

Summary Report

Community Risk Assessment (CRA) with SADDD Approach in selected Union Parishads



Date: May 2022

Submitted by:



Bangladesh Centre for Advanced Studies (BCAS)

Supported by:

UN-Women



CRA Team

1. Dr. Dwijen Mallick
Fellow, BCAS
2. Shekhar Kanti Ray
Senior Research Officer, BCAS
3. Tofayel Ahmed
Senior Program Officer, BCAS
4. Shamima Ishrat Rita
Senior Research Officer, BCAS
5. Syeda Amirun Nuzhat
Senior Program Manager, BCAS
6. Jebunnahar Ahmed
Program Manager, BCAS
7. Dil Meher Banu
DTP In charge, BCAS

Pictures on the cover page:

On the left- Teknaf Sadar Union Parishad, Cox's Bazar.
On the right- FGD with women in Raniganj, Kurigram

Table of Contents

1. Introduction	2
1.1 Background and Objectives	2
1.2 Reivew of Existing Polices and Gap Analysis	2
1.3 Selection of Field Study Areas.....	3
1.4 Methods, Tools and Challenges of Participatory Research	4
1.5 The Structure of the Report.....	5
2. Climate Disasters, Impacts and Vulnerability Analysis	6
2.1 Regional Key Disasters:.....	6
2.1.1 Central Flood Plain Region:.....	6
2.1.2 Northern Region.....	6
2.1.3 South East Coastal Region.....	7
2.1.4 South West Coastal Region	7
2.2 Disaster Risk and Vulnerability of Women and Socially Disadvantaged Groups.....	8
2.3.1 Livelihoods, Employment, Earnings and Food Security	8
2.3.2 Water, Health and Sanitation	9
2.3.3 Educationa and Child Protection	11
2.3.4 Disaster Preparedness, Shelter and Early Warning.....	12
2.3.5 Knowledge and Skill for Comprehensive Disaster Management.....	13
2.3.6 Social Protection, Coping Strategies and Existing Institutional Supports.....	14
3. Gender Responsive CCA-DRR Strategies and Local Plans	15
3.1 Sectoral Adaptation Strategies	16
3.1.1 Livelihood, Employment, Earnings and Food Security	16
3.1.2 Water, Health and Sanitation	16
3.1.3 Education and Child Protection	17
3.1.4 Disaster Preparedness, Shelter and Early Warning.....	17
3.1.5 Skill and knowledge on Comprehensive Disaster Management.....	17
3.2 Adaptation Needs of Women, Children, Elderly Persons, PwD and Disadvantage Communities	18
3.3 Shelter Management for Protection and Social Safeguarding of Poor Women, Girls, PwD and Disadvantaged Communities	19
3.4 Participation of Youths in disaster management and gender equity initiatives	19
3.5 Protection of Women against GBV during and after climate disasters	19
3.6 Participation of Women in Local Disaster Management and Decision-Making Process.	19
3.7 Inclusive Disaster Preparedness for Reducing Gender Disparities and the Role of Stakeholders	20
3.8 Local Level Gender Responsive CCA&DRR Plans.....	20
4. Conclusion and Recommendations	20
4.2 Recommendations:.....	21
References:	23
Annexure:	
Annex-1: Local Gender Responsive Adaptation and DRR Plan	

1. Introduction

1.1 Background and objectives

Climate change impacts have increased disaster risks and vulnerability in Bangladesh especially for women, children, elderly persons, persons with disabilities (PwD) and disadvantaged communities. The key factors include local social structure, patriarchal values and mindset, poverty and inequity, social position and status of women and low level of literacy and lack of awareness. The needs of disadvantaged communities are not properly reflected in the existing adaptation and disaster risk reduction plans. In this context, Bangladesh Centre for Advanced Studies (BCAS) initiated a study supported by UN Women to identify climate disaster risks in the community. This study would help prepare gender responsive adaptation and disaster risk reduction (DRR) plans for poor women, children, elderly persons, and disadvantaged communities. The main objective of the study was to help include concerns of poor women, persons with disabilities (PwD) and socially disadvantaged communities into the existing Community Risk Assessment (CRA) reports of selected union councils in the poorest, climate vulnerable areas. The CRA studies were conducted with participatory rural appraisal (PRA) tools. The local climate change adaptation (CCA) and disaster risk reduction (DRR) plans were prepared at the union level with active participation of the representatives of the union councils, vulnerable groups, and local NGOs with some guidance of the Department of Disaster Management and relevant government officials at the sub-districts. It is expected that this CRA revision initiative will lead to gender responsive adaptation and DRR in the selected UPs.

The study followed SADDD (Sex, Age and Disability Disaggregated Data) approach to identify disaster risks and vulnerability of poor women and socially marginalized groups. The SADDD approach was also used for adaptation and DRR plans that would better suit vulnerable women, girls, and disadvantaged communities. The active participation of the poor, women leaders, and local stakeholders in CRA revision helped local government, NGOs, and community leaders to take the right decision for enhancing gender responsive and pro-poor CCA and DRR actions that may support and safeguard the poor women and vulnerable groups during and after climate disasters in the localities.

Key objectives of the CRA study:

- Enable government officials and other stakeholders to generate, analyse and use of sex, age, social status, and diversity disaggregated data
- Influence and sensitize policy makers and stakeholders to integrate sex and age disaggregated data into climate change and DRR actions and policies
- Demonstrate successful implementation of gender responsive adaptation plan
- Produce Community Risk Assessment (CRA) Tools and Risk Reduction Action Plans (RRAP) revisited across the project districts and upazilas
- Create evidence-based recommendations on how the SADDD benefits the marginalized, poor, and socially excluded women.

1.2 Review of existing policies and gap analysis

Government policies and strategies have provided guidance for implementation of women friendly adaptation and DRR activity. These include National Women Development Policy (2011), National Plan for Disaster Management (2016-20) Disaster Management Act (2012), Standing Orders on Disasters (SOD, 2019), Bangladesh Climate Change Strategy and Action Plan (2009), National Adaptation Program of Action (NAPA-2005/2009). These policies and strategies educated the suggested measures to reduce disaster risk and vulnerability of women and disadvantaged communities. The key measures included enhanced disaster preparedness skill and knowledge of women,

rehabilitation of children and women, due recognition of women's and disadvantaged communities' contribution to the disaster management activities and inclusion and effective participation of women in local level disaster management committees. The existing CRA reports are significantly constrained by the absence of proper analysis and recommendations regarding climate risk and vulnerability of the local communities, which this study aims to address through gender responsive adaptation plans.

