The other women of that family e.g. mother-in-law, sister-in-law did not cooperate with her.

Adolescents girl's safety and security is another major concern during the flood as they need to displace, there risk of abuse increases. Usually, parents send adolescents girls to the most trustworthy kin's place for shelter. Those who don't have alternatives, keep their daughters at home despite the disruptive living conditions.

Taking shelter in a place with no specific facilities from adolescent girls and women create scopes for sexual abuse and assault. A volunteer of local organization shared her field experience regarding GBV. During the last flood at Jamalpur, A newly married couple took shelter at the nearby school. Lights of the school building were not working. In the darkness at night, a man sexually abused the wife and she was unaware that the person was not her husband. While recalling about that night with her husband, the reality came out on the next morning. The couple got divorced eventually.

Mostly the husbands do not consider the scarcity of resources and challenges to cook during the flood. They demand daily three times meal from wife. At times, husband beats wife for not being able to save the dishes from washing away. Because of distorted communication systems, the legal services are disrupted. In fear of being stigmatized, the victim conforms to the culture of silence. They cannot seek help from anyone near or far because of the displaced situation.

Information credit: Laila Sumaiya, Communication professional

Location: Patharsi Union, Islampur Upzila, Jamalpur

Story: Increasing Risk of Sexual Abuse During Disaster

Fourteen-year-old Ayesha (Pseudo name) lives with her elderly grandma in Nimkusarpara village, Patgasi union, Kurigram Sadar. Her abandoned mother is a garment worker living in a slum at Dhaka. During recent flood hit, Ayesha's village had inundated. The villagers took shelter at the nearby school. The shelter place does not have gender disaggregated facilities. Subsequently, both men and women had to stay under the same roof in overcrowded and stuffy condition. Ayesha's grandma was the only person to take care of her on that disastrous situation. At an evening, her grandma went to manage food leaving her all alone. Meanwhile, a young boy raped Ayesha under the dark staircase of school building. She never knew about such kind of violence. Neither she could explain the incident nor could share with her grandma. On the next morning, a girl (community volunteer of local organization) suspected that something was not ok with Ayesha. She figured out the incident and informed to the organization. Immediately, the local organization informed the police and told the volunteer to file a case against the rapist on behalf of the victim. According to inquiry, the rapist is the inhabitant of the same village Ayesha lives in. His father is a freedom fighter and working as a school teacher at the village. The rapist has taken behind the lockup. That local organization assured the community to bring justice for Ayesha. After the rape case spread out, it became a terror for the parents who took shelter there along with their young daughters. They left the school immediately and passed flood days at the rooftop of their inundated homes.

Information credit: Laila Sumaiya, Communication professional

Location: Kurigram

Quiz on Harassment and Responsibility

- What should you do if you see your supervisor inappropriately touches flood affected beneficiaries
 4. Nothing as he is my supervisor
 5. Talk to supervisor and share feeling
 6. Report to higher manager
- You passed information regarding potential abuse of affected beneficiaries and you feel she did not take it seriously, what should you do
 5. Nothing as my manager know better than me
 6. Ignore as it is not my problem
 7. Talk to potential victim to make him/her aware
 8. Talk to higher manager
- Which statement is true

3. Forceful sex at shelter home with wife is not abuse
 4. Forceful sex at shelter home with wife is not abuse
- Physical, sexual and neglects are all type of abuse but what is the other type
4. Social
 5. Emotional
 6. Personal
- Which of these bruises at beneficiaries or colleagues' bodies may cause you concern?
3. Cluster of bruises often on the upper arm or on the outside of the thigh
 4. Bruises on soft parts of the bodies e.g. stomach area back buttocks
- Whose responsibility is to keep staff and affected population from Harm
5. Social services
 6. Family
 7. Community
 8. Organization
- Which of the UN convention protect women from all form of violence?
4. Universal Declaration of Human Rights (1948)
 5. Convention on the Political Rights of Women (1952)
 6. Declaration of elimination of violence against women (1993)

Instruments of International Law Concerning Women

- Universal Declaration of Human Rights (1948)
- Convention on the Political Rights of Women (1952)
- International Covenant on Civil and Political Rights (1966)
- International covenant on economic, cultural and social rights (1966)
- Declaration on the elimination of all forms of discrimination against women (1967)
- Declaration on the protection of women and children in emergencies and armed conflicts (1974)
- Convention on the elimination of all forms discrimination against women (1979)
- Declaration of elimination of violence against women (1993)

Standard Sets for Safeguarding & Protection of Women from any form of abuse

In order to address different protection challenges of women, humanitarian organisations includes government developed safeguarding measures to increase organisation's ability to prevent abuse by

incorporates safeguarding standard into organisation's ongoing work practices, and builds robust practices and mechanisms for response.

Key Steps for organization to Address Concern & Complain

1) Reporting to appropriate designated colleague

The need to report arises in the following instances:

- Abuse is observed or suspected
 - An allegation of abuse is made
 - Someone discloses abuse
- 2) Care of confidentiality
 - 3) Investigation
 - 4) Skill staff for investigation
 - 5) Supporting and safeguarding of the survival
 - 6) Action based on the findings considering organization's code of conduct and disciplinary process

Steps for Future Prevention

- Reference check before recruitment
- Orientation on organization's code of conduct, organization's safeguarding policy and organization's values to staff, partner, consultant and vendors
- Orientation on humanitarian principle
- Orientation on inclusion standard

Scenario practice

The disaster situation revealed that the loss of livelihood, displacement, resources, lack of family protection led to gender based violence. Executive Director of the CSO **informally informed** by the husband of the survival wife that one of her male staff organized newly married couple's shelter at local school as couple house inundated due to recent flood. The shelter place lacks all basic facilities includes functional lightening at the night time which caused opportunity for alleged staff to sexually harass the wife at night.

- What would be the role of the Executive Director and Organization for addressing the said allegation and ensuring future safeguard of staff and affected population

Module 5: Policy and Institution on DRR and CC

Aim of the Module: The ability of the CSO to know the global and national policy instruments.

Learning outcomes: By the end of Module 5, the participants will be able to understand and connect

key international policies that are in place. The participants will be taught how the global policies are transcended down to the local levels via national policies, which are effective for action to help the grass-root communities.

