BASELINE STUDY REPORT

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Integrated Flood Resilience Programme: Phase Two

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Prepared by

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Acronyms

BDRCS	Bangladesh Red Crescent Society
BDT	Bangladeshi Taka (Local currency of Bangladesh)
CBDRR	Community-Based Disaster Risk Reduction
CCA	Climate Change Adaptataion
CDMC	Community Disaster Management Committee
CDRT	Community Disaster Response Team
C-DREF	Community - Disaster Relief Emergency Fund
CO	Community Organizer
CRM	Complaints Response Mechanism
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
FGD	Focus Group Discussion
GoB	Government of Bangladesh
H.S.C	Higher School Certificate
IEC	Information, Education and Communication
IFRC	International Federation of Red Cross and Red Crescent Societies
IFRP	Integrated Flood Resilience Programme
IPCC	Intergovernmental Panel on Climate Change
KOICA	Korea International Cooperation Agency
KII	Key Informant Interview
LGED	Local Government and Engineering Department
MoFA	Ministry of Foreign Affairs
NGO	Non-Governmental Organization
PASSA	Participatory Approach for Safe Shelter Awareness
PP	Programme Proposal
PwD	People with Disabilities
RCRC	Red Cross and Red Crescent
RCY	Red Crescent Youth
RoK	Republic of Korea
SDG	Sustainable Development Goal
SMS	Short Message Service
S.S.C	Secondary School Certificate
TV	Television
UDMC	Union Disaster Management Committee
ULO	Unit Level Officer
UN	United Nations
UNISDR	United Nations Office for Disaster Risk Reduction
UP	Union Parishad
USA	United States of America
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WB	World Bank
WDMC	Ward Disaster Management Committee
WFP	World Food Programme

Glossary and Terms

Adaptation	Adaptation refers to adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change
Capacity	The combination of the strengths and resources available within a community, society or organization that can be used to achieve agreed goals or targeted actions
Capacity Building	Process of developing technical skills, institutional capability, and personnel expertise
Char	Chars in Bangladesh are defined as the 'by-product' of the hydro-morphological dynamics of its rivers. The people living in the chars in Bangladesh have been facing climate change disasters disaster and river erosion
Climate Change	Climate change refers to any change in climate over time because of both natural variability and human activity
COVID-19	COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, Hubei, China, and has spread worldwide, leading to the global pandemic
Dhaleshwari River	The Dhaleshwari River is a distributary, 160 kilometres of the Jamuna River in central Bangladesh. It starts off the Jamuna near the north-western tip of Tangail District. After that it divides into two branches: the north branch retains the name Dhaleshwari and merges with the other branch, the Kaliganga River at the southern part of Manikganj District. Finally, the merged flow meets the Shitalakshya River near Narayanganj District. This combined flow goes southwards to merge into the Meghna River. The average depth of the river is 37 metres and and maximum depth is 81 metres
Disaster Management	Disaster management is the process to deal with the human, material, economic or environmental impacts of any type of disaster, it is the process of preparing and responding to its impacts
Disaster Response	Disaster response is the second phase of the disaster management cycle. It consists of several elements, like warning/evacuation, searches, and rescue, providing immediate assistance, assessing damage, continuing assistance and the immediate restoration or construction of infrastructure
Flood	The inundation of a normally dry area caused by rising water in an existing waterway, such as a river, stream, or drainage ditch is called a flood. A flood is a longer-term event than flash flooding: it may last days or weeks
Hazard	A hazard is a physical event (natural hazard) that can pose a threat to a system if the system is vulnerable to the hazard
Hut	A hut is a primitive dwelling, which may be constructed of various local materials
Impacts	Impacts refer to how human or natural systems are affected by climate change
Jamuna River	The Jamuna River is one of the three main rivers of Bangladesh. It is the main distributary channel of the Brahmaputra River as it flows from India to Bangladesh. The Jamuna flows south and joins the Padma River (Podda),

	near Goalundo Ghat, before meeting the Meghna River near Chandpur. It then flows into the Bay of Bengal as the Meghna River
Kobiraj	Kobiraj is an occupational title found in persons of India or Indian origin. In old days the people practising "Ayurveda" in India were also called Kabi (Vaidhya). Many of them were attached to Royal courts to treat kings and the royal family. As such they were given the title of Kobiraj
KoBo Toolbox	KoBo Toolbox is a free open-source tool for data collection. It helps to collect data in the field using mobile phones or tabs
Kaccha House	Houses made from mud, thatch, or other low-quality materials are called kaccha houses
Livelihood	Livelihoods comprise the capabilities, assets, and activities required for a means of living. It is considered sustainable when it can cope with and recover from stresses and shocks and maintain its capabilities, assets, and activities both now and for future, while not undermining the natural resources
Logical Framework	The logical framework or log frame is a document that gives an overview of the objectives, activities, and resources of a programme. It also provides information about external elements that may influence the programme, called assumptions
Mitigation	Mitigation is lessening or limitation of the adverse impacts of hazards and related disasters
PASSA	Participatory Approach for Safe Shelter Awareness (PASSA) is a participatory method of disaster risk reduction (DRR) related to shelter safety. The PASSA aims to develop local capacity to reduce shelter related risk by raising awareness and developing skills in joint analysis, learning and decision-the making at community level
Preparedness	The knowledge and capacities developed by governments, professional response and recovery organizations, communities, and individuals to effectively anticipate, respond to, and recover from the impacts of forthcoming or current hazard events and conditions
Pucca House	Pucca house refers to dwellings that are designed to be solid and permanent
Risk	Risk is the combination of the probability of negative consequences of an event
Resilience	Resilience refers to absorbing stresses and maintaining function in the face of external stresses imposed upon it by climate change and reorganizing, and evolving into more desirable configurations that improve the sustainability of the system, leaving it better prepared for future climate change impacts
Recovery	Recovery from disasters indicates a set of policies, tools and procedures to enable the recovery or continuation of vital technology infrastructure and systems
SDGs	The Sustainable Development Goals (SDGs) are part of Resolution 70/1 of the United Nations General Assembly in 2015 "Transforming our World: the 2030 Agenda for Sustainable Development". 17 goals of SDGs are broad and interdependent, yet each has a separate list including 169 targets to achieve
Topography	Topography is the study of the shape and features of land surfaces. The topography of an area could refer to the surface shapes and features themselves, or a description (especially their depiction in maps)
Union Parishad	Union Parishad is the smallest rural administrative and local government unit in Bangladesh

Upazila	The Upazila is the second-lowest tier of regional administration in Bangladesh
Vulnerable	The vulnerable are the victims of vulnerability. And vulnerability is the susceptibility of groups or individuals to harm because of climatic changes
Ward	In Bangladesh, each Union is made up of nine Wards. Usually, one village is designated as a Ward

Executive Summary

The "Integrated Flood Resilience Programme (IFRP): Phase Two through Community-Based Disaster Risk Reduction (CBDRR)" is one of the comprehensive resilience programmes of BDRCS and IFRC to enhance community resilience through reducing the vulnerability of highly exposed people to floods and to strengthen the community resilience capacity of the disaster vulnerable households through a community led approach. The programme is being implemented at the four communities of Tangail district by BDRCS with the technical support and overall guidance by IFRC. The Ministry of Foreign Affairs (MoFA), Republic of Korea is providing the fund and the Korea International Cooperation Agency (KOICA) is working as the monitoring and liaison partner of this programme. The goal of the programme is to build the resilience of the community to respond to floods and other climate induced phenomena, including COVID-19 pandemic/health emergencies effectively and efficiently.

Survey Design: The Baseline Survey was a designed activity under the programme. The major objective of the survey was to collect primary and secondary data based on the indicators of the programme from four communities of Tangail district. The Survey was collaboratively conducted by BDRCS and IFRC with the support of Tangail Red Crescent Unit. Both quantitative and qualitative methods were used in the research. Household survey with 1,550 samples, 08 FGDs and 10 KIIs were conducted for the baseline survey data collection purpose.

Some Key Findings of this Survey: It was found that the rate of education was low among the community people, 62 per cent of the respondents had no formal or institutional education. The main occupations of the household heads of the four communities were based on the economy considering the rural context. About 42 per cent and 24 per cent of the household head's main occupations is agriculture and day labouring. The households had an average monthly income of BDT 6,844 and their average monthly expenditure was BDT 7,272. Only 42 per cent of the households had their own agricultural and homestead lands. Followings are sector wise summary of this survey for a quick glance.

Findings on Disaster Preparedness: Only 21per cent of the respondents of the four communities had ideas about climate change and disaster risk reduction and about 29 per cent of the respondents had ideas/knowledge about flood resilience. Flood is the main disaster of the four communities in the last 20 years and about 89 per cent of the respondents also mentioned that river erosion had impacts on their life and livelihoods. About 63 per cent, 55 per cent, 49 per cent and 44 per cent of the respondents mentioned that flood destroys their household and properties, stops daily working opportunity, destroys crops and agricultural lands and makes people shelter less. About 49 per cent, 65 per cent and 70 per cent of the households used to take actions before, during and after the flood period. Only 28 per cent of the respondents had ideas on flood early warning messages and there was no established flood early warning system at the four communities. About 87 per cent of the respondents mentioned that their households' livelihoods were hampered during the last flood and their households' heads had very limited options of earnings.

Findings on Livelihoods: Only 1 per cent of the respondents or their household members received skill development training to improve livelihood/income generating options in the last three years. While identifying the necessary training for the community people to improve their livelihoods, the respondents suggested that training on animal-husbandry/poultry rearing, agriculture, tailoring and small business/retailing, small cottage, fisheries, IT and technical and vocational training would be helpful for them. About 92 per cent per cent of the respondent's houses were found as Kaccha and only 34 per cent per cent of the respondents considered their houses as resilient to any type of disaster and flood risk.

Findings on WASH: It was found that all households of the four communities used tube-well as the major source of drinking water. Around 60 per cent of the tube-wells of the four communities are inundated

when flood occurs. About 97 per cent of the households usually collects drinking water and about 24 per cent of the respondents and its household members had proper knowledge about improved water and its sources. About 43 per cent of the households must use water from inundated tube-wells during the flood period. About 81 per cent of the households had their own latrines and only 26 per cent of the latrines of the communities were protected from flood. About 78 per cent of the respondents and their household members use sandals during defecation and about 84 per cent of the respondents and their household members wash hands by using soap/mud after defecation. Only 27 per cent of the respondents had an idea about proper hand washing technique. About 78 per cent of the respondents has an idea about menstrual hygiene management. About 42 per cent of households covers food items properly and in a hygienic way.