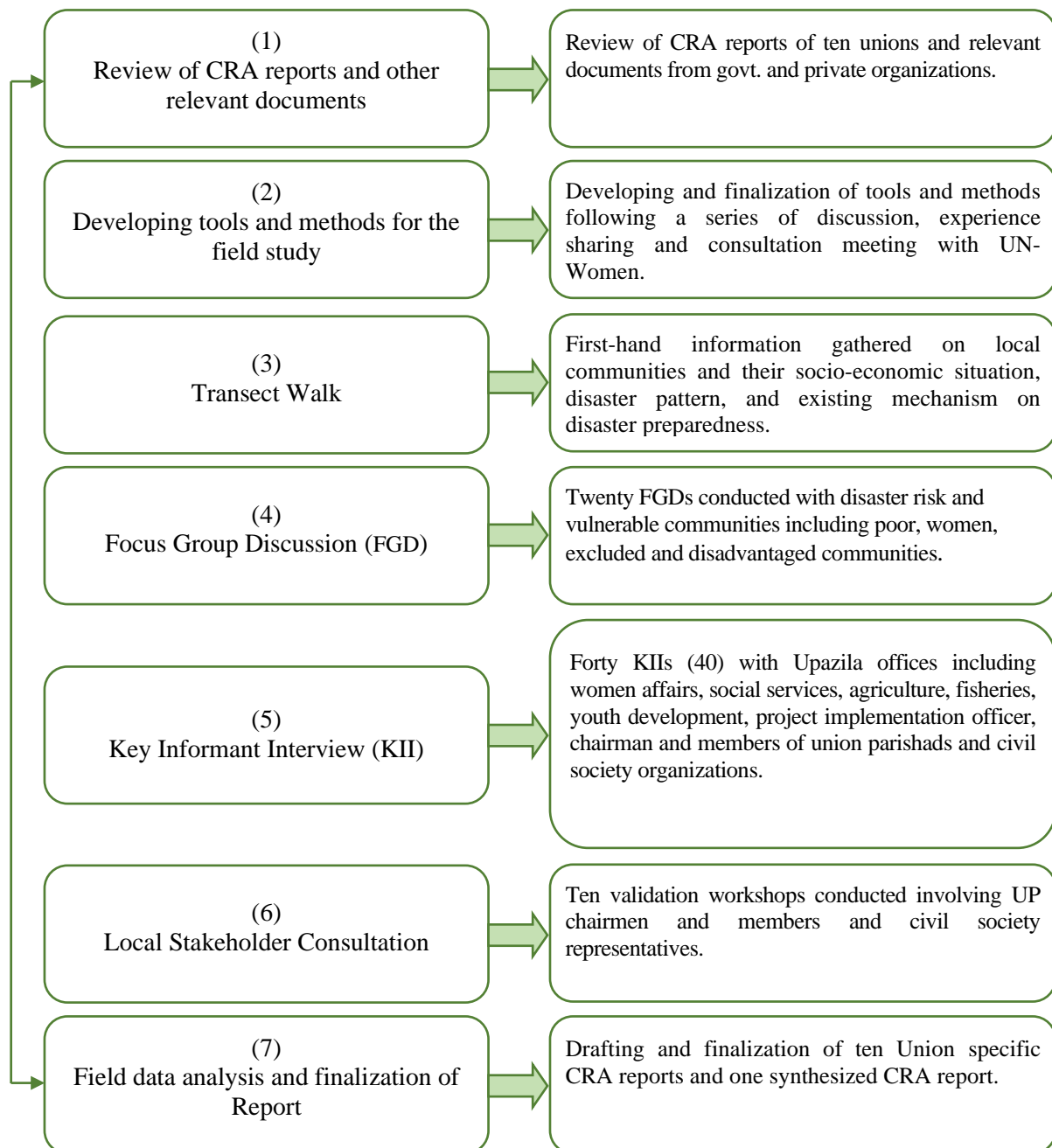
1.3 Selection of field study areas

Ten unions from four ecosystems were selected based on geophysical location, socio-economic situation of local communities, poverty situation, occupation, level of climate vulnerability and transport and communication system.

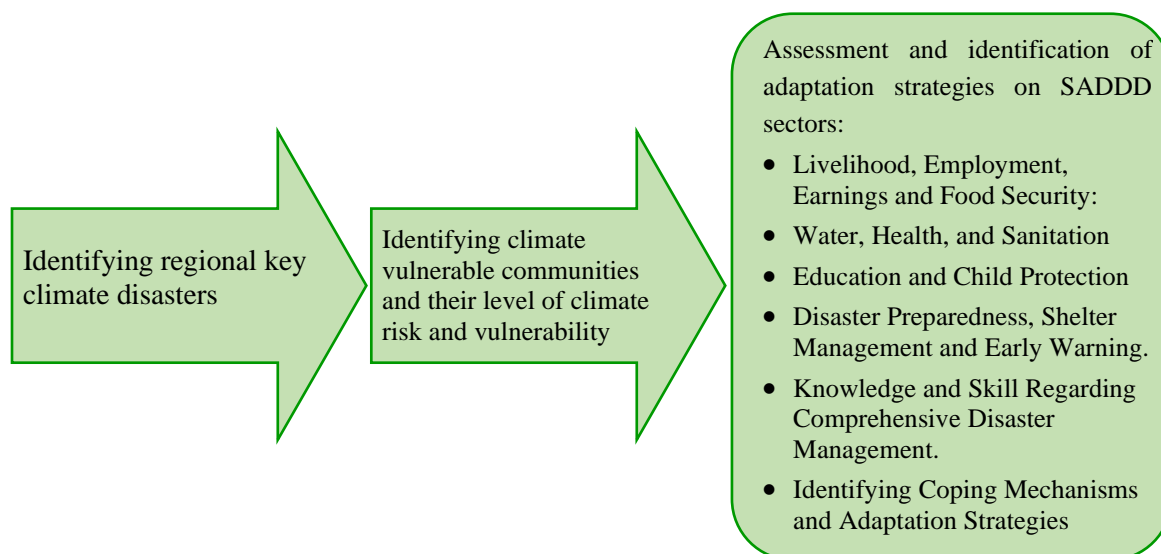
District	Upazila	Union	Vulnerability	
			Socio-economic situation and occupational groups	Disaster risk and vulnerability
Jamalpur	Islampur	Palbandha	Poor, landless, sharecroppers, wage earners and marginal farmers	severe impact of flood, river erosion (Jamuna and Brahmaputra River basin) and drought.
	Dewanganj	Chikajani		
Kurigram	Sadar Upazila	Panchgachi	Poor, landless, sharecroppers, wage earners, fishermen and marginal farmers	severe impact of flood, river erosion (Teesta and Dharola river basin)
	Chilmari	Raniganj		severe impact of flood, river erosion (Teesta and Brahmaputra River basin)
Cox's Bazar	Chokoria	Konakhali	Poor, landless, sharecroppers, wage earners, fishermen and marginal farmers	cyclone, severe impact of flood, river erosion (Matamohuri river) and hilly flood.
	Teknaf	Teknaf	Poor, landless, fishermen, distorted social situation due to the presence of Rohingya refugee and drug peddlers.	hill slide, cyclone, salinity, and lives and livelihood of local communities are highly affected by salinity and water surge.
Satkhira	Shyamnagar	Burigoalini	Forest dependent communities, fishermen, landless, occupational crisis among the communities.	cyclone, salinity, high tide and sever impacts of river erosion on lives and livelihoods of poor and forest dependent communities.
	Kaliganj	Kushulia	Poor and marginal farmers, seasonal migration in search of job employment.	Water logging, cyclone, salinity, and severe impacts of river erosion on lives and livelihoods and infrastructure.
Khulna	Koyra	Koyra Sadar	Forest dependent communities, fishermen, landless, and occupational crisis among the communities.	cyclone, salinity, high tide and houses, assets and infrastructures are damaged in river erosion.
	Dacope	Pankhali	Excluded communities (Rishi community who live on govt. land and make earning by preparing and selling of bamboo and cane made artefacts), social discrimination and poverty.	High tide, river erosion, Cyclone, severe impacts of salinity on lives and livelihood.

1.4 Methods, tools, and challenges of participatory research

The study followed these methods and steps.



Approach & Steps of CRA Study in the Light of SAGDD Framework



Disaster risks and vulnerability of women, men, persons with disabilities, elderly persons and children of disadvantaged communities have been identified in focus group discussions (FGD) through hazard identification and prioritization and preparing hazard and livelihood calendars. Local adaptation options were identified based on FGD and KII findings. The study followed SAGDD (Sex, Age and Disability Disaggregated Data) approach for analysing disaster risk and vulnerability and identifying adaptation options. Gender differentiated impacts of climate change in context of man and women, age, persons with disabilities, children and elderly persons has been analysed based on FGD and KII findings. Data and information from the field study have been triangulated and analysed. The area specific CRA reports have been prepared based on study findings. Finally, a synthesized CRA report has been developed based on the area specific CRA reports.

The Challenges

Field studies were barred in several times due to travel restriction during lockdown. Without the support of local partner organizations, it would have been very difficult to complete the field work with the local communities and concerned stakeholders. In some places FGD participants were more than the required numbers which suggest the poverty situation of vulnerable section due to lockdown. They were very eager to speak about their situation and possible supports from the concerned institutions.

1.5 Report structure

The report contains four chapters as follows:

- (a) Introduction, selection of field study areas and methods, tools, and challenges
- (b) Climate disasters, impacts, and vulnerability analysis
- (c) Local gender responsive adaptation and DRR plan
- (d) Conclusion and recommendation

2. Climate disasters, impacts, and vulnerability analysis

2.1 Regional Key Disasters

Key climate hazards of respective unions have been prioritized based on the findings of focus group discussion (FGD), key informant interview (KII) and local level validation workshops. Hazard prioritization has been conducted following three criteria which included: frequency and intensity of disasters, areas impacted by the disasters and the level of disaster impacts.

2.1.1 Central Flood Plain Region:

Union	Hazard Ranking								
	1	2	3	4	5	6	7	8	9
Palbandha (Jamalpur)	Flood and river erosion	Severe cold and fog	Drought and heat wave	Nor' wester	Hailstorm	Thunderstorm	Excessive rainfall and water logging		
Chikajani (Jamalpur)	Flood	River erosion	Drought and heat wave	Nor' wester	Severe cold and fog	Excessive rainfall	Water logging	Thunderstorm	Corona

River erosion and flood are the two key disasters of Jamalpur district. Other key disasters are severe cold and dense fog; excessive rainfall and water logging; drought and heat wave, nor'wester, and thunderstorm. Lives and livelihood of local people specially the poor, disadvantaged and vulnerable communities are immensely affected by flood and river erosion.