Sections of the module:

5.1 Introduction: DRR and CCA for Sustainable Development

5.2 Key policies and institutions on DRR, CCA and Gender: Global perspective

5.2.1. The Convention on the Elimination of all forms of Discrimination Against Women (CEDAW)

5.2.2. The United Nations Framework Convention on Climate Change (UNFCCC)

5.2.3. Paris Agreement (2015)

5.2.4. Sendai Framework for Disaster Risk Reduction 2015-2030

5.3 Key policies at national level on DRR and CCA

5.3.1 Standing Orders on Disasters (SOD)

5.3.2 Bangladesh Climate Change and Gender Action Plan (BCCGAP, 2013)

5.3.3 Bangladesh Climate Change Strategy and Action Plan

5.4 Role of Key Institutions on DRR and CCA: Global and National (Government schemes and safety net program during different cycle of disaster management process for different group of people)

5.4.1 Ministry of Disaster Management and Relief (MODMR) and its associated agencies (e.g. Department of Disaster Management (DDM))

5.4.2 Ministry of Environment, Forests and Climate Change (MoECC) and its associated agencies (BCCT, DOE, DoF)

5.4.3 Role of Ministry of Women and Children's Affairs (MoWCA)

Methodology

Title	Slide and learning outcome	Time (mins)	Activity	Learning Methods(on site learning)	Resources
Learning Outcomes	2 slides	15	Introduce to the aim of the module and learning outcomes	Discussion with slides	Laptop and projector
Presentation and introduction on DRR and CCA for sustainable development	3 slides Effectively able to understand the basic DRR and CCA	30	Ask interactive questions and assess whether they have initial idea of DRR and CCA in light of development	Discussion with handouts and slides	Laptop and projector
Key policies and institutions on DRR and CCA: Global perspective	4 slides Effectively able to understand the key policies if the UNFCCC, Paris Agreement and the Sendai Framework	30	Training on what these international policies are that cover DRR and CCA	Discussion with handouts and interactive discussion	Laptop, projector, flip chart and marker Pen,
Key policies at national level on DRR and CCA	6 slides Enhanced the understanding level of the SOD, BCCGAP and BCCSAP to fully understand what actions have been designed by the government along these issues.	30	Explain how Bangladesh has taken steps to address DRR and CCA through interactive consultation and training	Presentation with slides	Laptop, projector, flip chart and marker Pen,
Role of Key Institutions on DRR and CCA: Global and National (Government schemes and safety net program during different cycle of disaster	6 slides Effectively able to understand the agencies and what they do, especially the MOEFCC, MOWCA, DDM etc.	60	Explain the roles and responsibilities of the ministries and associated departments and what type of tasks they are doing to address DRR and CCA issues.	Discussion with handouts and slides	Laptop, projector, flip chart and marker Pen,

management process for different group of people)					
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5.1. Introduction: DRR and CCA for Sustainable Development

Disasters Risk Reduction (DRR) figures the foundation for climate change adaptation. DRR takes care of risk from existing floods, prevailing droughts and so on. DRR is the development and application of policies and practices that basically reduces the risks of vulnerabilities. DRR also applies to responding and managing current disasters risks. On the other hand, Climate Change (CC) is an issue that cuts across a large number of sectors, actors and institutions. Climate Change Adaptation (CCA) is an adjustment in natural and human systems that occurs in response to actual or anticipated climate changes or their effects can lessen harm or utilize opportunities.(Saha, S.Ali, M.Haque, N.Jonsson, G., 2014).

Both DRR and CCA address reducing risks of present developments efforts of previous gains and future aspirations and their considerations are necessary in present’s world from planning to delivery of development goals and targets. (Saha, S.Ali, M.Haque, N.Jonsson, G., 2014).

What is DRR?

Disaster Risk Reduction (DRR) purposes to reduce the damage that is triggered by natural hazards like earthquakes, floods, droughts besides cyclones, through an ethic of prevention. Disaster risk reduction contains disciplines like disaster management, disaster mitigation and disaster preparedness, nevertheless DRR is also part of sustainable development (UNDRR, 2019). DRR encompasses every part of society, every part of government, besides every part of the professional and private sector (UNDRR, 2019).



Image 1: Bangladesh women work together to improve community infrastructure, including roads (Credit-UNDP Bangladesh¹).

What is CCA?

CCA programs are activities which aim to make adjustments in natural and human systems in response to actual or expected climate change and their effects (Save the Children's, 2015). There is a wide consensus that this warming will lead to changing rainfall patterns, rising sea levels, increased spread of tropical disease, loss of biodiversity and increased frequency and amplitude of weatherrelated natural disasters (Dale Dominey-Howes, 2011).

¹ https://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/supporting_transformationalchange/Bangladesh-drr-casestudy-transformational-change.html



Image 2: Enhancing Adaptive Capacities of Coastal Communities, especially Women, to Cope with Climate Change-Induced Salinity in Bangladesh (Credit-UNDP¹)

¹ <https://www.adaptation-undp.org/projects/enhancing-women-and-girls-adaptive-capacity-climatechangebangladesh>