Findings on Health: About 71 per cent of the community people takes treatment and medicine from the village doctor and only 11 per cent of the community people had the capacity to take treatment from private clinics. About 19 per cent of the respondents and their household members had suffered from types of diseases like scabies, diarrhoea, abdominal pain, and dysentery during the last flood. Only 11 per cent of the households had the capacity to provide health services and advice from private clinics for their pregnant women. About 95 per cent of the respondents had an idea about COVID-19 and about 85 per cent of the respondents mentioned the COVID-19 kept impacts on the livelihoods of their households. About 14 per cent of the respondents mentioned that the women and girls of the community feel insecure during the disaster/flood period and about 15 per cent of the respondents think that sexual and gender-based violence increase during the disaster/flood period. The community people take different measures to protect women and girls from SGVB resulting from disaster/flood. About 34 per cent of the respondents mentioned that the officials/representatives of Government and non-government organizations consult with the community people while doing different works.

Recommendations: From the Baseline Survey, some recommendations were identified so that the implementing team can take effective measures for achieving the goals and outcomes under the programme. It has been recommended to increase the knowledge of the community people on climate change adaptation, disaster risk reduction, community resilience, health, WASH, resilient shelter sustainable livelihoods and COVID-19 though different types of activities under the programme. It has been also recommended to form the Community Disaster Management Committee (CDMC), Community Disaster Response team (CDRT) and establish Community-Based Flood Early Warning Systems (C-BFEWS) and Community Gathering Places (CGPs) at the four communities. Training and cash grants on animal-husbandry/poultry rearing, agriculture, tailoring, small business/retailing, small cottage, fisheries, information technology, technical and vocational training should be provided to the selected beneficiaries if any type of livelihood supports are provided to the selected beneficiaries under the programme. The training and orientations under the programme must include disaster aspects so that the beneficiaries can cope with the disaster situation by utilizing their knowledge and resources. Finally, BDRCS should do advocacy with Tangail District and Sadar Upazila Administration so that the success of the programme can be achieved. As the programme is for only one year and it will be very tough to implement all the activities under the programme by this stipulated time frame as well as achieve community resilience. So, the concerned management and IFRC should consider the extension of the programme to make the four communities resilient to flood and disaster.

1. INTRODUCTION

1.1 Background and Context of the Programme

Bangladesh is one of the most climate-vulnerable and disaster-prone countries in the world. The country is prone to different types of disasters due to its geographical locations, demographic features, and economic situation and in recent times. Climate change has become a key factor behind the increased vulnerability of the country. The country has unique geography, situated on the Bay of Bengal and forming one of the largest deltas in the world with a dense network of tributaries of the Ganges, Brahmaputra, and Meghna (GBM) rivers. The country has a monsoon-type climate. It has three main seasons: hot, humid summers (March-June) with average maximum temperatures of 37° Celsius and relatively little rainfall and often drought, cooler monsoon seasons (June-September) with heavy rainfall frequently resulting in floods for up to two-thirds of the country and dry, cooler winters (October-February) with average maximum temperatures of 28° Celsius Rainfall in Bangladesh also differs per season and location. The central west receives the least, less than 1,400 mm per year, while the northeast and southeast receive over 3,000 mm per year (World Bank, 2015).

Flood is one of the most chronological and devastating disasters for Bangladesh which has been affecting the country throughout history, especially during the years 1966, 1987, 1988, 1998, 2004, 2017, 2019 and 2020. Poverty is a significant contributor to people's vulnerability to flood and frequent flood leads to increase in poverty and hence vulnerability. Land resources are scarce in this densely populated country and due to growing population pressure people, especially poor people in the rural areas are forced to settle in the flood prone areas. Flood deteriorates the normal functions of life, affecting homesteads, agricultural land, daily income generating activities, shelter, livestock, water supply and sanitation condition and economic structure. Along with the numerous vulnerabilities, problems related to water supply, sanitation and health become acute during a flood (Impacts of Floods and Possible Solution, 2019, Pusan National University, South Korea).

Besides floods from 2020, Bangladesh has been facing the Global Pandemic COVID-19, which is damaging the usual life of the urban and rural populations of Bangladesh. For Bangladesh, it is a big disaster like flood, cyclone, and other hazards. People are being affected every day due to the COVID-19 pandemic as they have limited knowledge on protection and prevention aspects. The COVID-19 pandemic has been jeopardizing the life of Bangladesh's population socially, economically as well as culturally. Poor people are the most sufferer segments (WHO, 2021). Both flood and COVID-19 are now the challenges for the people of the country. Especially low-income populations are struggling hard to survive these climatic disasters.

A resilience approach, in which systems become the unit of analysis and policy prescription, tends to ignore the people within these systems and their different capacities to cope with shocks and adapt to change. How much a given disturbance affects a person's livelihood depends on several interrelated factors, such as resource access, power structure, risk management and social capital. The imbalance of these factors plays an important role in determining how big the loss and suffering will be in relation to the environmental stress (Tanner, 2015). "The ability of communities to manage change, by maintaining or transforming the living standards in the face of shocks or stresses without compromising their long-term prospects (DFID, 2014)".

The impact of climate change and disasters cannot be reduced in the absence of a resilient approach. If people of a community have proper orientation and capacity for resilient techniques, then it becomes easier for them to cope with the climate change vulnerability, and they can get back to their normal life after such disasters. Enhancing community resilience is also very important for ensuring the sustainable livelihood of people for the future. As the impacts of disasters are increasing because of climate change

and other natural and human activities, development practitioners are prescribing enhancement of resilience capacity as a solution to the threats to the community people that hamper their usual life and destroy their livelihood and social capital. In the resilience approach, adaptive capacity is considered the key achievement for the community people. Communities are advised to achieve several capacities that will help them achieve resilience capacity and respond to disasters. These capacities are developed through sound networks and connections, using indigenous knowledge, social engagement, and resource management.

The Red Cross and Red Crescent (RCRC) Movement is uniquely placed to address the consequences of climate change and disaster by being present in the communities before, during and after emergencies, accustomed to identifying local solutions to local needs and supporting community mobilization. The IFRC has been working with the Bangladesh Red Crescent Society (BDRCS) for several decades since the inception of the country in 1971. The IFRC's strength lies in its wide range of volunteer networks as well as expertise in community-based programmes. IFRC helps to reduce the present and the future humanitarian impacts of climate change and to support people to thrive in the face of it. Drawing from the RCRC Movement ambitions to address the climate crisis, the 4 pillars and Strategy 2030, IFRC plans to work across four pillars of action: i) Scale-up climate-smart disaster risk reduction, early action and preparedness; ii) Reduce health impacts of climate change; iii) Address climate displacement; and iv) Enable climate-resilient livelihoods and services, and sustainable water resource management. The organization prioritizes reducing carbon footprint as a cross-cutting consideration in all. IFRC's activities include tackling prevention, preparedness, response, and recovery to address and reduce the impacts of climate-related shocks and hazards to support the longer-term resilience of communities (https://www.ifrc.org/media/13279).

BDRCS has been working to prevent and alleviate human suffering through rendering humanitarian services across all the districts of Bangladesh through its 68 branches, in line with international humanitarian standards and the seven fundamental principles of the global Red Cross Red Crescent network: as auxiliary to public authorities, National Society, BDRCS, is in a unique position to support their government counterparts in taking necessary climate action. BDRCS has several national commitments to promote disaster and climate risk management in Bangladesh. BDRCS's national mandate as stated in the country's Standing Order on Disasters (SOD) is to complement the government's emergency response efforts, particularly disaster preparedness plans and programmes. BDRCS is mandated to work with the most vulnerable communities, aiming to proactively incorporate measures to reduce the impact of climate change in all their programmes, ranging from disaster risk reduction, livelihood, and health. BDRCS intends to capitalize on their auxiliary role to the government to advocate and support the implementation of the national plans related to climate change, such as the National Adaptation Plan and Mujib Climate Prosperity Plan. BDRCS has been a pioneer in its remote community-based disaster risk management interventions, forecast-based action for floods and cyclones and is currently working on heatwaves. The BDRCS has steadily grown stronger and is now one of the leading humanitarian organizations in the country. BDRCS has partnerships and cooperation with many organizations and government bodies which helps the organization to work in the arena of climate change adaptation, disaster risk reduction and community resilience.

"Integrated Flood Resilience Programme (IFRP): Phase Two through Community-Based Disaster Risk Reduction (CBDRR)" is one of the comprehensive resilience programmes of BDRCS and IFRC to enhance community resilience by reducing the vulnerability of highly exposed people to floods and to strengthen the community resilience capacity of the disaster vulnerable households through a community-led approach.

The programme is being implemented at the four communities of Tangail district by BDRCS. IFRC is providing the technical support and overall guidance to implement the programme whether the Ministry of Foreign Affairs (MoFA), Republic of Korea is the donor. And Korea International Cooperation Agency (KOICA) is working as the monitoring and liaison partner of this programme. The goal of the programme

is to build the resilience of the community to respond to floods and other climate-induced phenomena including COVID effectively and efficiently–19 pandemic/health emergencies. The objective of the programme is to reduce the loss of life and property, and improve livelihood and wellbeing, build communities' capacity and reduce the vulnerability to flood, COVID-19 disease, and other disasters through a community-based approach.

The programme has the following four outcomes:

- Communities are capable of effectively responding to floods, COVID-19 pandemic and adapt to changing climates.
- Most vulnerable households have improved livelihood and shelter to withstand small scale floods.
- Community people have increased access to appropriate and sustainable water, sanitation and hygiene practices focused on COVID-19 hygiene promotion and hand washing issues.
- BDRCS capacity to effective coordination and collaboration with other DRR actors to deliver scaled up DRR programme is enhanced.

The programme incorporates the components like climate change adaptation, disaster risk reduction, livelihoods, shelter, WASH, health, and capacity enhancement of the targeted communities. The delivery of programme intervention targets to increase the capacity to reduce life and livelihood risk of the vulnerable community people including women, children, elder people, and people with disability. The programme will scale up the community's resilience via a community-based disaster risk reduction approach with various measures considering targeted communities' needs and context through enhanced vulnerability and capacity assessment. The programme approach also includes change agents in every aspect of the project management cycle including planning, implementation, monitoring, and evaluation. The programme in addition includes the interventions of community engagement and accountability, and protection, gender, and inclusion.

The programme will contribute to the Sendai Framework by understanding the disaster risk by communities and enhancing disaster preparedness for effective response and "Build Back Better" in recovery, rehabilitation, and reconstruction. The programme contributes to ensuring the knowledge and innovative technology or approach for reducing the disaster risk through promoting sustainable livelihood options. The programme will establish a strategic linkage with UNISDR, the RCRC Movement partners, national DRR platform, by profiling community/DRR/CCA/COVID-19 initiatives, success stories, best practices, etc. The programme will also supplement the IFRC campaign for 1 billion coalitions for resilience. Through this programme BDRCS, other DRR practitioners in the country and sister NSs will complement each other in the efforts of DRR with COVID-19 interventions. The programme will sustain its gradual vertical and horizontal expansion through replication and scaling up of best practices in the country as well as other NSs in the region. The women empowered with feasible livelihood opportunities will significantly contribute to improving socio-economic conditions and social safety nets. The regular investment in household and community level DRR actions will promote and sustain the culture of resilience of DRR. Finally, the programme will contribute to achieving the SDGs by reducing the disaster risk, improving WASH facilities, and ensuring food security with agricultural extension, which will supplement strengthening the resilient shelter, end hunger and end poverty (Proposal, IFRP: Phase Two, October 2021).