2.1.2 Northern Region

Union	Hazard Ranking							
	1	2	3	4	5	6	7	8
Panchgachi (Kurigram)	Flood and river erosion	Drought and heatwave	Severe cold and fog	Nor' wester	Corona	Excessive rainfall	Thunderstorm	Water logging
Raniganj (Kurigram)	Flood	River erosion	Drought	Nor' wester	Severe cold and fog	Excessive rainfall	Water logging	Corona

Flood and river erosion have been identified as the two key climate disasters for Kurigram district. Nor'wester, drought and heat wave, excessive rain and waterlogging have been other key disasters for Panchgachi and Raniganj unions of Kurigram Sadar Upazila and Chilmari Upazila.

2.1.3 South East Coastal Region

Union	Hazard Ranking									
	1	2	3	4	5	6	7	8	9	10
Teknaf Sadar Union (Cox's Bazar)	Cyclone and water surge	Salinity	Hill slide, excessive rainfall	Corona	Ground water depletion	Temperature rise				
Konakhali Union (Cox's Bazar)	Cyclone and water surge	Flood	River erosion	Excessive rainfall	Nor' wester	Salinity	Water logging	Drought	High tide	Corona

Cyclone and water surge are the two major disasters that have profound impact on the lives and livelihoods of local communities. However, the poor and disadvantaged sections of Konakhali union in Chokoria sub-districts are affected by multiple disasters due to the adjacent Matamuhuri river. On the other hand, fisherman, and disadvantaged communities in Teknaf Sadar sub-district mostly suffers for salinity and hill slides. The people of both unions are affected by flash floods.

2.1.4 South West Coastal Region

Union	Hazard Ranking						
	1	2	3	4	5	6	7
Burigoalini (Satkhira)	Salinity	Cyclone and water surge	River Erosion	Temperature rise	High tide	Excessive rainfall	Corona
Kushulia (Satkhira)	Salinity	Cyclone and water surge	River Erosion	Excessive rainfall and water logging	Temperature rise	Erratic rainfall	Corona
Koyra Sadar (Khulna)	Salinity	Cyclone and water surge	River Erosion	Excessive rainfall	Erratic rain	Corona	Thunderstorm
Pankhali (Khulna)	River Erosion	Cyclone and water surge	River Erosion	High tide	Excessive rainfall	Corona	

Salinity intrusion in soil and water has been the key climate disaster in all four unions of Khulna and Satkhira districts. Cyclone and water surge have been other key disasters followed by excessive rainfall and water logging; and temperature rise and drought; high tide and water surge. Water surge and river erosion are the two major disasters for Rishi communities of Dacope Upazila and forest dependent communities in Koyra and Shyamnagar Upazila since most of them live in near the embankment which is highly exposed to these disasters.

2.2 Disaster risk and vulnerability of women and socially disadvantaged groups

The major factors and drivers behind risk and vulnerability of poor women and disadvantaged communities include existing unequal social structure, discrimination, patriarchal values and practices, poor transport and communication, family burden, discriminatory social values, and poverty.

2.3 Climate change impacts and growing vulnerability of the women & socially marginalized groups (in key SADDD Sectors)

2.3.1 Livelihoods, employment, earnings, and food security

Jamalpur and Kurigram

Jamalpur and Kurigram are both poverty ridden districts where poor women from disadvantaged sections are engaged in mostly farm labour and some non-farm labour which are susceptible to flood, river erosion, excessive rainfall and water logging. These recurring disasters affect their assets and houses from which they seldom recover. When male members venture out looking for work, the entire household and its needs are left on the female members to shoulder. The financial losses of women are immense since their homestead vegetable gardens, poultry and ducks and savings are either damaged or eroded. The women, children, elderly persons suffer from food crisis during flood.

Union	Hazard	Impact of Disaster
Palbandha, Chikajani, Panchgachi and Raniganj (Jamalpur and Kurigram)	Flood	<ul style="list-style-type: none"> • Aman paddy gets damaged and the day labourers in agriculture sectors lose employment opportunity. • Around 60% families face hardship in managing fodder and feed for their cattle and poultry and they are forced to sale those at cheap price. • Homestead gardening get flooded which has always been an important source of income for women. • Affected women are not properly provided with incentives to recover their losses.
	Drought and heat wave	<ul style="list-style-type: none"> • Around 60% summer crops (rice, jute, and chili) get damaged due to lack of proper irrigation. • Women vegetable growers incur losses.
	Severe cold and fog	<ul style="list-style-type: none"> • Women wage earners face physical stress in wage earning works.

Cox's Bazar

The wage earners, day labourers and fishermen are mostly engaged in fishing. Some are engaged in rickshaw or cycle-van drivers, some collect firewood, some work in salt production and fish drying and processing. The livelihoods of these coastal communities are badly affected by cyclones and storm surges. The women are also directly and indirectly engaged in these activities which are vulnerable to floods, cyclones, hill slides and other natural calamities. Cyclones usually happen in June-July and November-December while hill slides, excessive rainfall and water logging happens in June-October. During these periods the marginal groups face food crisis, and it becomes acute for the

female members, children, elderly person, and persons with disabilities. In addition to natural disasters, there are some social factors with huge impacts. These include:

1. Influx of Rohingyas shrinking job opportunities
2. Drug trace hampering women's security and safety
3. Poor literacy rate
4. Conservative society and patriarchy

Union	Hazard	Impact of Disasters
Konakhali and Teknaf Sadar union (Cox's Bazar)	Cyclone, water surge, and salinity	<ul style="list-style-type: none"> • Around 70% of Aman paddy fields get severely damaged. • Homestead vegetable gardens get destroyed in salinity. • Women fishermen face the occupational crisis.
	Groundwater depletion	<ul style="list-style-type: none"> • Summer crops and homestead vegetable cultivation become very difficult.

Khulna and Satkhira

The poor women, forest-dependent groups, and disadvantaged communities are typically engaged in shrimp and crab farms. The women of Rishi communities in Dacope earn from bamboo and cane artefacts. Cyclone and water surge in June-July and November-December badly affect their livelihoods destroying the shrimp and crab farms, houses, and assets of poor families and disrupting road communications. The women of Rishi communities and forest-dependent communities face hardship in selling their products during these times.

Union	Hazards	Impact of Hazards
Burigoalini and Kushulia union (Satkhira) & Koyra Sadar and Pankhali union (Khulna)	Salinity	<ul style="list-style-type: none"> • Less production of Aman paddy due to salinity in soil and water. • Shrimp and crab farms are devastated by the spread of viruses in shrimp farms.
	Cyclone and water surge	<ul style="list-style-type: none"> • Around 80% of marginal farmers lose their crops. • Around 70% of fishermen's families face occupational crises. • Fodder crisis for livestock
	Excessive rainfall and water logging	<ul style="list-style-type: none"> • Women of poor families cannot sell their products.

2.3.2 Water, health, and sanitation

Jamalpur and Kurigram

Destruction of drinking water sources and latrines by flood, river erosion and water logging poses serious health risk to particularly those who have to stay at home during floods. Severe cold during December-January also creates health and respiratory problems for women, children, the elderly, and persons with disabilities. Labourers find it difficult to work at the height of winter. The disaster and post disaster situation triggers mental stress for women and girls. Please see the following table.

Union	Hazards	Impact of hazards
Palbandha, Chikajani, Panchgachi and Raniganj (Jamalpur and Kurigram)	Flood	<ul style="list-style-type: none"> • Around 90% people are deprived of safe drinking and clean water. • Spread out of diarrhoea and water borne diseases. • Community people are deprived of essential medical treatments.
	Heat wave and drought	<ul style="list-style-type: none"> • Wage earners, pregnant and elderly women suffer from dehydration, dysentery, and skin diseases.
	Water logging	<ul style="list-style-type: none"> • Women are to stay in a waterlogged environment. They cannot go outside. Defecation, bathing, and menstrual cleanliness are severely affected.

Floods are such that they force difficult choices. A mother was swimming through the flood water with her kids. At one stage, she saw her son needed help and she let go of her daughter and saved her son. This left her with lifelong trauma.