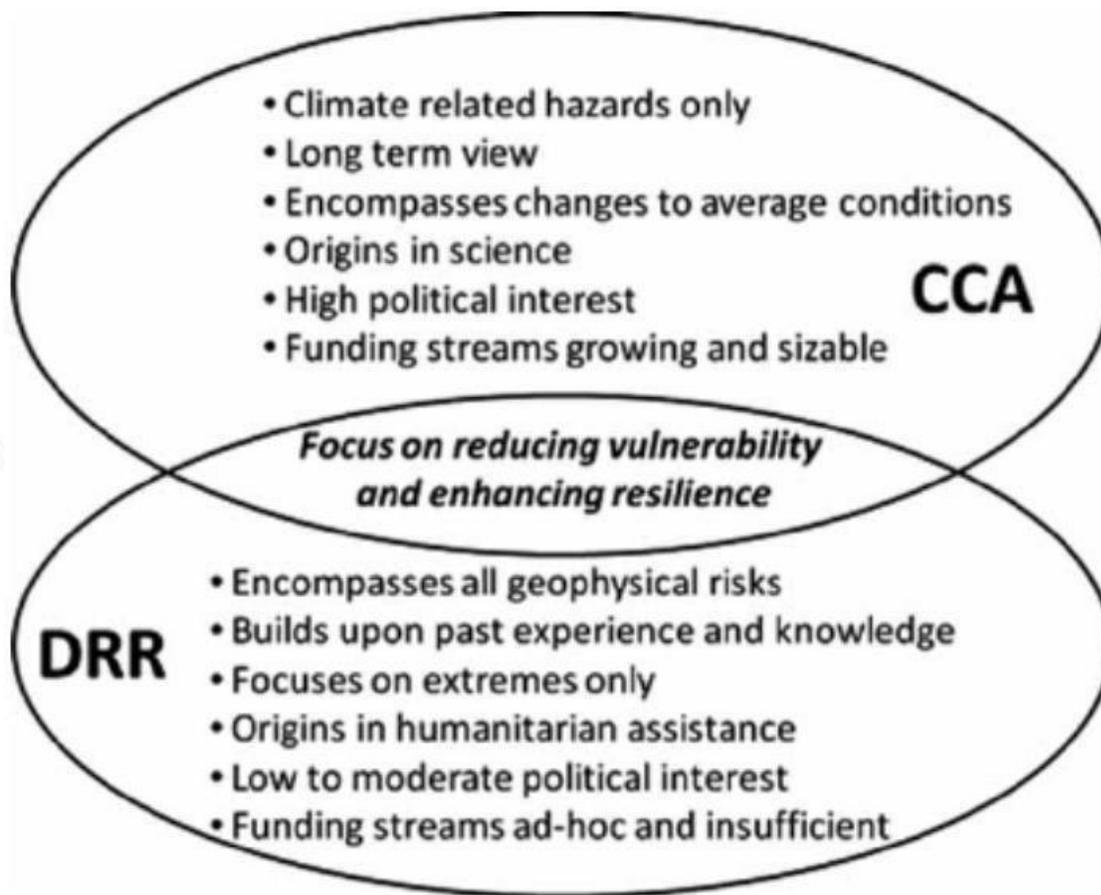


Figure 1: Similarities and differences of DRR and CCA (ResearchGate¹)

Disaster Risk Reduction and CCA are not mutually exclusive but in fact interdependent; a CCA project may be just as vulnerable to natural hazards as any other project and therefore needs a DRR component to protect the CCA investment. To address the risks and uncertainty predicted by climate change, both DRR and CCA analysis and programming must attempt to take account of the unpredictability of what may happen in the future as the planet continues to get warmer (Save the Children's, 2015).

¹ https://www.researchgate.net/publication/233068837_Integrating_disaster_risk_reduction_and_climate_change_adaptation_in_the_Pacific

Integration of disaster risk reduction and climate change adaptation for sustainable development

Both DRR and CCA have the objective of reducing factors that contribute to specific risks while ensuring sustainability in socioeconomic development. Conventionally, CCA tackles various facets of the impact of environmental degradation in the domains of water, agriculture, health, and infrastructure with the development of new tools for early warning systems (Rajesh K. Mall Ravindra K. Srivastava Tirthankar Banerjee Om Prakash Mishra Diva Bhatt Geetika Sonkar, 2019).

Integration of DRR and CCA

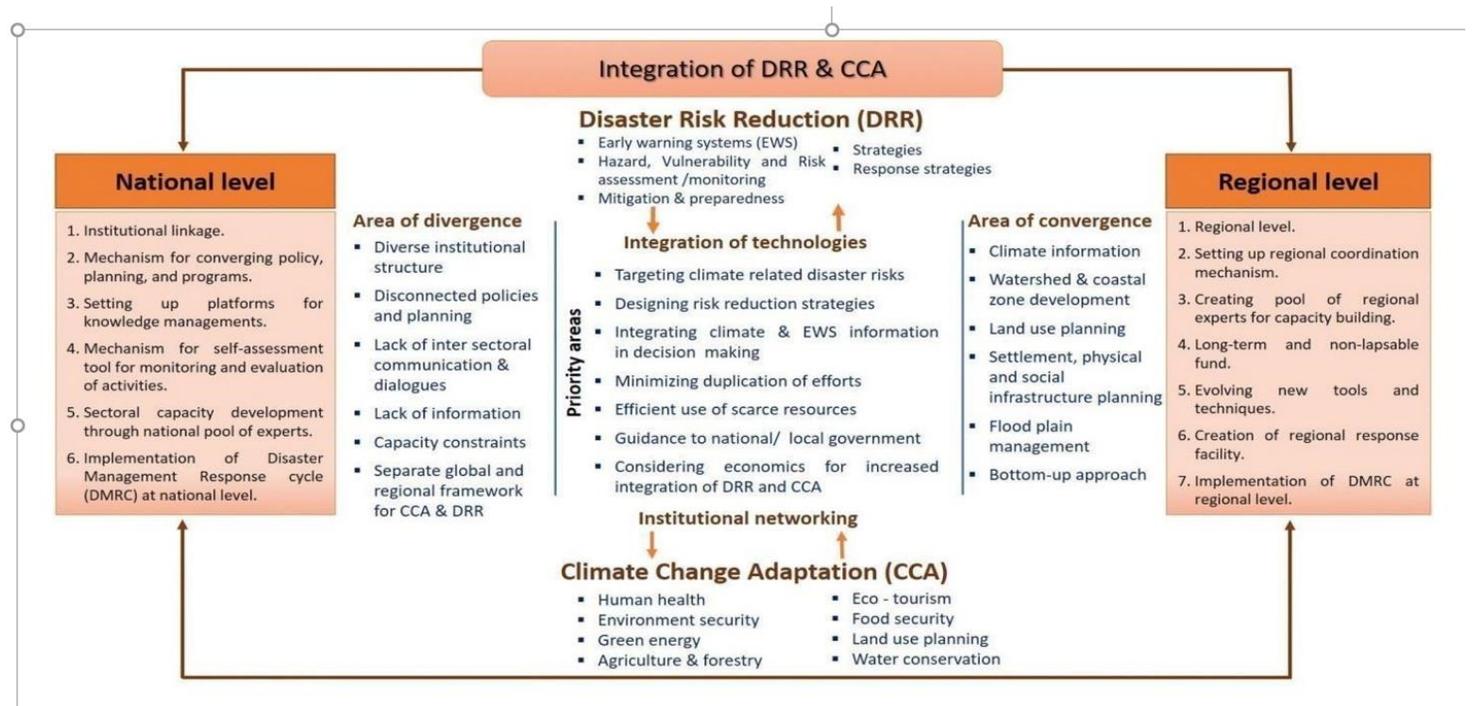


Figure schematic diagram showing a holistic for integrating DRR with CCA over the South Asia region

5.2 Key policies and institutions on DRR,CCA and Gender: Global perspective

5.2.1. The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)

The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) is an international treaty adopted in 1979 by the United Nations General Assembly. Described as an international bill of rights for women, it was instituted on 3 September 1981 and has been ratified by 189 states. The Convention is structured in six parts with 30 articles total.



Legal Mandate for Gender and Climate Change:

CEDAW has often noted that climate change and natural disasters disproportionately impact women. Since 2009, CEDAW has worked to “ensure that climate change and disaster risk reduction measures are gender responsive, sensitive to indigenous knowledge systems and respect human rights.”