1.2 Rationale of the Baseline Survey

The Baseline Survey was a designed activity under IFRP: Phase Two. For implementing the activities of the programme, it was important to know the basic information on climate change, community resilience and DRR; COVID-19 knowledge and practices, WASH, livelihoods; health and shelter of the four communities. Strategies of implementation of the interventions and activities will be designed based on the findings of the Baseline Survey and the achievement of the programme depends on its successful completion.

1.3 Literature Review

Community Resilience is very important to make people capable of coping with disasters and ensuring sustainable livelihoods for the future. Day by day, the impacts of disasters are increasingly caused by climate change and other natural induced and man-made events. The development practitioners are tending to initiate resilience programmes as the solution to these types of threats to the community people that have been hampering their usual life and destroying their livelihood capital. Enhancing the resilience of the community people will be the solution as the community people can come back to their previous usual situation within a very short period. Resilience was termed as a very important idea in the Sendai Framework for Disaster Risk Reduction (2015-2030) and the Sustainable Development Goals (SDGs) by 2030. The Sendai Framework focused on substantially reducing disaster damages to critical infrastructure and disruption of basic services, among them health and educational facilities, including developing their resilience by 2030. Its key areas of priorities also focused on investing in disaster risk reduction for resilience and public and private investment in disaster risk prevention and reduction through structural and non-structural measures which are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries, and their assets, as well as the environment. The SDGs adopted by the UN have given the highest priority to community resilience to tackle the impacts of the climate change and disasters and achievement of the goals of SDGs regarding infrastructure, food security, ending poverty, having improved WASH facilities, sustainable agriculture, peaceful society, reducing inequalities, promoting economic growth, enhancing partnership, and utilizing sustainable resources. Paris Agreement on Climate Change (2015) also focused on community resilience for strengthening resilience to reduce the vulnerability to climate change and enhance adaptive capacity of the communities. A significant number of literatures were reviewed before conducting the Baseline Survey. The literature review was helpful to understand local and global flood vulnerability and community resilience context.

Bangladesh is one of the most vulnerable countries to climate change and will be among the countries in South Asia most affected by an expected 2°Celsiusrise in the world's average temperatures in the coming decades (Intergovernmental Panel on Climate Change, 2014). In Bangladesh, floods originate from precipitation in the whole of the GBM basin, about 7 per cent of that lies within Bangladesh. In an average year, about 25 per cent of the areas of Bangladesh are inundated during floods. During severe floods, over 60 per cent of the country is inundated, which has been occurring every 4 to 5 years. These floods have devastating effects. River-bank erosion results in the loss of thousands of hectares of agricultural lands and affect the population for years after years. Flood causes destructions of a country's physical and social infrastructure, transport network, assets, crop production, loss of lives etc. Flood not only deteriorates the social lives of people but also the economy. It causes considerable damage to standing crops, livestock, poultry, houses, transportation and communication systems, educational and institutional buildings, and other social facilities. Flood also deteriorates the normal functions of life affecting homesteads, agricultural land, daily activities, water supply, sanitation conditions and economic structure. All previous big floods in Bangladesh have caused enormous damages to properties and considerable loss of life (Climate Change Profile: Bangladesh, Ministry of Foreign Affairs, April 2018).

The country is flood-prone due to being situated on the Ganges Delta and being the basin for several tributaries flowing down into the Bay of Bengal. In Bangladesh, floods accounted for 40 per cent of the total number of natural disasters that occurred between 1985 and 2009 which resulted in massive destruction in terms of economic loss and persons affected. At least one-third of areas of the country are vulnerable to flooding. On average, every year, floods engulf roughly 20.5 per cent of Bangladesh. A combination of geographical locations, high rainfall, flat topography with very low elevation and extreme climate variability, made Bangladesh vulnerable to floods (The Fletcher School, USA, May 2016).

The frequency of natural disasters around the world has been increasing over the recent years. Therefore, the pattern of floods in the country also points toward an increase in the frequency of floods in Bangladesh. Intense and frequent floods in Bangladesh occur due to geographical location and poor

economic conditions of Bangladesh. Bangladesh annually suffers the consequences of its location in the low-lying deltaic floodplain of the Ganges-Brahmaputra-Meghna (GBM) river basin. About 80 percent of Bangladesh's land falls under the flood plain and as much as 34 percent of its land area goes under water for about five to seven months in every year. Bangladesh is suffering from the flood on an increasing basis and with the climate change; flood is expected to increase (Department of Disaster Management 2014).

Prior to COVID-19 pandemic, Bangladesh has made solid strides in poverty reduction over the last few decades, cutting poverty incidence from 50.4 per cent in 1990 to 20.5 per cent in 2019. However, impacts of Covid-19 combined with stringent containment measures have seriously impacted the country's long-standing macro-economic stability, disrupted people's livelihood, and raised poverty to 40.9 per cent in 2020. With about 20 million 'new poor' there could be about 90 million people, who are under severe poverty stress due to the pandemic. The pandemic has overstressed the country's fragile health system, education, human development, basic public services delivery, and social upliftment. If the pandemic crisis becomes protracted, it may turn into an entrenched human crisis, derailing the county's development transformation including LDC graduation and SDGs. Mitigating the pandemic is challenging in Bangladesh because of multiple vulnerability transmission channels, including. A forward-looking response to COVID-19 is crucial if Bangladesh is to recover quickly from the economic shock and setback of the pandemic. Social protection, including cash transfers, universal health coverage and access to other basic services, will be central to uprooting the inequalities that permeated societies before COVID-19 (UNDP Report, 2020).

"On an average, every year, floods engulf roughly 20.5 per cent of Bangladesh, or about 3.03 million hectares (around 30,000 km). In extreme cases such as the huge floods of 1988 and 1998 inundated as much as 70 per cent of Bangladesh. A combination of geographical locations (as the drainage area for three huge river systems with their origins in China, India and Nepal), high rainfall, flat topography with very low elevation and extreme climate variability, make Bangladesh vulnerable to floods. In addition, high population density, poverty and a predominantly agrarian economy make Bangladeshi communities less resilient to climatic shocks" (The Fletchur School, USA, May 2016).

"Bangladesh is one of the most at-risk countries to climate change with cyclones, flooding, saltwater intrusion, and river erosion expected to increase in frequency and severity over the coming decades. People living in the southern coastal belt and north-west flood plains of Bangladesh are particularly vulnerable" (WFP, 2013).

"In resilience thinking or social-ecological system thinking, adaptability or adaptive capacity is a social component, which is like the idea of collective agency. Several factors help place-based communities to foster resilience and to respond to shocks and stresses. These factors are: "people-place connections; values and beliefs; knowledge, skills, and learning; social network; engaged governance (including collaborative institutions); a diverse and innovative economy; community infrastructure; leadership; and positive outlook, including readiness to accept change" (Berkes and Ross, 2013).

A resilient system is one that can retain core structures and functions in the face of significant disturbances, while still retaining the ability to change and develop (Nelson et al. 2010). The resilience concept has proved popular as a way of thinking beyond coping strategies and moving towards adaptation to changing environmental conditions that entail the capacity to cooperate, learn and further enhance resilience under future conditions (Moser, 2008).

Livelihood systems are an essential framework for human organization. They include social and economic networks, maintain cultural practices and enable upward socio-economic mobility over generations. Livelihoods are sustainable when they enhance the well-being of current and future generations without degrading the environment or depleting resource bases (Chambers and Conway 1992). Livelihood shocks, whether economic, environmental, socio-cultural or health-related, can undermine long-term development prospects and push people into cycles of poverty and unhealthy living conditions (Wilkinson and Peters 2015).

Climate change aggravates Bangladesh's vulnerability to the extreme weather events: higher temperatures and melting glaciers are intensifying the occurrence and severity of cyclones, floods, and drought. Rising sea levels, increasing temperatures and melting glaciers are creating more erratic and unpredictable natural hazards that contribute to overall vulnerability. Large climate shocks create massive damage and loss of assets that can place stress on household incomes and on national economic growth and stability. In addition, natural shocks have downstream health and economic consequences, forcing significant livelihood changes (USAID, 2016).

"Natural disasters are the current burning issues in the world and the greatest threat to mankind. Its challenges are multi-dimensional, multi-sectoral and have immediate as well as long term effects. Every year, Bangladesh faces many natural disasters like drought, flood, waterlogging, cyclone and tidal surge, tornado, thunderstorm, river/coastal erosion, landslides, salinity intrusion, hailstorm, extreme weather events etc. These factors have shown Bangladesh one of the most vulnerable with high exposure to and its risk" (Asia Pacific Disaster Report, 2015, UN-ESCAP).

Disaster risk is to be a function of hazard, exposure, and vulnerability. Hazard refers to the hazardous phenomena itself, such as a flood event, including its characteristics and probability of occurrence; exposure refers to the location of economic assets or people in a hazard-prone area; and vulnerability refers to the susceptibility of those assets or people to suffer damage and loss (e.g. due to unsafe housing and living conditions, or lack of early warning procedures (UNDRR, 2011). Flood damage constitutes about a third of the economic losses inflicted by natural hazards worldwide and floods are, together with windstorms, the most frequent natural disasters. The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNDRR, 2009).

"The general capacity of a community to absorb change, seize the opportunity to improve living standards, and transform livelihood systems while sustaining the natural resource base. It is determined by community capacity for collective action as well as its ability for problem-solving and consensus building to negotiate coordinated response (Walker et al. 2010)". "The ability of a community to resist, absorb, cope with, and recover from the effects of hazards and to adapt to long-term changes in a timely and efficient manner (Pasteur, 2011)". "Resilience as "the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation (IPCC, 2014)". "The ability of individuals, communities, organizations or countries exposed to disasters, crises and underlying vulnerabilities to anticipate, prepare for, reduce the impact ofcope with and recover from the effects of shocks and stresses without compromising their long-term prospects (IFRC, 2014)".

1.4 Objectives of the Baseline Survey

1.4.1 Broad Objective

To collect primary and secondary data based on the indicators (Annex 1) of the IFRP: Phase Two from four communities of Tangail district. Data and information were collected on climate change, community resilience and DRR; COVID-19 knowledge and practices, water, sanitation, and hygiene; livelihoods; health and shelter from the selected communities.

1.4.2 Specific Objectives

- To identify and document the existing situation of the communities regarding climate change, DRR, community resilience, WASH, livelihoods, health, and shelter.
- To explore the practices and capacities of the communities to respond to floods and other climate-induced disasters.
- To identify the impacts of COVID-19 on the life and livelihoods of the communities and take actions by the community people to fight against the pandemic.
- To identify the needs of targeted communities to increase their resilience and adaptation capacities through modifying interventions and implementation modalities.
- To provide a key reference to the End Line Evaluation to assess and monitor the change of programme results.