Union Social Welfare Worker, Upazila Social Services Office, Sadar Upazila, Kurigram

Cox's Bazar

Fresh water sources and latrines in the southeast coastal region get mostly damaged in cyclones and water surges posing high health risks for women, girls, elderly persons, and persons with disabilities. In this situation, women and girls use latrines around the neighbourhood which increases their chances of sexual harassment.

Union	Hazards	Impact of Hazards
Konakhali and Teknaf Sadar Union (Cox's Bazar)	Cyclone, water surge, and salinity	<ul style="list-style-type: none"> • Crisis of fresh and safe water for drinking and bathing. • Women and girls find it difficult to maintain cleanliness during menstruation.
	Flood	<ul style="list-style-type: none"> • Women, girls, and persons with disabilities cannot use latrine properly and comfortably. • Child death in flood water.

Khulna and Satkhira

Salinity has grave impacts on the physical and mental health of women:

1. Badly affects sexual and reproductive health
2. Increases the instance uterus cancer, eclampsia, and skin diseases
3. Combined with river erosion, cyclone, water surge and waterlogging, salinity is gradually increasing disaster risks for women and girls.

Financial burden in absence of male members also makes women mentally weak and devastated. They borrow money and are forced to repay it while still in crisis.

Union	Hazards	Impact of Hazards
Burigoalini and Kushulia union (Satkhira) & Koyra Sadar and	Cyclone, water surge and salinity	<ul style="list-style-type: none"> • Fresh and safe water crisis hinders menstrual cleanliness for women and girls. • Persons with disabilities, elderly person and pregnant women suffer from diseases. • Use of saline water deteriorates women's health.

Union	Hazards	Impact of Hazards
Pankhali union (Khulna)	Excessive Rainfall	<ul style="list-style-type: none"> • Women, girls, children, and elderly persons are affected in water borne diseases.

2.3.3 Education and child protection

Jamalpur and Kurigram

Poor students, especially girls, cannot continue their school during flood. Their attendance in school also declines and in many cases their studies stop altogether as they are married off. The incidence of child marriage increases during disasters.

Union	Hazards	Impact of Hazards
Palbandha, Chikajani, Panchgachi and Raniganj (Jamalpur and Kurigram)	Flood	<ul style="list-style-type: none"> • Schools remain closed during flood and students stay at their homes.
	Severe cold and fog	<ul style="list-style-type: none"> • Girl students refrain from going to school in fear of insecurity during severe cold and dense fog.

Cox's Bazar

Literacy is poor in the two study unions and elsewhere in Cox's Bazar because of conservative society, religious fundamentalism, patriarchy, Rohingya refugees, drug peddling, unemployment, and poverty. All these factors adversely affect women's advancement and aggravate their vulnerability during disasters.

Union	Hazards	Impact of Hazards
Konakhali and Teknaf Sadar (Cox's Bazar)	Cyclone and water surge	<ul style="list-style-type: none"> • Students cannot continue their studies as the educational institutions remain closed during flood.
	Excessive rainfall	<ul style="list-style-type: none"> • Girl students' education gets disrupted due to bad communication system.

Khulna and Satkhira

Poor girls face significant challenges during disasters. It becomes particularly difficult for them to continue school. Many are forced to drop out and get engaged in household work or get married.

Union	Hazards	Impact of Hazards
Burigoalini and Kushulia unions (Satkhira) & Koyra Sadar and Pankhali unions (Khulna)	Cyclone and water surge	<ul style="list-style-type: none"> • Disrupted road communication forces students to stay at home.
	Excessive rainfall	<ul style="list-style-type: none"> • Women, girls, children, and elderly persons suffer from water borne diseases.

2.3.4 Disaster preparedness, shelter, and early warning

Participatory research has found that disaster preparedness is weak in every study location. The conditions of shelters are not good or congenial for women, girls and PwD in most of the study unions. They also do not get early warning in right time. Further, the women are to look after their family members including children, persons with disabilities and elderly persons which forces them to stay at home instead of going to safe place. In addition to this, 100% of respondents from field study opined that, shelters are not women-friendly, which is another reason for their less interest in going to the shelters.

Jamalpur and Kurigram

The shelter on the school premise at Sirajabad village in Palbandha union of Islampur Upazila (Jamalpur) is very old and remains closed most of the time. During flood the stairs become submerged and are inaccessible, especially to women, children, and persons with disabilities.

The existing shelters of Chikajani union in Dewanganj Upazila (Jamalpur) are inadequate compared to local demand and the situation is same in Panchgachi union of Kurigram Sadar and Raniganj union of Chilmari Upazila, both in Kurigram district. The disrupted road communication and distance discourage local communities to go to the shelters.

Women, children, persons with disabilities, and excluded communities lack knowledge and skill in disaster preparedness because of inadequate institutional support, local power politics, poor literacy, poverty, and gender disparity.

Union	Hazards	Impact of Hazards
Palbandha, Chikajani, Panchgachi and Raniganj (Jamalpur and Kurigram)	Flood	Around 90% roads are affected. Movement of persons with disabilities, elderly persons, girls, and women becomes restricted. Women hardly flood early warning messages timely and properly which increases their risk and vulnerability. Women, children, elderly persons, and persons with disabilities are affected badly due to inadequate shelters.
	River erosion	Around 20% of local communities are affected by river erosion.

Cox's Bazar

Conservative society, discriminatory values and patriarchy stand against women's movement outside their homes. Because of this, women are deprived of information and knowledge regarding early warning, market, climate resilient livelihoods, health, and disaster preparedness.

Union	Hazards	Impact of Hazards
Konakhali and Teknaf Sadar Union (Cox's Bazar)	Cyclone, water surge and salinity	During disaster pregnant women cannot be taken to hospital. around 90% people of this area lack education. They are deprived of health awareness and medical services. In last five years a total of ninety-two (92) pregnant women were died of pregnancy and childbirth related complications." <i>Opinion of women in FGD at Konakhali union, Chokoria.</i>
	Hill slide	Asset and houses of poor communities are destroyed in excessive rainfall induced hill slides.

		Poor, landless, and disadvantaged families have to live near hills as they have hardly any other options.
--	--	---

Khulna and Satkhira

Disaster risk of pregnant women is higher than others as they are deprived of proper support to reach safety during disasters. Widows living around the Sundarbans forest whose husbands were killed by tigers are discriminated against. Women of poor and disadvantaged sections also suffer from mental ordeals during and after disasters.

Women, elderly persons, children, and persons with disabilities lack proper knowledge and skill regarding disaster management because of remoteness, poor communication, poverty, and gender discrimination.

Union	Hazards	Impact of hazards
Burigoalini and Kushulia union (Satkhira) & Koyra Sadar and Pankhali union (Khulna)	Cyclone and water surge	<ul style="list-style-type: none"> Houses and roads are affected. Persons with disabilities, elderly persons and pregnant women face difficulties in free movement. Long distance discourages local communities to take shelter in cyclone shelters.
	River erosion	<ul style="list-style-type: none"> Houses and crop lands are lost to river. Embankment gets collapsed and affected. Women and girls cannot move freely. Local communities get early warning from CPP volunteer teams, but they cannot take proper preparedness because of their financial crisis. Moreover, many of them stay at home to look after their livestock and asset.

2.3.5 Knowledge and Skill for Comprehensive Disaster Management

“The participation of women in Union Disaster Management Committee (UDMC) is negligible. They cannot participate effectively or spontaneously because of patriarchy, discriminatory social values, and power politics.”

Findings of FGD and KII

Jamalpur and Kurigram

River erosion victims including women and poor families are deprived of adequate rehabilitation support. UDMC members get training on disaster management but they, especially women, get little scope to apply their knowledge practically. Drowning is another major concern for children in the local communities.

Cox’s Bazar

The poor and hapless communities live at the footsteps of hills after losing their home to river erosion and other disaster. They get evacuation warning from local administration during excessive rainfall and hill slides, but they usually show their disinterest to the warning and stay in their houses to protect their assets. Child death in hill slide is another big concern to the affected families.

Khulna and Satkhira

The poor, forest dependent and excluded communities lack proper knowledge on disaster preparedness and they largely depend on local administration and NGOs to enhance their preparedness skill. They get early warning from CPP volunteers, but they get little time or have little scope to reach cyclone shelters as they must ensure safety of other family members.

2.3.6 Social Protection, Coping Strategies and Existing Institutional Supports

Rehabilitation support is inadequate compared to demand. Moreover, it is mostly availed by the relatives of local power elites. The women are deprived of social safety net support compared to men. The women seldom go outside their house, and this is one of the main reasons behind their inadequate social safety net support. This was found in FGD and KII in Kurigram.