UN CEDAW committee adopts General Recommendation No. 37 on Gender-related dimensions of disaster risk reduction in the context of climate change (CEDAW/C/GC/37)⁴

Image3: Logo of The Committee on the Elimination of Discrimination against Women (CEDAW)(Credit-DSC)¹

The Committee on the Elimination of Discrimination against Women (CEDAW) expresses its concern about the absence of a gender perspective in the United Nations Framework Convention on Climate Change (UNFCCC) and other global and national policies and initiatives on climate change. From CEDAW’s examination of State Parties reports, it is apparent that climate change does not affect women and men in the same way and has a gender- differentiated impact. However, women are not just helpless victims of climate change – they are powerful agents

¹ <https://www.doughtystreet.co.uk/event/celebration-40th-anniversary-cedaw>

⁴ <https://www.ohchr.org/en/professionalinterest/pages/cedaw.aspx>

of change and their leadership is critical. All stakeholders should ensure that climate change and disaster risk reduction measures are gender responsive, sensitive to indigenous knowledge systems and respect human rights. Women’s right to participate at all levels of decision-making must be guaranteed in climate change policies and programmes (UNHR,2015).

5.2.2. The United Nations Framework Convention on Climate Change (UNFCCC)

In general terms, the UN Framework Convention delivers an inclusive framework for intergovernmental efforts to address climate change. More precisely, it establishes an objective & principles, commitments for different groups of countries, & a set of institutions all of which work to allow continued talks as well as *future* action to address global climate change (Peter E. Farrell)

Ultimate Objective

- According to Article 2, the ultimate objective of the Convention is “to achieve stabilization of atmospheric concentrations of greenhouse gases at levels that would prevent dangerous anthropogenic interference with the climate system” (Farrell, n.d.)

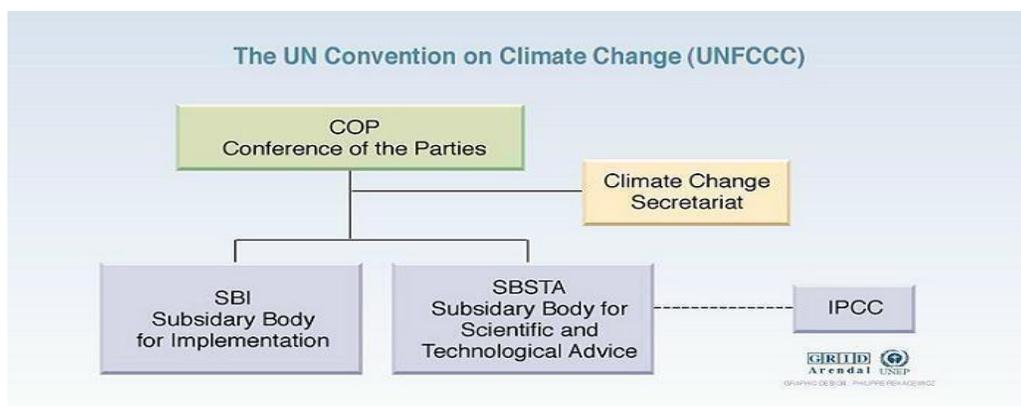


Figure: the Framework of UNFCCC (UNEP, 2009)

Intergovernmental Panel on Climate Change (IPCC)

The Intergovernmental Panel on Climate Change (IPCC) is the leading international body that does the assessment of climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio- economic effects (IPCC, 2019).

- In the same year, the UN General Assembly endorsed the action by WMO and UNEP in jointly establishing the IPCC.
- As an intergovernmental body, membership of the IPCC is open to all member countries of the United Nations (UN) and WMO.

Institutional Framework

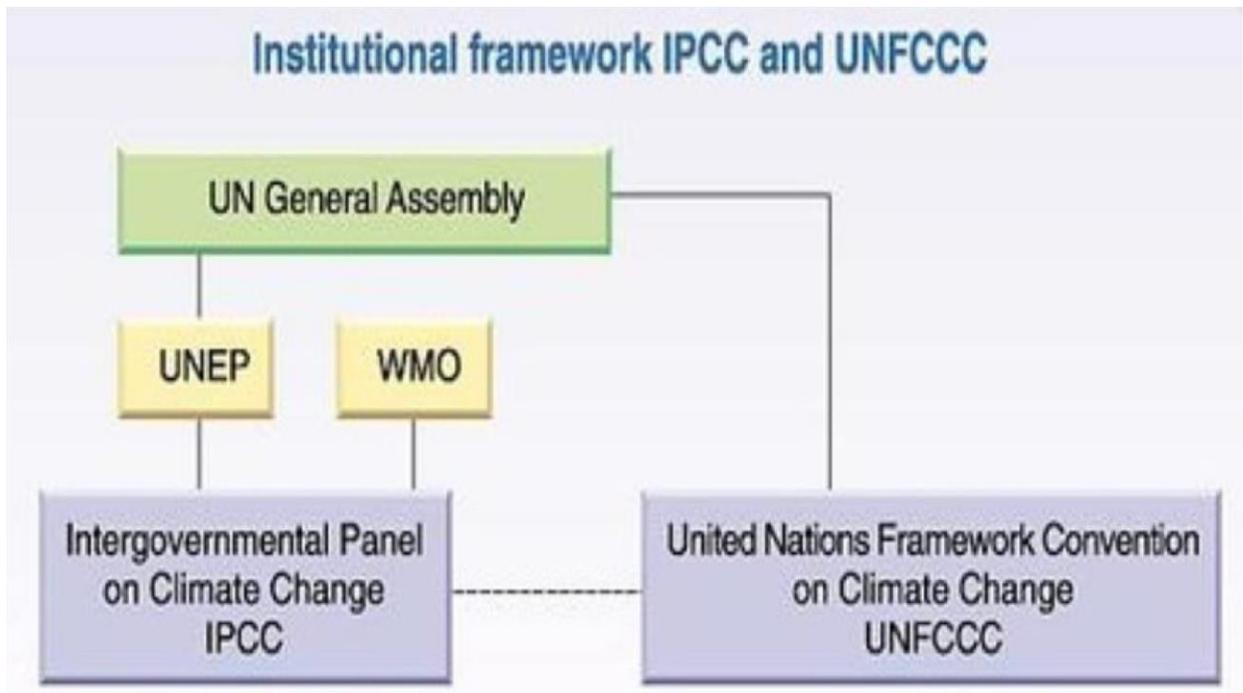


Figure 4: The institutional framework of IPCC and UNFCCC (UN environment, 2019¹).