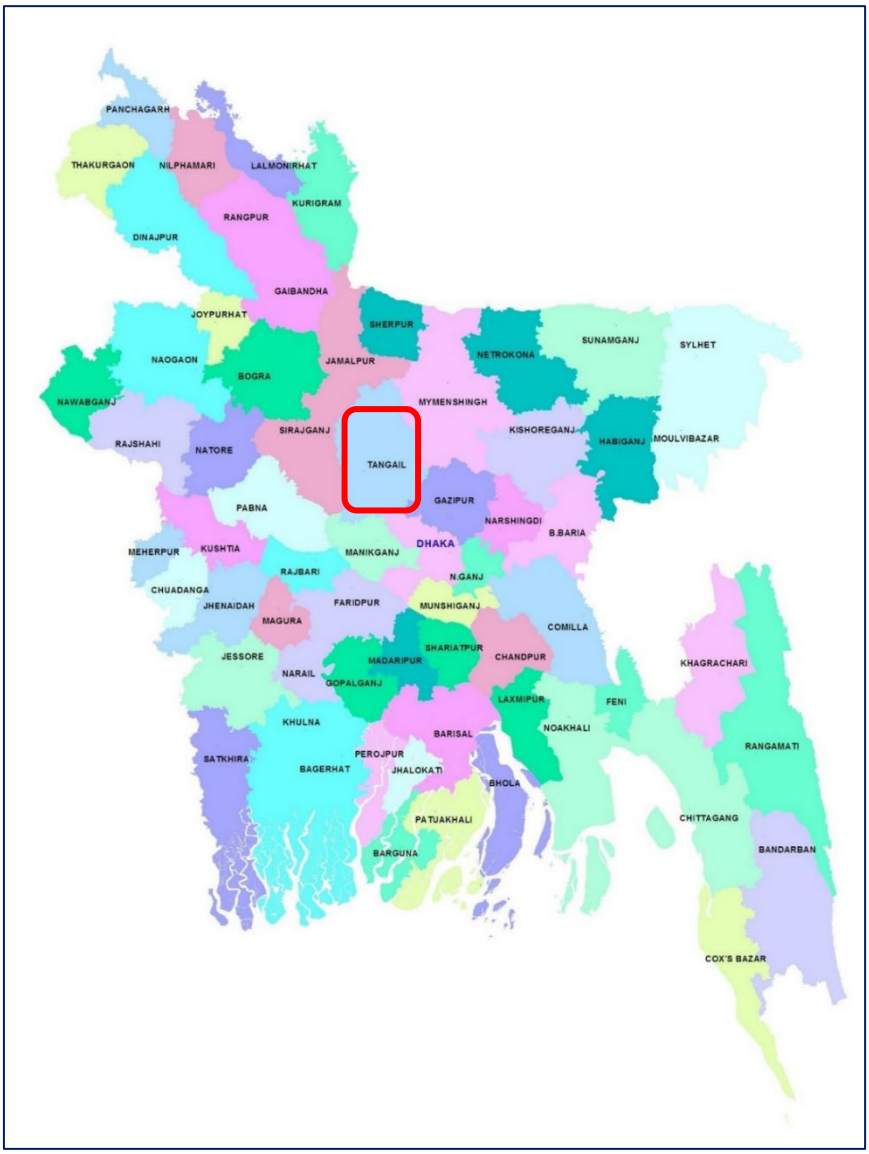
2. SURVEY METHODOGY

2.1 Survey Area and Reviewing Secondary Data Sources

The Baseline Survey was conducted at the four communities of two Unions of Tangail Sadar Upazila. Both quantitative and qualitative approaches were used for the survey. The survey was collaboratively conducted by BDRCS and IFRC team with the support of the Tangail Red Crescent Unit and Programme team. For this, secondary data and IFRP: Phase Two documents were reviewed. The secondary data sources included research and policy papers, peer-viewed documents on climate change adaptation, disaster risk reduction and community resilience. The other documents on flood resilience, and sustainable livelihood options considering Bangladesh and programme areas especially the Jamuna River basin reviewed. Besides, different national and international publications and works on the vulnerability of the flood-affected people of Bangladesh were reviewed. IFRP: Phase Two documents included its proposal and logical framework which helped to conduct the survey. Reviewing and analyzing at the documents on flood resilience in Bangladesh along with the South-Asian and global context were also the part of literature review which greatly helped to complete the survey.

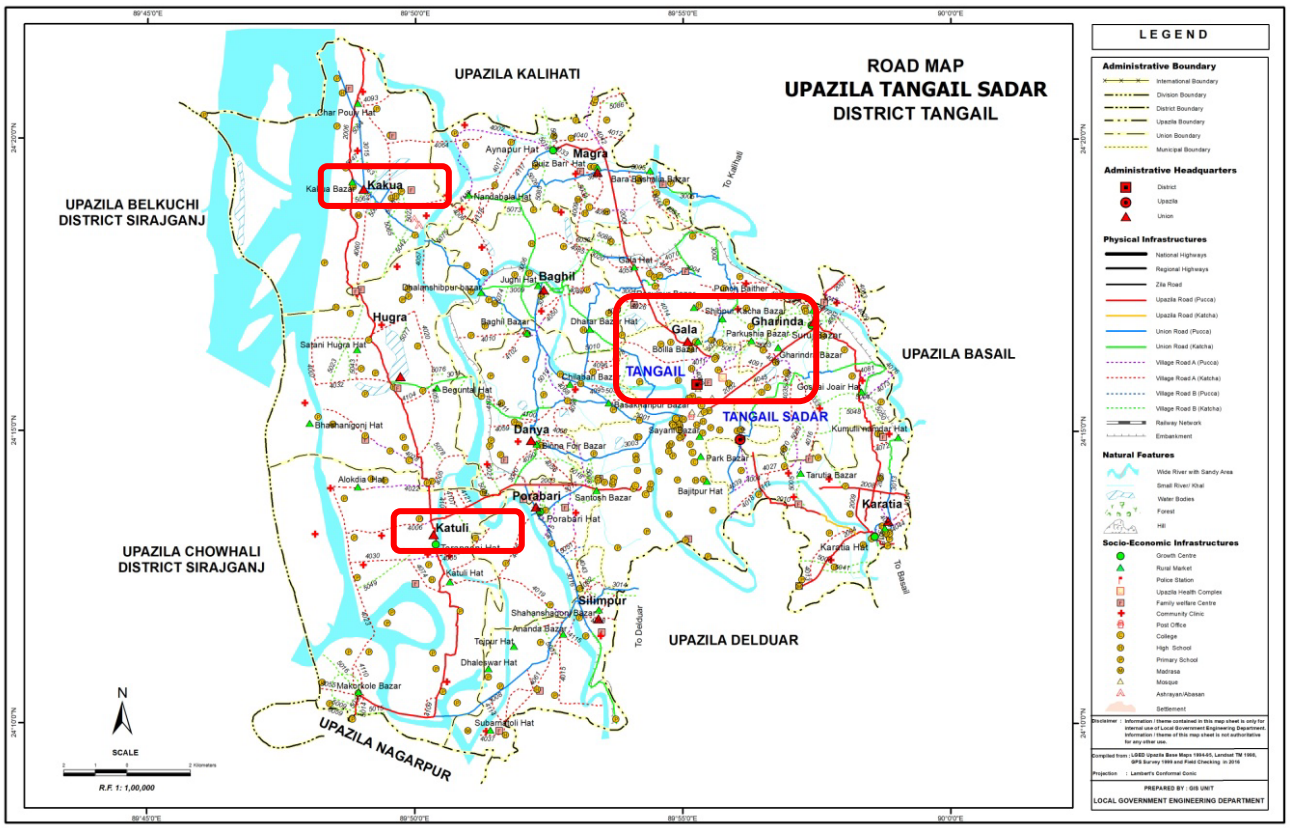
2.2 Profile of Targeted Area

Figure 1: Tangail district is the programme area (Source: Google, image of Bangladesh map with district name)



Above figure 1 shows the position of Tangail on the map of Bangladesh. Tangail is a flood-prone district which is frequently affected by flood and river erosion every year. Especially the people residing in the river adjacent and Char areas have been flooded every year. Flood has severe impacts on the community people and livestock of the communities of this district.

Figure 2: Location of the targeted area in map (Source: LGED website, Bangladesh)



The four communities are in the Jamuna River basin as well as flood-affected and there were no visible flood-early warning systems in the proposed four communities. Most of the people of the four communities are dependent on agriculture and have very low resilience capacities to disasters. The housing pattern, livelihood opportunities, community people's access to service providing organizations, water and sanitation situation and health facilities in the four communities are not improved. The vulnerability of women and their access to sustainable livelihood opportunities were found less in the proposed four communities. So, interventions can be done for women's empowerment in those four communities.

The two communities of Katuli Union, Isapasha and Andhar Manik are located 13 kilometres far from Tangail Sadar Upazila. The two communities are beside the Jamuna River. The Isapasha community of Katuli Union is located between the Jamuna and Dhaleswari rivers. The Union is a flood-prone area and the Andhar Manik community is located beside the Jmauna River. The loss and damage of flood has been devastating than the previous times. Nowadays, the intensity and frequency of floods are increased which has been very damaging for the community people and their resources and properties. Their livelihoods are hampered due to floods. Floods keep impact the earnings of the community people, and they are forced to stay in their own houses as they face mobility restrictions during the flood period. As per the information of UP, around 60 per cent of the households of this Union are inundated during the flood period.

On the other hand, the two communities of Kakua Union, South Char Pouli and Goyla Hossain are located 16 kilometres far from Tangail Sadar Upazila. The communities are located beside the Jamuna River and

every year, most places of this Union are inundated by flood. Besides, some of the areas of this Union face river erosion during this period. The community people have been facing a lot of problems and losses of the flood for many years in this area. The people of this Union have very limited livelihood options by which they lead their life and earn money. Most of the people of these two communities are dependent on agricultural works and day labouring. Some of the people sell their labour seasonally going to the Tangail town and cities like Gazipur, Dhaka and Narayanganj. There is a weaver group in the community who prepare clothes and sell for their livelihood purposes.

Jamuna and Dhaleshwari rivers are the natural resources for the four communities of the two Unions. But there are no abundant fish in the rivers like the previous times. In this dry season, the river's position near the side of the community is water-less and the people cannot catch necessary fish during that period. There are no other natural resources like ponds or bills where the community people can catch fishes. Besides, river erosion is responsible for people's vulnerabilities and miseries.