Field research suggests that there has been some progress in social protection measures by the government and NGOs, but the efforts are not adequate compared to the growing demand. The institutional response is also weak in all the study areas.

Jamalpur and Kurigram

Disaster affected women of Jamalpur and Kurigram take out loans and rear goat and poultry. They eat less during disasters and sometimes sell their assets cheaply to make up for the family expenditure.

Cox's Bazar

Women resort to certain common measures to cope through disasters. They store valuable documents in plastic bags during cyclone and water surge, preserve dry food, moveable cooking stoves and firewood, sell poultry cheaply and borrow money. Girls, persons with disabilities and elderly persons stay at home during disasters.

Khulna and Satkhira

Women of affected families manage loans from NGOs and rear poultry and livestock and run fish and crab business to earn some money. However, these strategies hardly sustain in absence of proper support and guidance.

Existing institutional supports and local people's perceptions

Existing institutional supports	Local people's perceptions
Department of Women Affairs	<i>Disaster affected women are not properly provided with social safety net program. Proper distribution of social safety net supports is another big challenge. Social safety net supports only reaches to 20% of the affected people. Women are also deprived of rehabilitation support.</i>
<ul style="list-style-type: none">• Forty days' job employment programme where 40% members should be female.• Training course on tailoring and beautician.• VGD cards for destitute women	
Project Implementation Office	

Existing institutional supports	Local people's perceptions
<ul style="list-style-type: none"> • Rural Infrastructure development program where mentionable number of labourers are selected from women. • Food supports for fishermen families during ban on fishing in sea. • Providing supports to poor and vulnerable communities during cyclone. 	Teknaf Sadar Union. Cox's Bazar.
Department of Social Services	
<ul style="list-style-type: none"> • Allowance for sweeper • Allowance for beggars • Allowance for transgender • Training on Income Generating Activities 	
Department of Agriculture Extension	
<ul style="list-style-type: none"> • Incentive and rehabilitation support in post disaster situation • Training on compost and other Income Generating Activities for women. 	

3. Gender responsive CCA-DRR strategies and local plans

Poor families, women and socially disadvantaged groups adopt certain coping strategies with their limited awareness, resources, and skills. These are not adequate in the face of frequent and devastating climate disasters. The measures that people of poor, marginal and disadvantaged communities undertake to reduce disaster risk and vulnerability are not adequate compared to their needs. These sometimes turn into maladaptation aggravating risks. In the coastal areas, local communities especially women and persons with disabilities drink less water because of water crisis and sometimes are forced to drink saline water due to unavailability of pure drinking water that increases their health risk.

The flood affected communities of north and central region try to recover from disasters on their own since they lack proper information and guidance. As a result, they incur crop loss and in most cases are forced to sell assets and crops very cheaply. Coping strategies of local communities are weak compared to the impact of disasters. They need stronger institutional support to improve their skill and knowledge. Upgrading social safety net and ensuring proper distribution are essential for the betterment of the local communities. Hence, it was urgently felt that there is a need to identify appropriate gender responsive CCA and DRR strategies for the poor and developing local level gender responsive adaptation and DRR plans.

The following sections highlight the current coping and adaptation practices, gaps in adaptation and DRR, as well as the suggested CCA-DRR strategies, which were identified and prioritized by poor women, vulnerable communities, PwD, representatives of the union councils, NGOs, CSOs and government officials at the sub-districts.

3.1 Sectoral Adaptation Strategies

3.1.1 Livelihood, Employment, Earnings and Food Security

Jamalpur and Kurigram

- Increase the height and strength of embankment.
- Training on flood resilient crop cultivation and providing material support.
- Alternative livelihood support for women of poor and vulnerable families.
- Providing support for marketing of women entrepreneurs' products.
- Enhance social safety net for full coverage.
- Training on drought tolerant crops.
- Supporting women for climate resilient homestead gardening with material support.
- Supporting women of poor families in livestock and poultry rearing.

Cox's Bazar

- Training and material support for poor women on modern poultry rearing.
- Providing food and financial support to affected fishing communities.
- Provide lifesaving equipment and compensation to fishermen.
- Training and material support to women to cultivate early variety vegetables.

Khulna and Satkhira

- Training and material support to women on salinity tolerant vegetable cultivation.
- Financial incentives for marginal and poor fishermen.
- Financial and food support for forest dependent communities.
- Training and material support on alternative livelihood for poor women, forest dependent and wage-earning families.

3.1.2 Water, health, and sanitation

Jamalpur and Kurigram

- Enhance health services and increase number of community clinics.
- Preserve fresh water sources and distribute health materials for menstrual health.
- Attention to security and wellbeing of children, elderly and PwDs during flood.

Cox's Bazar

- Distribution of health materials among girls.
- Community clinics and increased health awareness.
- Psychosocial awareness programme for poor and disadvantaged women and girls.

Khulna

- Distribution of water tanks for rainwater harvesting.
- Awareness programme for women and girls and distribution of health materials.
- Awareness among local communities about consequence of salinity induced diseases.
- Improvement of community clinic service.

3.1.3 Education and child protection

Jamalpur and Kurigram

- Increase security measures for girls during flood.
- Arrange boats for students, especially for girls, for transportation to school.
- Enhance security and safety for girls during their school commute through dense fog.

Cox's Bazar

- Designation of separate places for male and female students in cyclone shelters.
- Appointment of teachers for female students from same neighbourhoods.

Khulna and Satkhira

- Measures to prevent child marriage and facilitate schooling of girls during disasters.
- Designation of separate places for male and female students in cyclone shelters.

3.1.4 Disaster preparedness, shelter, and early warning

Jamalpur and Kurigram

- Construction of appropriate shelters for women, children, and persons with disability with separate latrines, water source, and adequate security for women and girls.
- Institutional support for construction of disaster resilient latrines for women, persons with disability, children, and the elderly in poor communities.
- Volunteer groups for early warning dissemination with male and female members.
- Dissemination of early warning message through loudspeakers at mosques.

Cox's Bazar

- Provide support for poor families to construct disaster resilient houses with concrete pillars and walls of corrugated iron sheet.
- Undertaking proper measures to ensure that women, persons with disabilities, elderly persons and disadvantaged communities receive early warning messages.

Khulna and Satkhira

- Formation of women's group in each village to increase women's participation in disaster preparedness programmes.
- Increase number of shelters and ensure that they are suitable and effective for women, elderly persons, and persons with disabilities.
- Inclusion of female members in CPP volunteer teams and enhance their role and active participation.

3.1.5 Skill and knowledge on comprehensive disaster management

Jamalpur and Kurigram

- Strengthen women's role in Union Disaster Management Committee (UDMC).
- Training on disaster management and ensuring participation of representatives from disadvantaged communities in these trainings.

Cox's Bazar

- Taking special care for women, children, persons with disabilities and bringing them to safety during cyclones.
- Awareness programme for local vulnerable communities on discrimination against women, elderly persons, children, and persons with disabilities during disasters.

Khulna and Satkhira

- Strengthen women's role in Union Disaster Management Committee (UDMC).
- Training on disaster risk reduction and disaster management.

3.2 Adaptation needs of women, children, elderly persons and PwD and disadvantage communities

The key adaptation strategies for reducing disaster risk and vulnerability of women, children, elderly persons, persons with disabilities and disadvantaged communities are as follows:

Communities	Adaptation needs
Women (Widow; destitute women of poor, wage earning and fishing communities; pregnant women and lactating mother, and women entrepreneurs)	<ul style="list-style-type: none"> • Construction of cyclone, water surge and other disaster resilient houses for poor and disadvantaged communities. • Construction of women, elderly persons, children and persons with disability friendly community latrines and tube wells. • Awareness programme on reducing social discrimination and taboos. • Provide financial, employment and training support to the river erosion affected women. • Construction of women friendly shelters with proper safety, light, dry food and first aid box in the shelters. • Adopting effective measures to disseminate early warning to women and to ensure women's active participation in Union Disaster Management Committees.
Girls	<ul style="list-style-type: none"> • Boat for transportation of female student during flood. Distribution of umbrella and study materials among them. • Regular counselling, medical treatment, and distribution of health materials for the development of mental and physical health of girls. • Awareness campaign to protect child marriage during Corona pandemic.
Children	<ul style="list-style-type: none"> • Special care for children and persons with disabilities during cyclone and water surge and hill slides and taking them to safe place and shelters. • Awareness programs to protect child death in flood water.
Persons with disabilities	<ul style="list-style-type: none"> • Awareness program at family and community level to reduce unfriendly and indifferent attitude towards persons with disabilities during disasters. • Construction of persons with disability friendly shelters. • Undertaking special study programs for differently able students during disasters.
Elderly persons	<ul style="list-style-type: none"> • Taking elderly persons to safe place during disasters. • Providing warm clothes to protect from severe cold. • Special care for elderly person to protect them from unfriendly and indifferent attitude during disasters. • Take care of safety and health protocols of elderly persons during Corona

Communities	Adaptation needs
	pandemic.
Disadvantaged communities (ultra-poor, socially excluded communities)	<ul style="list-style-type: none"> • Measures for elimination of social discrimination. • Alternative livelihood means for disadvantaged communities. • Upgrading of social safety net programs to hundred percent.