¹ <https://www.grida.no/resources/6454>

The IPCC is organized as the most authoritative scientific and technical voice on climate change. Its assessments had a profound influence on the negotiators of the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (IPCC, 2019).

Structure of IPCC

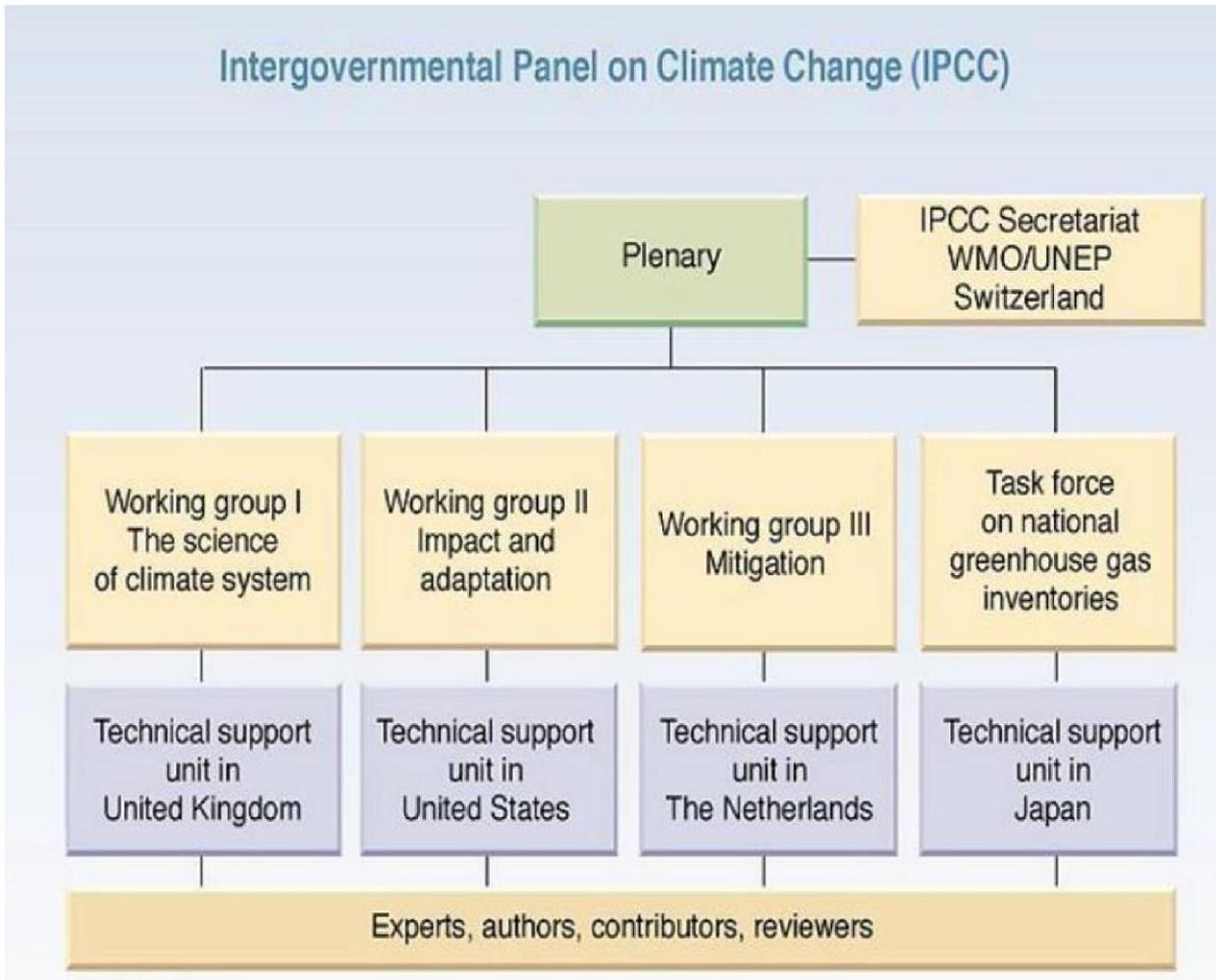


Figure 5: The intergovernmental panel on climate change (web warming, 2019¹)

¹ <http://plaza.ufl.edu/molly24/14-a-ipcc.jpg>

5.2.2. The Paris Agreement

At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change. The Paris Agreement is a tie between today's policies and climate-neutrality (European Commission, 2019).



Image 3: UNFCCC Flag

The Paris Agreement agreed

- † For a long-term goal of keeping the increase in global average temperature to **well below 2°C** above pre-industrial levels.
- † To aim to limit the increase to **1.5°C**, since this would significantly reduce risks and the impacts of climate change.
- † On the need for **global emissions to peak as soon as possible**, recognizing that this will take longer for developing countries.
- † To strengthen societies' ability to **deal with the impacts** of climate change.
- † To provide continued and enhanced international **support** for adaptation **to developing countries**.

⁸ https://ec.europa.eu/clima/policies/international/negotiations/paris_en

5.2.3. Sendai Framework for Disaster Risk Reduction 2015-2030

The Sendai Framework for Disaster Risk Reduction 2015-2030

- *Adopted by UN Member States*
- *On 18 March 2015 at the Third UN World Conference on Disaster Risk Reduction > In Sendai City, Miyagi Prefecture, Japan.*

The Sendai Framework is the first major agreement of the post-2015 development agenda, with

- *Four priorities for action.*
- *A set of 38 indicators,*
- *Seven targets*

The Four Priorities for Action:

- **Priority 1.** Understanding disaster risk
- **Priority 2.** Strengthening disaster risk governance to manage disaster risk
- **Priority 3.** Investing in disaster risk reduction for resilience
- **Priority 4.** Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction

The Seven Global Targets



Figure 6: The seven target goals of Sendai Framework Sendai framework for Disasters Risk reduction 201-2030(Credit- PreventionWeb.net-2019¹).

The Sendai Framework targets and indicators contribute to measuring disaster-related goals and targets of the 2030 Agenda for Sustainable Development, in particular (United Nations Climate Change, 2019) -

- ✦ **SDG 1** – End poverty in all its forms everywhere,
- ✦ **SDG11** – Make cities and human settlements inclusive, safe, resilient and sustainable
- ✦ **SDG13** – Take urgent action to combat climate change and its impacts.