2.3 Data Collection Team

The Baseline data collection team was led by BDRCS NHQ and IFRC officials and they guided and trained the enumerators and monitored the survey. They also managed the entire process of household survey and the qualitative data collection. A total of 20 RCYs including 14 males and 06 female RCYs from Tangail Red Crescent Unit collected quantitative data from the household level. One day full orientation was provided to the RCYs at the district level. Orientation was given on the data collection procedure and proper understanding of the questionnaire and issues of the programme, climate change adaptation, disaster risk reduction, community resilience etc. By the orientation, all RCYs were able to understand the survey perspective uniformly. The RCYs were oriented about the ways of rapport building and interview techniques with the community people by using KoBo Toolbox. So, the RCYs were easily oriented on the data collection procedure, and they provided their practical feedback after getting the orientation. Finally, they successfully completed the household data collection during the last week of March 2022.

2.4 Quantitative Data Collection and Household Survey

One household survey was conducted, and a set of structured questionnaires was developed for getting the responses from households and women under the Baseline survey. The household questionnaire was developed in consultation among the survey team members including BDRCS, IFRC, PMER representatives. The questionnaire development process also included the review of logical framework and indicators included in the project proposal of IFRP: Phase Two. A field test was conducted before finalizing the questionnaire led by an IFRC representative. For field test, 14 respondents were selected from four communities. Random sampling method was used for the field test and the field test was clarified to the respondents before taking their responses. After completing the interview, the gaps and needs of the questionnaire were identified and feedbacks were incorporated into the questionnaire accordingly and then the final questionnaire was prepared. Finally, the household survey was completed by using KoBo Toolbox on random sampling basis.

Table 1: Sample for the household survey

Union	Name of the Community	Total number of surveyed households in Baseline Survey
Katuli	Isapasha	374
	Andhar Manik	389
Kakua	South Char Pouli	411
	Goyla Hossain	376
Total		**1,550**

All the listed households of the four communities were interviewed under the Baseline Survey. Table 01 shows that a total of 1,550 household's respondents were interviewed. Among the 1,550 households, 374 households of Isapasha and 389 households of Andhar Manik households were interviewed which were under Katuli Union. On the other hand, 411 households of South Char Pouli and 376 households of Goyla Hossain were interviewed under Kakua Union of Tangail Sadar Upazila.

2.5 Qualitative Data Collection

Some significant qualitative data were collected from the community people and different government and non-government stakeholders of Upazila and District level so that the findings from the household survey can be elaborated and broadly explained. The collection of qualitative data was helpful for the discussion, suggestions, and recommendations for the Baseline Study. The community people and different stakeholders under qualitative data collection were chosen by the survey team in consultation with the Unit. It was emphasized to select those stakeholders purposively who have engagement in programme implementation and have the potentiality and necessity to be involved in the programme interventions and activities in the coming days.

Table 2: Plan of FGDs and KIIs

Sl no.	Targeted Stakeholders (at field level)	Place/ Level (Community/Union/Upazila/District)	Tools of qualitative data collection (FGDs and KIIs)	Number
01.	Working Men	Community (Isapasha), Katuli Union & (South Char Pauli), Kakuya	FGD	**02**
02.	Students (male & female)	Community (Isapasha), Katuli Union	FGD	**01**
03.	General Women	Community (Andher Manik), Katuli Union & (South Char Pauli), Kakua	FGD	**02**
04.	Working Women	Community (Gaoula Hossen), Kakua Union	FGD	**01**
05.	Children (male & female)	Community (Gaoula Hossen), Kakua Union	FGD	**01**
06.	Adolescent Girls	Community (South Char Pauli), Kakua	FGD	**01**
07.	Upazila Agriculture Officer	Tangail Sadar Upazila	KII	**01**
08.	Upazila Livestock Officer	Tangail Sadar Upazila	KII	**01**
09.	Upazila Social Service Officer	Tangail Sadar Upazila	KII	**01**
10.	Project Implementation Officer	Tangail Sadar Upazila	KII	**01**
11.	School Teachers	Katuli & Kakua Union	KII	**02**
12.	Imam/Religious leader	Kakua Union	KII	**01**
13.	UP Chairman	Kakua Union Parishad	KII	**01**
14.	Bir Muktijoddha/Freedom Fighter	Kakua Union	KII	**01**
15.	NGO representative (founder)	Kakua Union	KII	**01**
Total		**FGDs=08 and KIIs= 10**		

Table 02 shows that a total of 08 FGDs and 10 KIIs were conducted for the baseline survey. These qualitative data were collected from the community, Union and Upazila levels considering the need and suitability of the stakeholder's roles and responsibilities that will be helpful for the implementation of the programme. Through the collection of these qualitative data, different aspects of the programme aspects of the community areas and implementation issues became clear which will be helpful for the programme team.

2.6 Ensuring Data Quality

All the data were reviewed and checked daily. Spot checking was done during the survey time to review the data collection. Feedback and directions were provided to RCYs as and when needed to maintain the data quality. The interviewed households were randomly revisited during the survey time to cross-check of the data collected by the RCYs.

2.7 Data Processing, Analysis and Report Preparation

Household data were imported from KoBo Toolbox into excel and the data were analysed. Data were displayed through figures and tables based on the need, scope and appropriateness of the chapters and sections of the baseline survey report. Collected data from the field were also compared with survey objectives and interpreted descriptively. By analysing the primary and secondary data, the report was prepared to share with stakeholders and management.

2.8 Ethical Issues

Ethical issues were maintained while doing the fieldwork and the total process of the survey. All the targeted respondents, community people and other stakeholders were informed about the objectives of IFRP: Phase Two, objectives of the baseline survey and activities of BDRCS. The culture and sensitivity of the community people, respondents and other govt. and non-govt. stakeholders were prioritized from the principles and values of RCRC movement. Written permission was taken by proper format from the respondents those opinions and photos had been used in the report. The respondents and community people were clearly informed that the findings of the survey will be used by BDRCS and IFRC for the implementation of interventions of the IFRP: Phase Two as well as achieve community resilience in the targeted programme areas.

2.9 COVID-19 Measures

Although during the baseline survey, there was no sign of COVID-19 in Tangail district and community areas but proper safety, and strict health measures considering were followed during the whole time of fieldwork. All officials of BDRCS and IFRC and the RCYs had worn masks during their community visit and they also used washing materials after a certain time to wash their hands. Social distance was maintained during the baseline survey. This was also followed ruing the RCYs orientation on data collection.

2.10 Limitations of the Survey

Initially, it was supposed to survey 1,624 households of the four communities as per the list of households prepared through the social ranking. But when the programme team started the survey work then it was seen that some of the households were duplicated in the primary list. The survey team then finalised the list with communities and collected data from 1,550 households from four communities. Though that was the limitation, it can also be said to be a good result. Besides, as the programme was designed only for one year, the team had to consider the necessity of to complete Survey as soon as possible. Limited timeframe of the programme was another limitation of the Survey.

3. FINDINGS and DISCUSSION

3.1 Profile of Respondents and Households

Figure 3: Gender of respondents

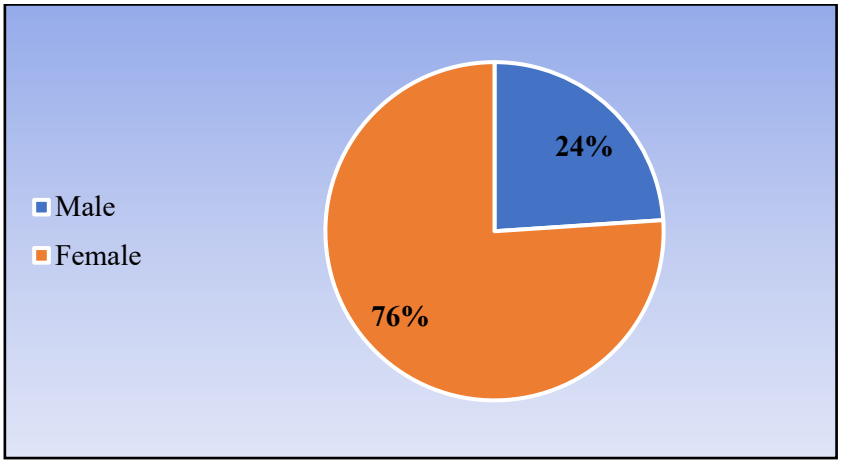


Figure 2 shows that about 76 per cent of the respondents during the household survey were female and 24 per cent of the respondents were male. The household survey was conducted during the daytime. It was seen that most of the male members of the community had to go outside of the household for working purposes. For this, most of the respondents found females.

Table 3: Community-wise status of the population

Sl. no	Description	Community-wise status				Total	Total population of the four communities
		Tangail					
		Katuli Union		Kakua Union			
		Isapasha	Andhar Manik	South Char Pouli	Goyla Hossain		
01	Number of males	815	815	982	913	**3,525**	**6,930**
02	Number of females	827	774	953	851	**3,405**	
03	Persons with disabilities	40	31	30	35	**136**	

Table 3 shows the community-wise status of the population of the four communities accumulated during the Baseline Survey. It was found that a total of 6,930 people of 1,550 households in the four communities. Among them, 3,525 were males and 3,405 were females. A total of 136 persons with disabilities (PWD) were also identified. The persons with disabilities were identified with physical, mental, visual, speech, autism, hearing, and intellectual, and with other multi-disabilities.

Figure 4: Educational qualification of respondents

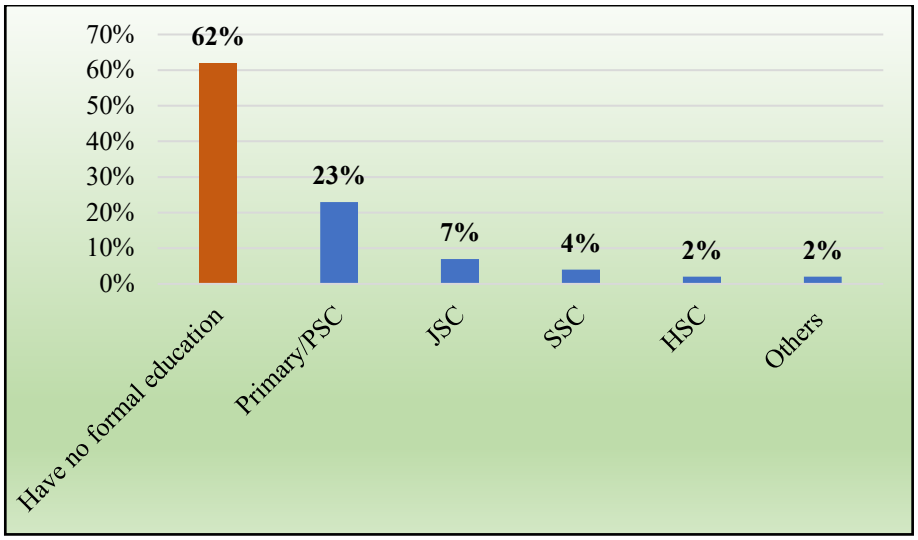


Figure 4 shows the educational qualification status of the respondents who had participated in the household survey. It was found that about 62 per cent of the respondents had no formal or institutional education. About 23 per cent of the respondents had primary/PSC education. On the other hand, about 7 per cent , 4 per cent and 2 per cent of the respondents mentioned they had passed the JSC, SSC and HSC examinations, respectively. Besides, about 2 per cent of the respondents found those who had other educational qualifications like graduation and post-graduation from the local college and with certificates from Madrassah (Islamic Religious School). So, it can be said that there were found very few educated people in the four communities during the household survey. The communities are located beside the Jamuna River as well as flood prone. So, the people of the communities did not get opportunities for education in previous due to different social and economic causes. But nowadays, the rate of education is increasing in the programme areas as most of the boys and girls are going to school. The government has emphasized education for all, and the community people send their siblings to educational institutions.