3.3 Shelter management for protection and social safeguarding

The shelters in the study areas are in most cases not suitable for women. Though the number of shelters has been increased, these shelters fail to become suitable and safe for women, girls, persons with disabilities during disasters mainly because of poor maintenance. Women and girls don't feel comfortable using the same latrines. Moreover, the lack of adequate light and water enhances their sense of insecurity. The situation becomes acute for women of disadvantaged communities. If they become victims of sexual harassment in the shelters, they cannot report it to anyone fearing further harassment. It has also been a big challenge to ensure that shelters are suitable for children and disadvantaged communities. Shelters need to be women friendly and to do that, separate space for women, girls, pregnant women, and elderly persons should be ensured. Adequate water supply, light, medicine, and dry food should be preserved in the shelters.

3.4 Participation of youth in disaster management and gender initiatives

In the study areas, lack of proper knowledge and skills regarding disaster management among the youth has been observed. Though there are some awareness programmes from department of women's affairs on gender discrimination, disaster management and other topics, these are inadequate compared to the need. Sometimes they get disaster rescue drills at their schools, but these trainings are not regularly, and they cannot apply their knowledge in practical life. It is important to undertake capacity development programmes for youth on disaster management, gender equity, and comprehensive disaster management. They should also be included in volunteer groups.

3.5 Protection of women against GBV during and after climate disasters

Financial and food crises during and after disasters affect women of poor and disadvantaged communities. During the Covid pandemic, family feuds increased, and women fell victims to domestic violence. Neighbours, and sometimes, union council chairmen and members came to help such victims and resolved the disputes. During disasters, education of girl students is disrupted, and they are either engaged in family work or married off. The CSOs with LGIs should undertake awareness and advocacy against GBV and provide legal support to victims.

3.6 Participation of women in local decision-making process

Generally, women have less mobility, lower voice, and participation in local disaster management at the union and community levels. Participants of FGD sessions opined that women's role in the family's decision-making process regarding disaster management and post disaster rehabilitation activities has increased to some extent. But their decisions are not always implemented. However, women have little access to the community's decision-making process. Men and women of poor families have hardly any idea about ward level needs of union council assessment meetings. Their

participation is low in UDMCs. One female member in an FGD, commented that she participated in one ward level needs assessment meeting but couldn't raise her voice.

3.7 Inclusive disaster preparedness

Social structure, values, ethics, and patriarchy determine the differentiated roles and responsibilities of men and women. In this context, women's disaster preparedness become weaker than men. Social and religious practices and values pose as barriers to women seeking safety in shelters during disasters. Disaster preparedness of women is not adequate which increases their disaster risks more than that of men. Male members of poor families become busy for earning and collecting relief during disasters. On the other hand, women shoulder family matters ranging from attending children and elderly persons to cooking and collecting water. Men have the opportunity for recreation and leisure which women and girls are deprived of. Women are far behind men in receiving disaster information, early warning and eventually become dependent on male members for these services. Sometimes women are forced to do whatever male members consider beneath them. Concerned organizations have important roles in eliminating gender discrimination, adopting gender responsive disaster management, and ensuring social security for women and disadvantaged communities.

- **Local women-led organizations:** Undertaking regular awareness and skill development initiatives at the community level to reduce gender discrimination.
- **Local government institutions:** Undertaking gender responsive adaptation projects, equitable and fair social safety net programmes, and effective dissemination of early warning information, especially the women.
- **Civil society:** Conduct regular discussion and opinion sharing meeting on gender equity. Raise voice for the vulnerable communities in different forums. Invite women representatives and giving them opportunities to raise their voice.

3.8 Local level gender responsive CCA and DRR plans

Based on the mentioned disaster vulnerability and adaptation needs of poor women and disadvantaged groups, the study team has prepared five regional CCA and DRR plans. Adaptation strategies for key SADD sectors have been identified in light of the impacts of local disasters. For example, adaptation and DRR plan that is gender responsive and suitable for children, persons with disabilities and disadvantaged communities in the central flood plains (Jamalpur district) has been ascertained considering impacts of key disasters including flood, river erosion, drought, and cold wave. Concerned government and NGOs have also been identified for implementation of these plans and strategies. The gender responsive adaptation and DRR plans are attached with this report. (Annex)

4. Conclusion and Recommendations

Identification of climate disaster risks and vulnerability of women, children, and elderly persons, persons with disabilities and preparing appropriate gender responsive adaptation and DRR plans have been conducted through CRA study at ten unions of five districts from four ecosystems under EmPower project of UN Women. The study has found some generic hazards which are common to all areas as well as some location specific climate hazards. Generic hazards include temperature rise, drought, heat wave, excessive rainfall, water logging and river erosion. On the other hand, the key locational hazards include flash flood, severe cold, Nor'westers in Jamalpur and Kurigram district, hill slides in Cox's Bazar and salinity and cyclone in coastal areas.

These disasters are increasing in frequency and intensity. Consequently, the level of disaster risk and vulnerability of poor, marginal and disadvantaged communities are also increasing. Disaster loss and damage of women among day labourers, marginal and disadvantaged communities are higher than others. Among the affected women, pregnant women and widows are the worst victims. The disaster risk and vulnerability of women, persons with disabilities, girls, elderly persons, and children are higher than others. The factors which are responsible for their risk and vulnerability include, social structure, local power politics, social norms, patriarchal values and practices and discriminatory mindset and attitude towards women.

The vulnerable communities like women, girls, persons with disabilities and elderly persons lack knowledge, skill, and capability to overcome disaster impacts and consequences. The lives and livelihoods of marginal and disadvantaged communities are severely affected by disasters like flood, cyclone, and water surge. Roads and communication become inaccessible during. Free movement of elderly persons, pregnant women and girls get disrupted. Poor and disadvantaged communities, particularly the day labourers, marginal farmers and Dalits become the most affected. The level of suffering of women, pregnant women, children, girls, elderly persons, and persons with disabilities reaches its peak during disasters. The dearth of food and medical treatment during disasters also wreaks havoc on physical and mental health.

The slow onset events including sea level rise, salinity and temperature rise are increasing huge health risks for local communities and women in particular. Sexual and reproductive health of girls and women are adversely affected. In most cases, local communities can hardly find solutions to slow onset climate disasters. It is important to identify disaster risks of local communities at first and then prepare local adaptation and DRR plans according to their needs and priorities. The LGIs and CSOs have many responsibilities in this context. They should have proper measures to ensure women's safety and security in shelters during disasters. The NGOs and CSOs may have long term programmes promoting climate resilient livelihood, improvement of drinking water sources, health and hygiene systems and enhancing social safety net for the poor women, girls, PwD and disadvantaged groups.

The findings of the CRA studies will be submitted to the relevant union councils and will be followed up by necessary measures for inclusion of selected adaptation options in relevant Annual Development Programmes (ADP). It will be helpful if the CCA-DRR options are implemented by the local actors to reduce disaster risks of poor women and disadvantaged communities. At the same time, it is expected that inclusion of the study findings will substantially contribute to update and improve the existing CRA reports at the local level. Moreover, the study has given emphasis on the role and participation of youths in implementing of gender responsive CCA and DRR for enhancing gender equity. Women's participation and decision making in disaster management initiatives are very important, because it will enhance their capability and reduce their disaster risk. In this context, the role and accountability of local government institutions, NGOs and CBOs should be enhanced, and all stakeholders should work together in a coordinated manner.

4.2 Recommendations

Following is a list of generic and specific recommendations:

Local communities

- Awareness building among local communities, agencies, actors and local government institutions about their roles and responsibilities to mitigate disaster and climate risk.