¹ https://www.preventionweb.net/files/43291_targets.png

5.3. Key policies at national level on DRR and CCA

5.3.1. Standing Orders on Disasters (SOD)

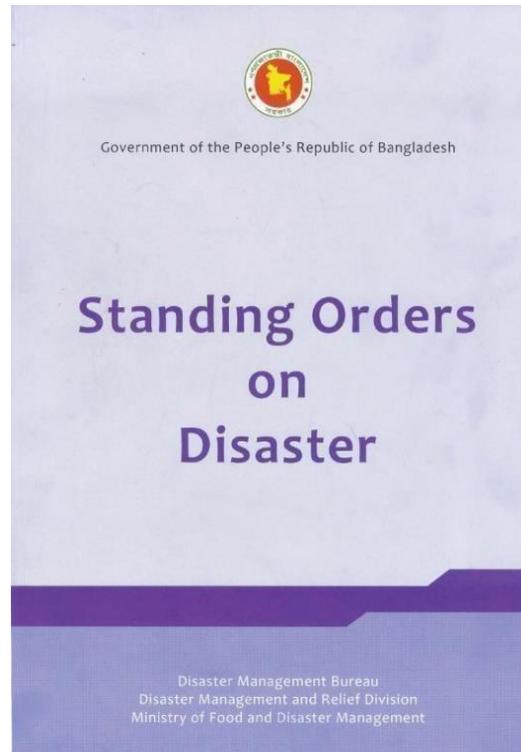
The Bangladesh Standing Orders on Disaster (SOD) describe, in detail, the roles and responsibilities of committees, Ministries and other organizations involved in disaster risk reduction and emergency management activities and establish the necessary actions required in implementing Bangladesh's Disaster Management Model (Arjumand Habib, Md. Shahidullah and Dilder Ahmed).

All Bangladesh Ministries, Divisions/Departments and Agencies will organize proper training of their officers and staff employed at District, Thana, Union and village levels according to their own Action plans so that they can help in rescue, evacuation and relief

work at different stages of disaster. The National Disaster Management Council (NDMC), Inter Ministerial Disaster Management Coordination Committee (IMDMCC) and Cabinet Committee on Disaster Response (CCDR) will confirm coordination of disaster associated activities at the National level (Standing Order)¹.

Nationally, three catastrophic disaster events have taken place in Bangladesh:

- 1) The 2004 flood
- 2) The 2007 flood
- 3) Cyclone SIDR 2007



¹ <https://www.ifrc.org/docs/idrl/883EN.pdf>

The aftermath of the 2004 flood resulted in the organization of the National Workshop on “Options for Flood Risk Reduction in Bangladesh” which dealt not only with flood risks but also overall disaster risk reduction issues in Bangladesh (Ahsan Zakir, 2010).

5.3.2. Bangladesh Climate Change and Gender Action Plan (BCCGAP, 2013)

The national Climate Change and Gender Action Plan for Bangladesh (ccGAP: Bangladesh) has been prepared with an aim to ensure gender equality into climate change related policies, strategies and interventions.

Overall Objective

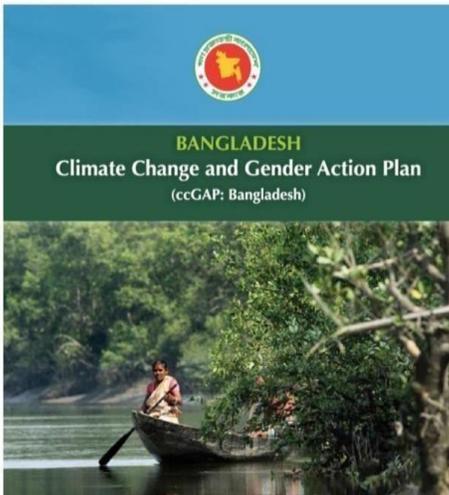
To mainstream gender concerns into climate change-related policies, strategies and interventions ensuring access to, participation in, contributions towards and benefits for the diverse group of stakeholders for the sustainable and equitable development of Bangladesh (MoEF, 2013).

Main Pillars

The ccGAP integrates gender considerations into four of the six main pillars as identified in the BCCSAP (Ministry of Environment of Forest, Government of the People's Republic of Bangladesh, 2013):

- (i) Food security, social protection and health
- (ii) Comprehensive disaster management
- (iii) Infrastructure
- (iv) Mitigation and low carbon development.
- (v) The remaining two pillars of the BCCSAP those of research and knowledge management and capacity building and institutional strengthening, were mainstreamed within the above four pillars

throughout the document as crosscutting topics (MoEF,2013).

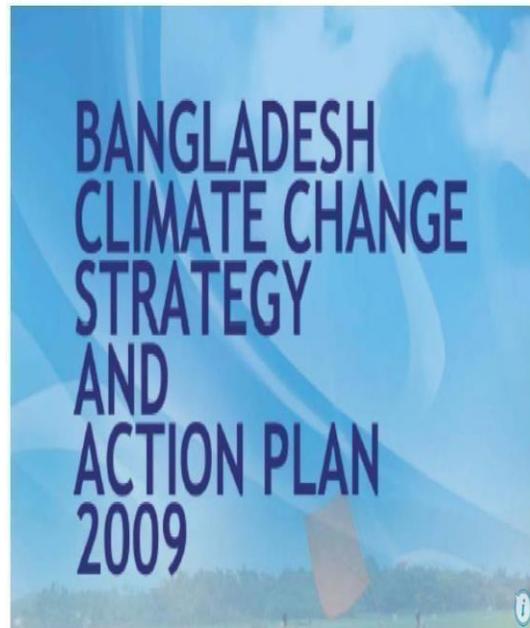


5.3.3 . Bangladesh Climate Change Strategy and Action Plan (BCCSAP)

The Bangladesh Climate Change Strategy and Action

Plan (BCCSAP) is a knowledge strategy built upon the National Adaptation Programme of Action (2005). It sets out 44 programs to be taken by Bangladesh over the short, medium and long term within six strategic areas – food security, social protection and health; comprehensive disaster management; infrastructure; research and knowledge management; mitigation and low carbon development; and capacity building and institutional strengthening (IUCN, 2011).

The Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2009 demonstrate the country's commitment and understanding of climate change (IUCN, 2011).



Objectives of BCCSAP

To formulate a strategy to for pro-poor, climate resilient and low carbon development, based on four building blocks of Bali Action plan (adaptation, mitigation, tech transfer and adequate as well as timely flow of new and additional funds) within a framework of food, energy, water, livelihoods and health security (IUCN, 2011).

Six Pillars:

- (1) food security and social protection,
- (2) comprehensive disaster management,
- (3) infrastructure,
- (4) research and knowledge management,
- (5) low-carbon development, and
- (6) capacity building and institutional strengthening.