3.2 Socio-Economic Condition of the Households

Table 4: Main occupation of household heads

Household head's main occupation	*Response (per cent)*
Agriculture	**42 per cent**
Day labouring	**24 per cent**
Rickshaw, auto, van, CNG and other vehicles pulling	**10 per cent**
Business	**7 per cent**
Handicrafts	**5 per cent**
Others (dependent on other members income)	**5 per cent**
Fishing	**3 per cent**
Non-govt. service	**2 per cent**
Tailoring	**1 per cent**
Teacher	**1 per cent**

Table 4 shows the main occupations of the household heads of the programme area. It was found that the household heads of the four communities had diverse types of occupations by which they used to earn and lead their life. The occupation of the household heads was based on the economy considering the rural context. About 42 per cent and 24 per cent per centof the household head's main occupations were agriculture and day labouring. The agricultural works included cultivating one's own lands and

working at the other's lands for leading their life. About 10 per cent of the household head's main occupations were rickshaw, auto and van pulling at Union, Upazila and district level.

About 7 per cent of the household head's main occupations were business. The business dependent household heads used to do different types of business including trade, grocery, small business, buying and selling products. Though most of them do business in the local market located besides their community, some of them were used to business at Union, Upazila, district, and sometimes in the out of the district. About 5 per cent of the household used to lead their income based on handicrafts. This was found for the two communities South Char Pouli and Goyla Hossain of Katuli Union as there is a culture of handicrafts in the adjacent villages and communities located beside the river Jamuna. In the occupation of the handicrafts, they prepare clothes and sell these in the local markets and to the businessmen related in this profession. In this regard, the female members of the households help the male members.

Besides, some of the households' heads were found whose main occupations were non-government service, trailing and teaching. It was also found that some of the household heads had no fixed professions. They usually lead their life by taking support from other people, relatives, UP and Govt. agencies. Some of the households were dependent on the money that they get from their household members working abroad or in the big cities within the country. There were few beggars also in this portion and unable to earn due to physical sickness and weakness and other socio-cultural reasons. The other portion includes about 5 per cent household heads of the targeted area used to lead their household running cost taking money from other members of their households.

On the other hand, most of the women of this community are housewives. They have very limited access to do something for livelihood purposes. They usually help their male members in different household-based works. Some of the women of this community are day laborers in the agricultural field during the crop harvesting season, some rear ducks and hens and domestic cattle in their houses. Besides, some of the women of this community go to the other nearby districts like Gazipur, Dhaka, Narayanganj, Manikganj to work at the garments. Some women have sewing machines to repair and prepare clothes and earn money from this.

Table 5: Secondary occupation of household heads

Household head's secondary occupation	*Response (per cent)*	
Day labouring	**10 per cent**	*Multiple responses*
Agriculture	**8 per cent**	
Rickshaw, auto, van, CNG and other vehicles pulling	**3 per cent**	
Business	**1 per cent**	
Fishing	**3 per cent**	
Handicrafts	**1 per cent**	
Non-govt. service	**1 per cent**	
Tailoring	**1 per cent**	
Teaching	**1 per cent**	

The table 5 shows the secondary occupation of the households' heads. About 10 per cent and 8 per cent of the household head's secondary occupation are day laboring and agriculture. There is lack of sustainable livelihood options for the people of the four communities and most of the people are dependent on agriculture and lay laboring. For a certain time of the year, they face lack of work because of floods and other-socio-economic issues and for this; some of the households choose day laboring and agriculture as their secondary livelihood options. Few of the household heads had some other secondary

occupation like rickshaw, auto, van, CNG and other vehicles pulling; business, fishing, handicrafts, non-govt. service, tailoring and teaching.

Table 6: Household's monthly income and expenditure

Union	*Name of the Community*	*Average monthly income of the households (BDT)*	*Average monthly expenditure of the households (BDT)*
Katuli	Isapasha	5,445	5,826
	Andhar Manik	6,538	6,867
Kakua	South Char Pouli	7,600	8,578
	Goyla Hossain	7,723	7,699
Average income of the community (BDT)		*6,844*	*7,272*

Table 6 shows the average monthly income and expenditure of the households of the four communities. It was found that each of the households had an average monthly income BDT 6,844 and their average monthly expenditure was BDT 7,272. So, the average monthly expenditure of the households was much more than their income.

The table also elaborates the community-wise income and expenditure. The average monthly household-based income of Isapasha community of Katuli was BDT 5,445 and monthly expenditure was BDT 5,826. On the other hand, the average monthly household-based income of Goyla Hossain community of Kakua was BDT 7,723 and monthly expenditure was BDT 7,699. So, the households of this community had more income than their monthly expenditure. The average expenditure of the households' heads of other two communities was much more than the monthly income.

Figure 5: Household's fixed asset

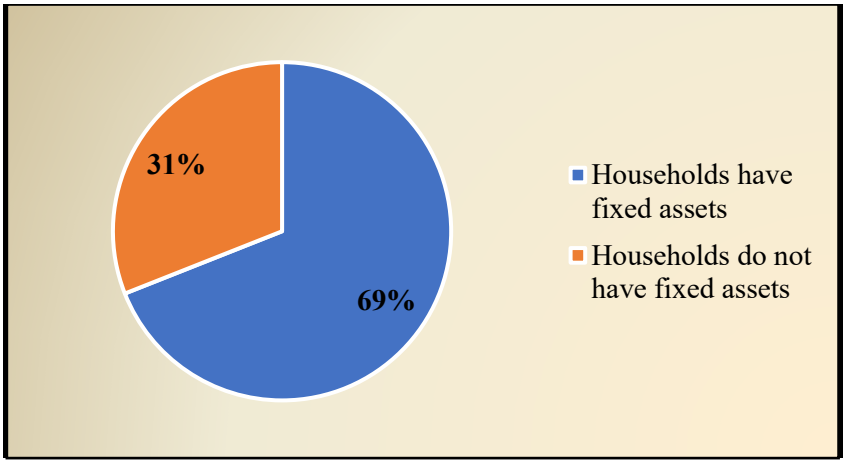


Figure 5 shows that about 69 per cent of the households had some fixed assets. On the other hand, about 31 per cent of the households had no fixed assets. While doing the household survey, it was judged about the fixed assets that were owned by the households which retained the financial values in market and society. Here the owing lands by the household was not considered as the fixed assets, as the information of land was taken in another part of the questionnaire of the survey, and it will be discussed in the next part.

Figure 6: Types of fixed asset of the households

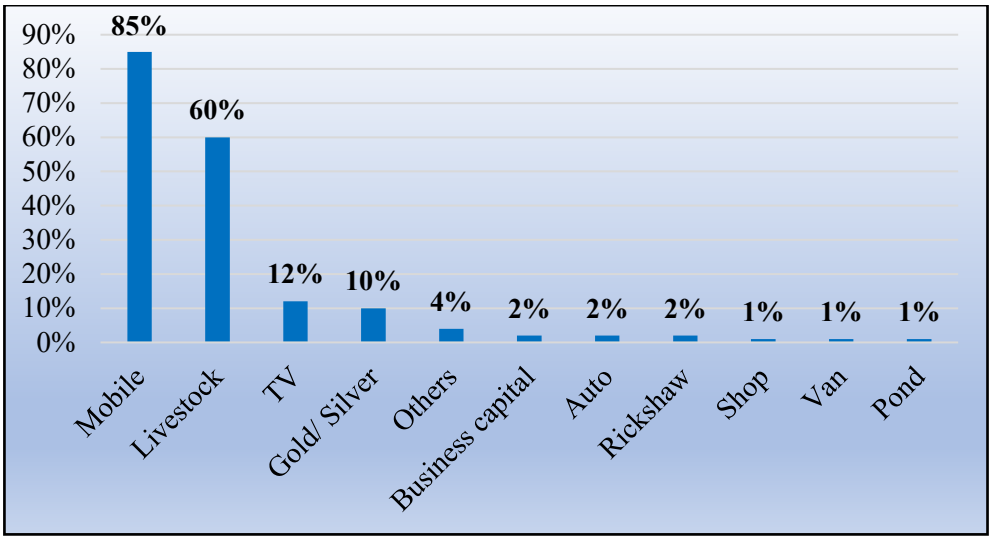


Figure 6 shows the fixed asset condition of the households that they had. About 85 per cent and 60 per cent of the households had mobile and livestock as the fixed assets. On the other hand, about 12 per cent and 10 per cent of the households owned TV and gold/silver. In rural areas of Bangladesh, gold is considered a precious asset. The households had other fixed assets like business capital, auto, rickshaw, shop, van, and pond. Besides, some households had other fixed assets like freeze, motorcycle, domestic cattle, furniture etc.

Figure 7: Own land of the households

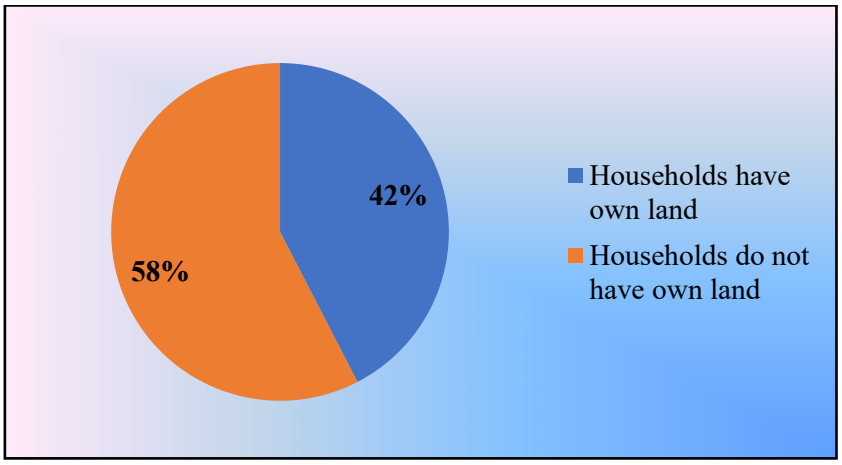


Figure 7 shows that about 42 per cent of the households had their own agricultural and homestead lands. In contrast, the remaining 58 per cent of the households did not have any own land. The land-owners households owned on average 10 decimals homestead lands and 20 decimals agricultural lands. It was found that the households of the South Char Puoli community of Kakua Union had more lands than the other three communities. And the households of Isapasha community of Katuli Union have comparatively less land than the other three communities. Those households were landless, were living in the other's lands and sharing lands with their relatives and parents. As the communities are located in the flood-prone areas, the agricultural lands go to the river due to erosion.