- Conduct regular maintenance of cyclone shelters with local government institutions.
- Awareness building within family and communities regarding menstrual health during disasters and necessary initiatives to make hygiene materials available.
- Enhance participation in local disaster management committees (UDMC), ward level needs assessment meetings and development plans of unions.

Local development organizations (NGOs)

- Conduct awareness campaigns and training programmes on disaster risk reduction and disaster preparedness for women of poor, marginal excluded communities.
- Undertake awareness and capacity building activities on risk reduction and mitigation with government, private sector, local government, and community representatives.
- Undertake dialogue and awareness programmes with local communities and local government representatives on governance and transparency of social safety net.

LGIs, sub-district administration and extension offices: (Agriculture, fishery, youth development, social services, women’s affairs, LGED, DPHE and Upazila Disaster Management Committee; and the Union Disaster Management Committee)

- Guide and monitor concerned authorities to ensure equal and active participation of women of poor communities in Union Disaster Management Committees.
- Guide and monitor concerned union councils to ensure needs assessment of women.
- Include women’s issues in impact and risk reduction policies of the relevant sub-district offices.
- Coordination among government and NGOs to ensure monitoring and progress on disaster risk reduction projects.
- More allocation to improve environment and cleanliness of cyclone shelters and make them women friendly with adequate amenities and resources.

National level government offices

- Direct and guide concerned government offices to adopt necessary policies and actions to ensure post disaster rehabilitation support (financial, food, clothes, and accommodation) to poor and disadvantaged families.
- Direct and guide concerned district and sub-district offices to allocate more resources for the improvement community clinics so that they can provide better health and psychosocial services to women, children, girls especially from poor families.
- Upgrade social safety net programmes to ensure full coverage with good governance and fully transparency.

UN Organizations (UNDP, UN-Women, FAO, UNICEF)

- Support government initiatives to improve cyclone shelters.
- Material and financial support for girls of poor and disadvantaged families so that their schooling won't be affected during disasters.
- Adopt joint collaborative work with development partners and concerned government ministries and departments to stop child marriage among disaster affected communities.
- Provide support to government initiatives to ensure 100% coverage of social safety net for destitute, widows and pregnant women.
- Adopt joint collaborative programmes with department of women's affairs and other concerned government offices to encourage women entrepreneurship among the poor and disadvantaged communities and facilitation in marketing of their products.

References:

১. প্রশিক্ষণ ম্যানুয়েল/নির্দেশিকা, “দুর্যোগ ঝুঁকি ব্যবস্থাপনা ও জলবায়ু পরিবর্তন অভিযোজনে নারীর সড়ামতা বৃদ্ধি এবং জামতায়ন” (মডিউল-১০), খ্রিস্টিয়ান এইড, বিসিএস এবং ইউএন-উইম্যান, ২০১৯, ঢাকা, বাংলাদেশ।
২. PCVA training manual, *Climate Resilient Ecosystems and Livelihoods (CREL) project*, USAID & Forest Department of Bangladesh, 2013-2018.

Annex 1: Local Gender Responsive Adaptation and DRR Plan for Jamalpur and Kurigram

(a) Livelihood, Employment, Earnings and Food Security (SADDD sectors)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Flood and river erosion, excessive rainfall, waterlogging, Nor'westers and hailstorm	<p>Crop fields are damaged; roads and transport system get disrupted and labourers cannot go looking for work leading to unemployment and financial crisis</p> <p>Homestead vegetable gardening and poultry and duck rearing by women are hampered</p> <p>Women, persons with disabilities and the elderly persons are forced to stay indoors</p> <p>Fishing is disrupted during floods and Nor'westers spell doom for fishing communities</p> <p>Boro paddy and flowering in mango trees are destroyed</p>	<p>Alternative livelihood opportunities for widows, single and destitute women (handicrafts, tailoring, livestock, poultry, and duck rearing).</p> <p>Allocation of adequate social safety allowances for widows, elderly persons, single women, persons with disabilities and disadvantaged communities</p> <p>Initiatives for women friendly agricultural projects to enhance their participation</p> <p>Facilitation in marketing products (agro products, dress) produced by women entrepreneurs.</p> <p>Increasing allowances for elderly persons, widows, persons with disabilities and mothers</p> <p>Machine to harvest paddy timely and efficiently</p> <p>Plantation of native trees around the homestead that may act as a buffer/cushion and protect houses during disasters</p>	<p>Upazila agriculture extension office; Local Government Engineering Department (LGED);</p> <p>Union Parishad; CSOs and local communities; Upazila level govt offices; Department of youth development; Department of Social Services; Department of Women Affairs; and Union Parishad.</p>
Severe cold and dense fog	<p>Seed beds are destroyed</p> <p>Crop production is hampered</p>	<p>Training and material support on cold resilient homestead vegetable cultivation for poor women</p> <p>Availability of vaccination programmes for poultry and ducks</p>	
Drought and heat wave	<p>Crop fields are burnt</p> <p>Crop cultivation is hampered due to lack of adequate irrigation</p> <p>Production loss of Boro paddy, homestead vegetable, and millet cultivation</p>	<p>Awareness of drought resilient crop cultivation to ensure production and prevent food deficiency</p> <p>Awareness of disaster preparedness to prevent food insecurity within the family.</p> <p>Food support from government and NGOs</p> <p>Training for poor women on improved vegetable cultivation techniques.</p>	

(b) Water, Health, and Sanitation (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Flood and River erosion, excessive rainfall, and waterlogging	Crisis of drinking water during flood Women and girls cannot maintain menstrual cleanliness due to lack of fresh water	Awareness on menstrual cleanliness during floods and distribution of health materials among 300 girls at Uttor Sirajabad village in Palbandha union. Emergency medical support for persons with disabilities during and after disasters. Availability of boat to bring patients to hospitals during flood. Distribution of health material support (Napkin, pad, soap) among women and girls during flood. Formation of volunteer rescue teams to care for women, girls and persons with disabilities from flood.	Upazila level govt offices; Department of Public Health Engineering (DPHE); Department of Social Services; Department of Women Affairs and NGOs
Severe cold and dense fog	Outbreak of fever and seasonal diseases during severe cold and dense fog Women, children, persons with disabilities and wage earners from poor communities suffer from health complications	Safe water, proper sanitation and warm clothes for disadvantaged communities and persons with disabilities Water for bathing and cooking Distribution of warm clothes among the poor. Proper medical treatment for the elderly and poor children	
Drought and heat wave	Outbreak of seasonal diseases during drought and heat wave	Safe water and food for persons with disabilities Medical support for the elderly, girls, boys and PWDs	

(c) Education and Child Protection (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Flood and river erosion	School infrastructure is destroyed. Education gets disrupted due to bad roads and communications	Preservation of books, notebooks, other educational materials, and documents in safety Attention on children to protect them from abuse in shelters during disasters Protection of school buildings and roads Boats for students, including girls, for commuting to and back from schools Awareness campaign for guardians to continue their children's education during disasters	Upazila education office; Department of Social Services; Department of Women Affairs; Union Parishad; NGO and Local communities.
Severe cold and dense fog	Students cannot attend school in severe cold Security concern increases for girl students as they walk to schools in severe cold and dense fog	Measures to school during disasters Distribution of warm clothes among children of poor and disadvantaged communities Ensure security and safety for girl students during their travel to schools Conduct online classes during disasters	
Drought and heat wave	Students cannot attend school during drought and heat wave	Special attention to children to protect them from diseases and continue school Tree plantation on school premises and roadside	
Nor'wester and Hailstorm	School buildings, roads and communication systems are disrupted, and students cannot go to schools	Vigilance to protect roads and communication systems during Nor'westers and hailstorms Construction of disaster resilient schools to prevent disruption of classes and lessons	

(d) Disaster Preparedness, Shelter Management and Early Warning (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Flood and river erosion Severe cold and dense fog	Women, children, and persons with disabilities from disadvantaged communities suffer from lack of safe place during disasters as existing shelters cannot provide enough space for them. Houses become uninhabitable during disasters.	Trained health workers and midwives at shelters for pregnant women and separate space for lactating mothers. Construction of shelters suitable for vulnerable women, children, elderly persons, and persons with disability (Charapur village, Panchgachi union, Kurigram Sadar Upazila) Disseminate early warning to women through public announcement from union councils	Upazila level govt offices; Department of Public Health Engineering (DPHE); Department of Social Services; Department of Women Affairs and NGOs

(e) Knowledge and Skill Regarding Comprehensive Disaster Management (SADDD sector)