5.4 Role of Key Institutions on DRR and CCA: Global and National

5.4.1 Ministry of Disaster Management and Relief (MODMR) and its associated agencies (e.g. Department of Disaster Management (DDM))

Ministry of Disaster Management and Relief (MODMR)

Mandate of the (MODMR): The Ministry of Disaster Management and Relief (MoDMR) has been given the mandate to drive national risk reduction reform programs.

Mission of (MODMR)

To achieve a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture, and

To promote food security as an important factor in ensuring the resilience of communities to hazards.¹

Vision of (MODMR)

To reduce the risk of people, especially the poor and the disadvantaged, from the effects of natural, environment and human induced hazards to a manageable and acceptable humanitarian level and to have in place an efficient emergency response management system.¹⁵

Department of Disaster Management (DDM)

Mandate of (DDM): To implement the objectives of Disaster Management Act

- Reducing the overall vulnerability from different impacts of disaster by undertaking risk reduction activities.
- Conducting humanitarian assistance programs efficiently to enhance the capacity of poor and disadvantaged.
- Strengthening and coordinating programmes undertaken by various government and non-government organizations related to disaster risk reduction and emergency response.

¹ <https://www.preventionweb.net/organizations/11157>

Mission of (DDM)

To serve the Ministry of Disaster Management and Relief to implement the objectives of Disaster management Act 2012 by undertaking risk reduction activities; responding to disaster events efficiently as well as strengthening and coordinating programs undertaken by different stakeholders related to DRR and DRM.¹

Vision of (DDM)

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

5.4.2. Ministry of Environment, Forests and Climate Change (MoEFCC) and its associated agencies (BCCT, DOE, DoF)

Ministry of Environment, Forest, and Climate Change (MOEFCC)

The Ministry of Environment & Forests is the nodal agency in the administrative structure of the Central Government, for the planning, promotion, co-ordination and overseeing the implementation of environmental and forestry programmes.¹³

Mission of MOEFCC

- ✦ To ensure sustainable environment and forest through conservation of ecosystem and biodiversity
- ✦ Controlling environmental pollution
- ✦ Addressing climate change
- ✦ Research
- ✦ Floristic survey
- ✦ Development of forest resources

¹ <http://www.un-spider.org/links-and-resources/institutions/bangladesh-ddm>

¹³ <https://www.devex.com/organizations/ministry-of-environment-forest-and-climate-change-bangladesh-123423>

Vision of MOEFCC

Sustainable environment and optimum forest coverage¹⁴.

Major Functions of MOEFCC

- Management of environment and ecology.
- Matters relating to environment pollution control.
- Conservation of forests and development of forest resources.
- Forestation and regeneration of forest extraction of forest produce.
- Plantation of exotic cinchona and rubber.
- Botanical gardens and botanical surveys.
- Tree plantation.
- Research and training in forestry.
- Mechanized forestry operations.
- Protection of wild birds and animals and establishment of sanctuaries.
- Matters relating to marketing of forest produce.

¹⁴ <https://www.devex.com/organizations/ministry-of-environment-forest-and-climate-change-bangladesh-123423>

- Through sustainable action on critical environmental problems that demonstrate practical solutions, and that galvanize public support and involvement.

Department of Forest (DOF)

Department of Forests (DOF) is a concerned department of the Government of Bangladesh which is responsible for the conservation of forests, environment and biodiversity. They are also responsible for socio-economic development through modern technology and creativity.

Key activities of the DOF

- Follow and implement the rules of the International Convention on Forests, Biodiversity and Wildlife, Contracts, Protocols.
- Conservation and management of wildlife.
- Conservation of biodiversity.
- Expansion of Eco-Tourism.
- Coastal and Wetland Biodiversity Management and Development.
- Carbon Sequestration and Carbon Trading.
- Climate resilient forestry, the creation of new forests, the collection and supply of forest resources.
- Protecting the stability of land based production systems.
- Development of natural and socio-economic conditions.
- Extension of forest and social forestry activities.
- Proper management of all protected areas, including sanctuaries, national parks, botanical gardens, eco-parks, safari parks, etc

5.4.3. Role of Ministry of Women and Children's Affairs (MoWCA)

Ministry of Women and Children Affairs is mandated to implement various programmes for development of women and children. It works for:

- **Empowerment of women**
- **Gender equality**
- **Ending violence against women**

This is one of the most important ministries in implementation of the NSSS. The Women and Children Affairs Ministry has taken numerous measures to lessen women's poverty. The ministry performances to:

- **Protect and empower women**
- **Stop violence against women**
- **Trafficking of women etc.**

Mission of MOWCA

The mission of MOWCA is related to establishing the rights of women and children and women empowerment through mainstreaming in development¹.

Vision of MOWCA

The vision of MOWCA is to help support society with gender equality and child protection (MOWCA, 2009).

Projects of MOWCA

MOWCA has implemented 19 Social Security Programmes in lifetime. In 2017-18, it has 16 Projects, the programmes are²:

1. Maternity Allowance Programme for the Poor
2. Allowances for the Urban Low-income Lactating Mothers
3. Vulnerable Group Development (VGD)
4. Micro-Credit for Women Self-employment
5. Joyeeta Foundation
6. Women's Skill Based Training for Livelihood
7. Child Development Center
8. Street Children Rehabilitation Programme
9. Enabling Environment for Child Right**
10. Early Learning for Child Development
11. Urban Based Women Development Project

¹ <http://socialprotection.gov.bd/wp-content/uploads/2017/08/11-MoWCA.pdf>

² <http://socialprotection.gov.bd/wp-content/uploads/2017/08/11-MoWCA.pdf>

12. Establishment of 20 Child Daycare Center Project
13. Generation Break Through
14. Investment Component for Vulnerable Group Development
15. Income Generating Activities for Women at Upazila Level
16. Multi-sectoral Programme to Prevent on Violence Against Women (4th Phase)

Module 6

Organizational development and sustainability – Needs Assessment CAPACITY IN DISASTER AFFECTED AREA (Time required: 3 hours)

Session Outline

❑ **Aim:**

The ability of a CSO to develop management strategies, policies, plans and procedures at the organisation's level for accountable disaster management and response

❑ **Learning outcomes:**

By the end of the session participants will (be able to)

- Effectively explain the requirement of data management system that provides timely, simple; gender disaggregated data and accurate data on disaster (pre; during and post)
- Enhanced knowledge to analyse the situation not only in quantitative data but also in qualitative data
- Able to identify different needs to respond to different group of people effectively
- Effectively develop skills to present data & situational report to influence government and other stakeholders for decision-making processes and policy advocacy
- Familiarization of government SoS & D Forms (damage Assessment)