3.3 Ideas about climate change, disaster risk reduction and flood resilience

Figure 8: Respondent's ideas about climate change, DRR, and flood resilience

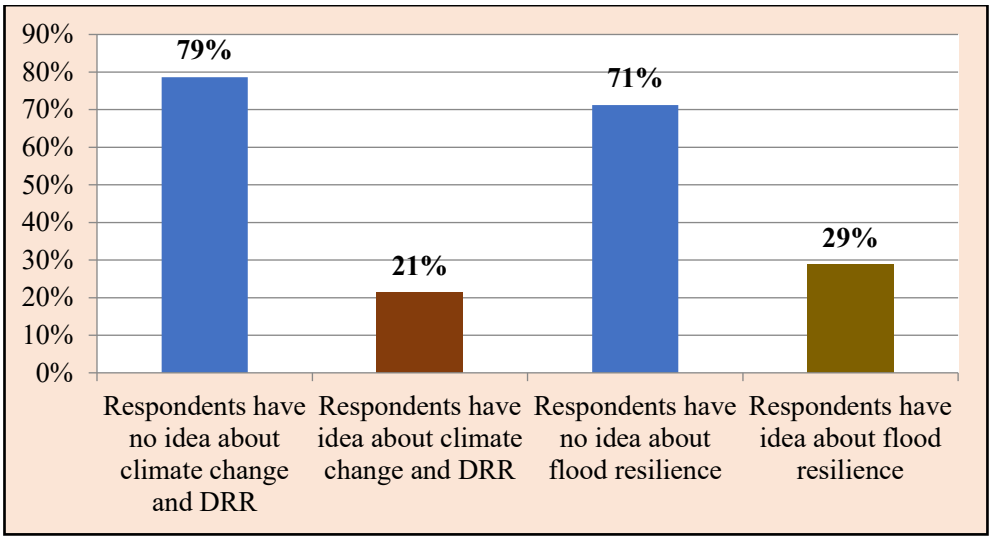


Figure 8 shows that about 21 per cent of the respondents of the four communities had idea about climate change and disaster risk reduction. On the other hand, it was found that about 29 per cent of the respondents had idea about flood resilience. So the community people had no adequate idea about climate change, disaster risk reduction, and flood resilience issues. There are still great opportunities for the programme team to work to enhance the knowledge of the community people on the climate change, DRR and community resilience issues.

But the respondents and community people understand that climate change is visible in the last 15 to 20 years in this area/community. In recent years, it is seen that unnecessary rainfalls are happening in the winter season, but the farmers do not get sufficient water for agriculture when they require for crop reaping. The length of the winter season has shortened than the previous years. The hot weather has been severe for the last 8-10 years ago. The winter does not come at the right time, and it seems that it is late, which was normal in previous years. The flood tendency has increased recently compared to previous years. The flood is happening almost every year in the community which has impacts on the life and livelihoods, safe drinking water, communication system, crops, and agricultures.

Figure 9: Sources of receiving idea about climate change, DRR, and flood resilience

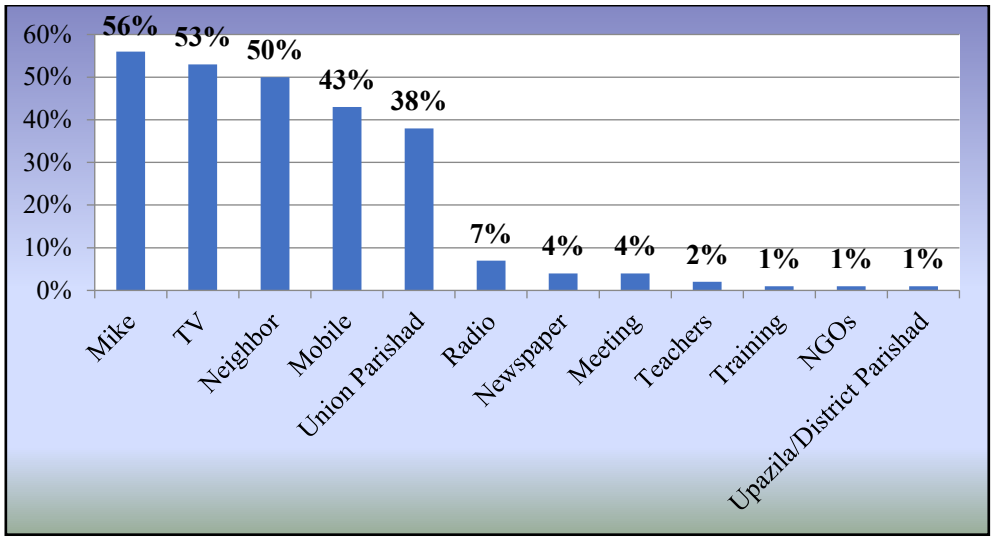


Figure 9 shows the sources by which the respondents and their household members of the four communities who had received information idea/knowledge about climate change, disaster risk reduction and flood resilience from different sources and means. About 56 per cent , 53 per cent and 50 per cent of the household members gained ideas about climate change, DRR and flood resilience from respectively mike, TV, and neighbour. On the other hand, about 43 per cent and 38 per cent of the respondents had received information respectively by mobile and from the Union Parishad. The household members also got information from radio, newspaper, and different meetings. Besides, it was also found that a few household members received information from teachers, various trainings, NGOs, and Upazila/district Parishad.

In district level, the International Day for Natural Disaster Reduction on 13 October and National Disaster Preparedness Day on 10th March a are observed with the joint initiative of the Disaster Management Department under Ministry of Disaster Management and Relief (MoDMR) of Bangladesh Government. During the observation of these days, mock drills and other awareness raising activities are arranged in Upazila level. These also help the community people to know about disaster and climate change issues.

3.4 Major disaster affecting the community people

Figure 10: Disasters affecting the community people

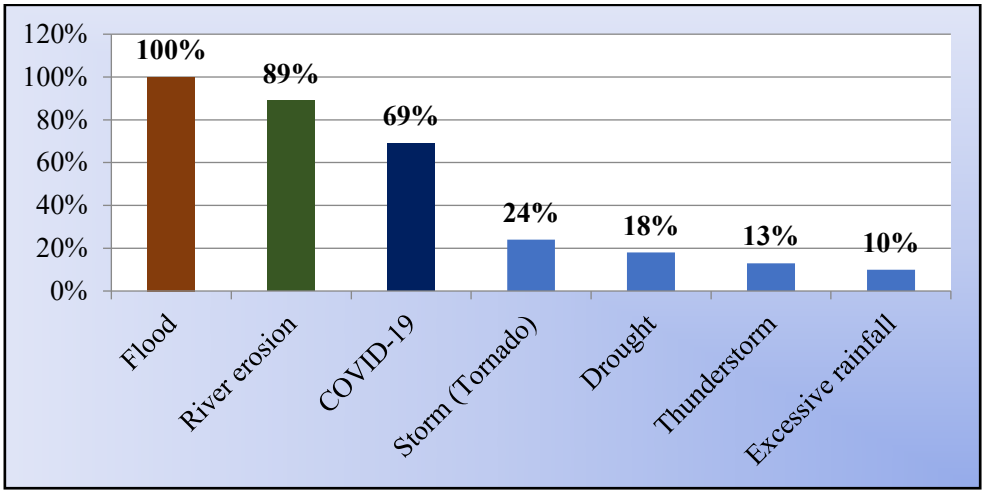


Figure 10 shows the disasters from the community people have been suffering in last 20 years. It was found that the flood was the main disaster at the four communities. All the respondents have mentioned

that the community people have been suffering from flood. Flood is frequent in this area/community and every year the community people face the impacts of the flood. About 89 per cent of the respondents mentioned that river erosion was another disaster for the community people. The river erosion has big impacts on the community people as many households shifted their houses due to river erosion. This has made them as financially tremendously looser because house shifting is an expensive issue as well as socially vulnerable.

On the other hand, about 69 per cent of the respondents mentioned that COVID-19 was another disaster for them as the pandemic has been prevailing in last two years. Though the COVID-19 affected very few of the people of the community physically and there not many COVID-19 patients at the four communities but had social and economic impacts on the community people. During the COVID-19 situation, the people of this Union faced a lot of problems, and their livelihoods were hampered. Small businessmen, auto/van/CNG driver, day laborer had faced most problems from the beginning of the pandemic situation. Some people were forced to change their own professions. Middle-class people suffered the most as they did not have many options to earn money and savings.

Besides, about 24 per cent , 18 per cent , 13 per cent and 10 per cent of the respondents mentioned that storm (Tornado), drought, thunderstorm and excessive rainfall were the other disasters that have been impacting the community people. Besides, it was found that sometimes cold waves and fire incident creates problems for the community people. The respondents and community people mentioned that the climate of this area has changed massively compared to the previous 15 to 20 years. When the people need water for production, they do not get water because the rainfall pattern has changed in recent years. The hot weather is frequent now, and inconsistent rainfall is recurrent. The length of the winter season has shortened from the previous period. The hot weather is now worse than 10 years ago. The winter does not come at the right time, and it seems that it is late which was normal in previous years. The tendency of flood has been devastating the previous times. Nowadays, the flood occurs frequently and in some years four to five times which has been very damaging for the community people and their resources and properties.

Table 7: Impacts of flood on the community people

Impacts of flood on the community people	*Response (per cent)*	
Inundate houses and, roads, marketplaces, and other infrastructure	**70 per cent**	*Multiple responses*
Destroy household and properties	**63 per cent**	
Stop daily working opportunity	**55 per cent**	
Destroy crops and agricultural lands	**49 per cent**	
Make people shelter less	**44 per cent**	
Destroy tube-well/water sources	**31 per cent**	
Inundate latrines	**30 per cent**	
Inundate shelters	**20 per cent**	
Spread diseases	**19 per cent**	

The table 07 shows impacts of flood on community peoples' life and livelihoods. About 70 per cent of the respondents mentioned that flood inundates houses and, roads, market places and other infrastructure of the four communities. About 63 per cent of the respondents said that flood destroys household and properties. On the other hand, about 55 per cent, 49 per cent and 44 per cent of the respondents mentioned that flood stops daily working opportunity, destroys crops and agricultural lands and makes people shelter less. Besides, there are some other impacts of the floods like destroying tube-well/water

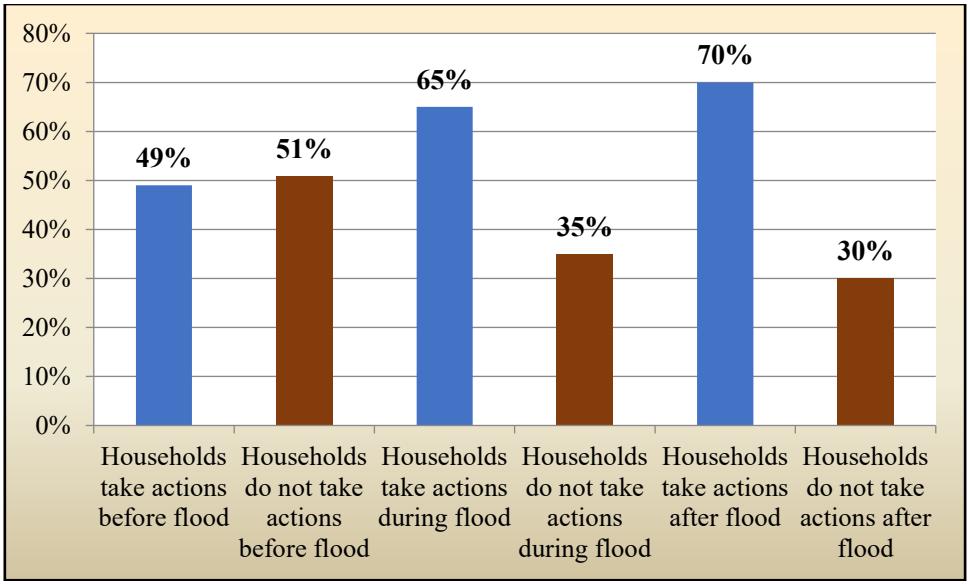
sources, inundating latrines and shelters and spreading diseases were found by the respondents' information.