Climate Hazard	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Flood and River erosion	<p>Lack awareness about disaster and impacts</p> <p>Women and girls cannot maintain menstrual cleanliness due to lack of fresh water.</p> <p>Lack of dissemination of early warning in local language</p> <p>No awareness about the necessity of local need assessment meeting</p> <p>Lack of knowledge and skills about early warning</p>	<p>Awareness programme and training on comprehensive disaster management</p> <p>Enhance collaboration among the concerned institutions and stakeholders on early warning, rescue, and rehabilitation</p> <p>Increase participation and responsibility of women of poor communities in disaster management committees</p> <p>Participatory planning of CCA and DRR</p> <p>Effective linkage of poor, women and PWD with UDMC and UZDMC</p> <p>Enhanced knowledge and opportunity among women and disadvantaged communities to participate in disaster management committees and needs assessment meetings</p> <p>Capacity and skill development training on early warning and comprehensive disaster management</p>	<p>Upazila level govt offices;</p> <p>Department of Public Health Engineering (DPHE);</p> <p>Department of Social Services;</p> <p>Department of Women Affairs and NGOs.</p>

N.B: This adaptation plan has been prepared based on the CRA reports of Panchgachi union (Kurigram Sadar Upazila) and Raniganj Union (Chilmari Upazila) of Kurigram, and Palbandha Union (Islampur Upazila) and Chikajani Union (Dewanganj Upazila) of Jamalpur.

Annex-2: Local Gender Responsive Adaptation and DRR Plan for Cox's Bazar, Satkhira, Khulna

(a) Livelihood, Employment, Earnings and Food Security (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Cyclone, water surge, and river erosion	<p>Destruction of 80% houses of poor communities by cyclone and water surge</p> <p>Women, as well as general people of fishing communities and those dependent on forest suffer from financial and food crisis</p> <p>Labourers face unemployment</p>	<p>Group formation with members of vulnerable occupations to run business (such as, dry fish processing business) collectively (these include fish and vegetable traders, dairy, and poultry farmers)</p> <p>Training and material support on alternative livelihoods for disadvantaged women and wage-earning families, forest-dependent and Rishi communities (tailoring, handicrafts, dry fish processing, poultry, duck, and livestock rearing)</p> <p>Enhanced social safety net allowance for widows, persons with disabilities and mothers</p> <p>Food storage at community level and proper distribution during disasters</p>	<p>Department of Social Services; Union Parishad; local communities;</p> <p>Department of Agriculture Extension (DAE); NGOs and CBOs</p>

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
	Aman paddy production is hampered Poultry die because of disasters	Financial, including easy loans for women, and material support for the members of Rishi communities (Pankhali, Dacope) engaged in bamboo and cane handicrafts Training and material support on salinity tolerant vegetable cultivation for women farmers Disaster resilient livelihood and special resource allocation for women of poor, forest-dependent, fishing, and disadvantaged communities Facilitation in the marketing of products produced by the women of forest-dependent, fishing, and disadvantaged communities	
Excessive rainfall and waterlogging, hill slides	Occupational crisis for wage earners during excessive rainfall and hill slides	Proper financial support to women to recover from financial losses during disasters Easy loan for women entrepreneurs	
Salinity	Crop cultivation becomes difficult; homestead vegetable cultivation is hampered; labour wages decline Salinity increases risks of virus attack in shrimp farms	Alternative livelihoods for poor women, forest dependent, fishing, and disadvantaged communities (poultry, quilt stitching, bamboo and cane handicrafts, homestead vegetable cultivation, mobile shops, vegetable, dress and farming shrimp and crab) Training and agricultural input support for women farmers Increased social safety net allowance with fair distribution Easy loans for women entrepreneurs	

(b) Water, Health, and Sanitation (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Cyclone, water surge, flood and salinity, temperature rise and erratic rainfall	Safe and freshwater crisis for drinking, bathing, and menstrual hygiene Latrines and water bodies get flooded and creating posing a health threat increasing suffering of women and girls	Awareness programmes on health protocols, and safe water for persons with disabilities, pregnant women, elderly persons, and lactating mothers Psychosocial counselling for girls and women to protect them from mental ordeals after disasters Health awareness and distribution of health materials (sanitary pads and napkins) among women and girls of poor families Awareness about the consequence of salinity-induced diseases among local communities Installation of pond sand filter for safe drinking water, and preservation of freshwater ponds Construction of community clinics and improved services	Upazila level govt offices; Department of Public Health Engineering (DPHE); Department of Social Services; Department of Women Affairs; NGOs; CBOs and CPP volunteers
Severe cold and	Outbreak of fever,	Safe water and proper sanitation facilities and	

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
dense fog	respiratory problems, and other diseases during severe cold and dense fog	warm clothes for disadvantaged communities	
Drought and heat wave	Outbreak of fever, dehydration, and other diseases	Safe water for PWDs Health awareness for women and disadvantaged communities	

(c) Education and Child Protection (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Cyclone and water surge, river erosion, excessive rainfall, and waterlogging	Schools are affected Poor students, especially girls, find it difficult to continue school due to financial crisis after disasters Finances of poor, wage-earning and disadvantaged communities worsen	Community level education programmes for girl students for post disaster situation. Separate shelter space for students during disasters. Financial and material support for poor students to attend online classes during disasters. Awareness programmes to prevent child marriage. Quick repair of affected schools to allow resumption of classes.	Upazila education office; NGO; Department of Social Services; DWA; Union Parishad; Local communities

(d) Disaster Preparedness, Shelter Management and Early Warning (SADDD rector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Flood and river erosion Severe cold and dense fog Cyclone, water surge Excessive rainfall and waterlogging	Women, children, and persons with disabilities from disadvantaged communities suffer from lack of safety during disasters as the existing shelters do not have enough space for them Houses and roads are destroyed Poor families cannot properly repair their houses Women of poor and wage-earning families face unemployment and suffer from financial crisis	Trained health workers and midwives for pregnant women in the shelters Safe space for lactating women in the shelters Construction of shelters suitable for women, children, elderly person, and persons with disabilities with proper security, lighting, dry food, and medical services during disasters Training on disaster preparedness and effective early warning for women, persons with disabilities and disadvantaged communities Implementation of the provision of keeping 30% female members in sub-district standing committees Regular maintenance of shelters Rehabilitation for communities affected by water surge and river erosion	Upazila level govt offices; Department of Public Health Engineering (DPHE); Department of Social Services; Department of Women Affairs and NGOs; CBOs and CPP volunteers

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
		<p>Construction of disaster-resilient embankments to protect houses from cyclones, water surges, river erosion, high tide, and excessive rainfall</p> <p>Inclusion of poor women in CPP volunteer teams</p> <p>Increase space in shelters to ensure congenial environment in shelters for women, PWD, children, elderly persons, and girls</p>	

(e) Knowledge and Skill Regarding Comprehensive Disaster Management (SADDD sector)

Climate Hazards	Impact of Hazards	Adaptation needs and priorities	Responsible Institutions and actors
Cyclone, water surge, salinity, excessive rainfall, hill slides, water logging and Nor'westers, waterlogging, drought and heat wave	<p>Lack of awareness among fishing and wage-earning communities, as well as among women, about disaster preparedness, and early warning.</p> <p>Lack of awareness about salinity and slow-onset disasters</p>	<p>Awareness programme and training on comprehensive disaster management</p> <p>Inclusion of women and representatives of disadvantaged communities in CPP volunteer groups</p> <p>Regular training for CPP volunteers on rescue and disaster management</p> <p>Participatory planning with representatives of all communities to identify disaster risks and vulnerability and adaptation needs of the local communities</p> <p>Training on comprehensive disaster management</p> <p>Enhance institutional collaboration to develop gender responsive CCA and DRR plans</p> <p>Dissemination of early warning among local communities by the CPP volunteers and public announcement by the local <i>imams</i> of mosques</p>	<p>Upazila level govt offices;</p> <p>Department of Public Health Engineering (DPHE);</p> <p>Department of Social Services;</p> <p>Department of Women Affairs;</p> <p>NGOs;</p> <p>CBOs and CPP volunteers</p>

N.B: This adaptation plan has been prepared based on the CRA reports of Konakhali union (Chokoria Upazila) and Sadar union (Teknaf Upazila), Burigoalini union (Shyamnagar Upazila) and Khushulia union (Kaliganj Upazila), and Koyra Sadar Union (Koyra Upazila) and Pankhali union (Dacope Upazila).