Methodology

Title	Slide and Learning	Mins	Activity (including timings)	Arrangement	Resources
Learning Outcomes	1	10	- Introduce learning outcomes. By the end of the session you will be able to....	Presentation	Laptop, and projector
What is a needs assessment	1-3 Effectively explain the requirement of data management system that provides timely, simple; gender disaggregated data and accurate data on disaster (pre; during and post)	60	Introduce to - Effectively explain the need for and different types of needs assessment of affected population particularly women; - Use a variety of sources to complete as full a needs assessment as possible. - Consider the key practical elements of carrying out a need's assessment. - Carry out a needs assessment that is based on key principles and ethics	Presentation & Discussion	Laptop, and projector Flipchart and Marker Pen
Key aspects of Procurement	4-8 • Enhanced knowledge to analyse the situation not only in quantitative data but also in qualitative data • Able to identify different needs to respond to different group of people effectively • Effectively develop skills to present data & situational report to influence government and other stakeholders for decision-making processes and policy advocacy	50	- Introduce to Consider the key practical elements of procurement	Presentation Discussion & group exercise	Laptop, and projector
Key aspects of volunteer data management	9-18 Effectively develop skills to present data & situational report to influence government and other stakeholders for decision-making processes and policy advocacy	50	- Introduce to tools for volunteer data management as first responders	Presentation Discussion & group exercise	Laptop, and projector

Learning Outcomes 7 questions	Reflection cards	10	- Refer to the learning outcomes	Presentation & Plenary discussion	Laptop, and projector
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WHY DO WE NEED TO DO A NEEDS ASSESSMENT?

- To know more about a situation/ scale of the problem (numbers affected and size of the affected area)
- To know what is needed by affected populations/ different groups (priority life-saving interventions)
- To know if it is feasible to work in the area (access/security)
- To decide what your organization can do in a specific situation, and plan how to achieve that
- To contact local authorities, affected populations and identify entry points
- To decide what an organization cannot do in a specific situation

DIFFERENT TYPES OF ASSESSMENT

- Rapid assessment
- Situation / Needs assessment
- Continual assessment

RAPID NEEDS ASSESSMENT

- Fast collection and analysis of situational and immediate needs information to help plan the response.
- It can involve as few as 2 people, for 2 hours or 2 days, or a week
- Teams feed information back to base, and proposals are put to donors on the basis of a day by day conversation with the teams.

DETAILED NEEDS ASSESSMENT

- Sector-specific assessments, segregated data; more specific for key areas of intervention
- Focused target for interviews
- In-depth focus groups
- Looking further at agency mandate & the value add for long term programmes
- Primary Nutrition assessment and primary Morbidity and mortality surveys
- More in-depth discussions with secondary actors, or government departments
- Better context and trend analysis completed
- Report is published externally and internally

WHAT MAKES A GOOD ASSESSMENT?

- Decide why you want to conduct the assessment
- Determine what data is already available

- Figure out what other information you need
- Decide what methods you'll use for gathering information
- Decide whom you'll gather information from
- Decide who will collect data
- Decide how you'll reach your informants
- Decide who will analyse the data and how they'll do it
- Plan whatever training is needed
- Decide how you'll record the results of the assessment and present them to the community
- Decide who will perform what assessment tasks
- Present the plan, get feedback, and adjust it to make it more workable
- Create a timeline

TWO BROAD TYPES OF DATA

Primary Data

- Generally collected directly by the assessment team

Secondary Data

- Data already at the team's disposal including information on needs, resources, conditions, context, organisations already present, action already undertaken, etc.

SOURCES OF PRIMARY DATA

- Interviews with community leaders (men and women)
- Interviews with local authorities; Govt, UN etc
- Discussion with other NGOs
- Teachers, hospital workers, traders, other relevant actors
- Observation and verification
- Focus Groups
- GPS coordinates and description of key facilities including, schools, hospitals etc

SOURCES OF SECONDARY DATA

- News media
- Research reports
- Programme reports

- Personal and professional contacts
- Government statistics/ surveys
- Satellite data
- Internet
- Maps
- Meteorological data

ASSESSMENT PRINCIPLES

- Consult the people affected., in their own language.
- Consider the needs of different groups and individuals.
- Consider the reliability of information.
- Consider bias.
- Seek out marginalized groups and ensure that their interests are considered.
- Look for changes and trends that affect society.
- Look out for the unexpected.
- Consider the impact of certain issues on society.
- Throughout the assessment, think about how the information will be used.
- Time field visits carefully.

OTHER IMPORTANT INFORMATION TO REMEMBER

- To have a set of phrases for who you are and what your organisation does.
- Never promise anything – not even that you will come back – always make clear that you are doing an assessment
- If possible, ensure you have a mixture of men and women, technical and generalist staff on your team
- Use a multi-sector tool
- Collect all data and decide what is useful later.
- Talk to other agencies and make a gap analysis, what do people need.

HOW DO YOU PREPARE FOR A NEEDS ASSESSMENT?

- Pre- departure security assessment, communications plan, and lost communications plan
- Plan of who is going where, and meet to share information to maximise this
- Look at Government facilities in the area, and any existing social structures, women’s groups, community leaders, ensure you follow local protocols,

- Observation of the area if 80% of shelters have been destroyed, you do not need to ask if people need shelter, but may need to find out how many families are living in existing areas of shelter...

HOW TO CONDUCT AN INDIVIDUAL INTERVIEW

Do's:

- Make sure you have a good translator
- Meet locate elders, explain who you are and what you are doing and ask their permission to interview
- Try to prioritise women and children, other vulnerable groups
- Try to interview at least 3 families in each location
- Include people at the edge of the camp
- Avoid large crowds following you around

OTHER ISSUES

- Security
- How much of the affected area can you access?
- Can you respond and assess?
- Are there also gender issues regarding access?
- What is the size of the assessment team? Who is in it?
- Make sure that monitoring systems are in place- financial, logistics, reporting
- Access reliable baseline demographic data
- Take cameras where possible for communications, but be sensitive
- Who has already been to that area?
- Observer/assessor/informant bias
- Always think about how it would feel to you

Group Work

- What planning will you undertake before the trip: what do you need to know, and what do you need to take?
- What does your organisation do; how will you introduce yourselves and who will you speak to?
- What are your "information goals"?
- How will you achieve those?
- What other topics do you need to find out more about?
- What will you say to people who ask you for assistance at the scene of the disaster?

Hand Outs

- Familiarization of government SoS & D Forms (damage Assessment)
- Example of good situational report
- Rapid needs assessment format
- SOS and D form

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