The impacts of flood were also identified through the qualitative data collection. The community people mentioned that during the flood period, the agricultural lands are affected, and the roads are inundated and destroyed. Besides, the houses of this Union are badly affected by the flood water. During the flood season, the crisis of cattle feeds is frequent, and the pastoral lands are inundated by the flood water. So, the community people face cattle rearing problems during this period.

Flood has also negative impacts on the education of the children as they cannot go to the educational institutions and their academic activities are hampered. During the flood period, the students face communication problem as most of the places of the community and the paths/roads of going to the schools are inundated. Besides, the households of the community do not have adequate boats so that they cannot move to any part of the community. Some students have experiences to have their educational materials/academic books, notes, papers damaged by flood water. They have experiences that the academic activities were continued by the school authority during the flood period, but they could not attend at the schools. Because their schools are in those areas which are not located in non-flood-prone areas. But the students missed the academic activities like classes and class-based examination as they had not attended at the schools in right time.

3.5 Community People's Actions to Flood and Early Warning Message

Figure 11: Household's actions to flood



The figure 11 shows that about 49 per cent of the households of the four communities take actions and preparedness before flood. On the other hand, about 65 per cent and 70 per cent of the households takes actions during and after the flood. The next table shows the community wise scenario of households' actions before, during and after flood.

Table 8: Community scenario of the household actions before flood

Union	*Name of the Community*	*Households take actions before*	*Households do not take actions*	*Households take actions during*	*Households do not take actions*	*Households take actions*	*Households do not take actions*

		flood (per cent)	*before flood (per cent)*	*flood (per cent)*	*during flood (per cent)*	*after flood (per cent)*	*after flood (per cent)*
Katuli	Isapasha	**46 per cent**	54 per cent	**66 per cent**	34 per cent	**70 per cent**	30 per cent
	Andhar Manik	**46 per cent**	54 per cent	**64 per cent**	36 per cent	**69 per cent**	31 per cent
Kakua	South Char Pouli	**50 per cent**	50 per cent	**63 per cent**	37 per cent	**70 per cent**	30 per cent
	Goyla Hossain	**53 per cent**	47 per cent	**66 per cent**	34 per cent	**72 per cent**	28 per cent

As flood is frequent in the four communities and every year the community people face the impacts of the flood. The households take the preparation of flood by their own initiatives to reduce loss before and during the flood and recover after the flood situation. The table 8 shows the community scenario of the household's actions to flood. It was found that about 46 per cent of the households of Isapasha and Andhar Manik community of Katuli Union take actions before flood. About 50 per cent and 53 per cent of the households South Char Pouli and Goyla Hossain community of Kakua Union get preparations before coming the flood. On the hand, about 66 per cent, 64 per cent , 63 per cent and 66 per cent of the households of Isapasha, Andhar Manik, South Char Pouli and Goyla Hossain community respectively take actions when the flood occurs at the communities. Besides, it was also found that the households of the four communities also take actions after the flood. About 70 per cent of the households of Isapasha and South Char Pouli take actions after the flood period. And about 69 per cent and 72 per cent of the households of Andhar Manik and Goyla Hossain community take actions after the flood period. The households' actions to before, during and after flood include a lot of initiatives and preparations that will be deeply discussed in the next tables.

Table 9: Types of actions taken by the households before flood

Types of actions taken by the households before flood	*Response (per cent)*	
Preserve food and fuel	**78 per cent**	*Multiple responses*
Save money	**68 per cent**	
Raise the household plinth	**51 per cent**	
Prepare safe place for domestic animal	**24 per cent**	
Take information about the flood shelter	**21 per cent**	
Raise the platform of tube-well and latrine	**16 per cent**	
Inform community people to be prepared for flood	**13 per cent**	

The community people usually take different types of actions before the flood. The table 9 shows that about 78 per cent of the respondents mentioned that the community people preserve food and fuel before the flood period. About 68 per cent, 51 per cent and 24 per cent of the respondents mentioned that the community people save money, raise the household plinth, and prepare safe place for domestic animal as the part of taking actions before flood. Besides, about 21 per cent, 16 per cent and 13 per cent of the respondents mentioned that the community people take information about the flood shelter, raise the platform of tube-well and latrine and inform community people to be prepared before the flood period.

Table 10: Types of actions taken by the households during flood

Types of actions taken by the households during flood	*Response (per cent)*	

Shift properties and materials in safe places	**74 per cent**	*Multiple responses*
Lend money	**49 per cent**	
Sell livestock	**39 per cent**	
Collect relief if provided	**27 per cent**	
Take shelter on roads or shelter centres or neighbour or relative house or rooftop	**24 per cent**	
Work together to reduce flood loss	**20 per cent**	
Advise others to shift and take safe shelter	**17 per cent**	
Boil water before drinking	**5 per cent**	

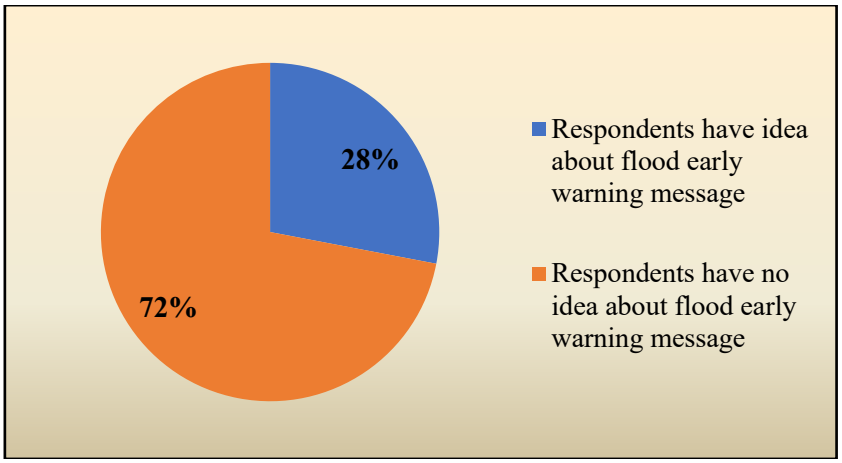
The community people also take different types of actions during the flood. The table shows that about 74 per cent, 49 per cent and 39 per cent of the respondents mentioned that the community people shift their properties and materials in safe places, lending money and sell livestock during the flood period. On the other hand, about 27 per cent , 24 per cent and 20 per cent of the respondents mentioned that the community people collect relief if provided, take shelter on roads or shelter centres or neighbour or relative house or rooftop and work together to reduce flood loss during the flood period. There were no specialized shelter centres for the community people of the four communities where they can take shelter during the flood period. But the government administration (Upazila and UP) used the schools and educational institutions as the shelter centres during the flood period. Some of the respondents mentioned that the community people advise others to shift and take safe shelter. In addition, only 5 per cent of the community people boil water before drinking during the flood period which is a major challenge for them to be affected with water-borne diseases and health hazard induced from the flood. Because the do not get convenient situation and necessary materials to boil water during the flood period.

Table 11: Types of actions taken by the households after flood

Types of actions taken by the households after flood	*Response (per cent)*	
Repair damaged houses	**84 per cent**	*Multiple responses*
Lend money	**47 per cent**	
Back to household	**37 per cent**	
Sell assets	**36 per cent**	
Collect relief and other support if provided	**34 per cent**	
Communicate with UP representative and other service providing organizations	**15 per cent**	

The earlier tables 9 and 10 described the actions that are usually taken by the community people before and during flood. The table 11 shows the actions by the community people taken after the flood. About 84 per cent of the respondents mentioned that the community people repair their damaged houses affected by the flood. About 47 per cent, 37 per cent, 36 per cent and 34 per cent of the respondents mentioned that the community people lend money, back to their household, sell assets and collect relief and other support if provided respectively after the flood period. Some of the respondents mentioned that the community people communicate with UP representative and other service providing organizations to recover their flood loss. The community people always try to go back to their previous life and recover their loss after the flood period.

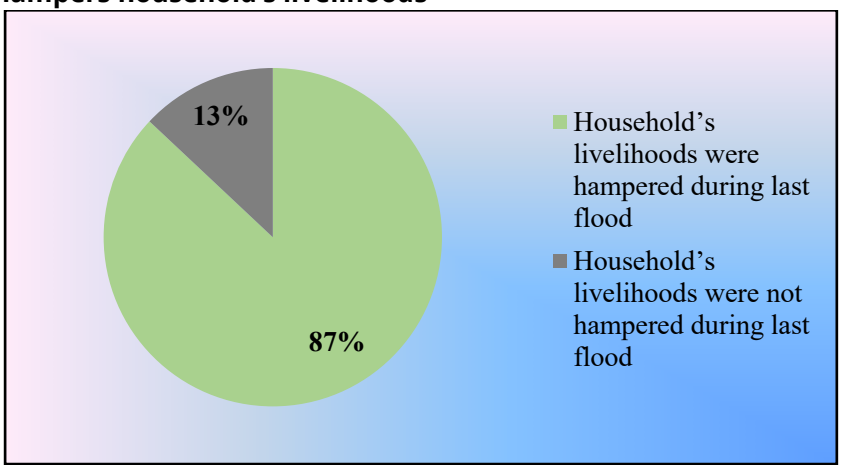
Figure 12: Respondent's idea about flood early warning message



The figure 12 shows that about 28 per cent of the respondents informed that they have knowledge on flood early warning message. Among the 28 per cent of the respondents, about 25 per cent of the respondents previously received message on flood early warning from miking, TV, neighbour, mobile, Union Parishad, different meeting, radio, newspaper, training, and NGOs. It was found that there was no established flood early warning system at the four communities by which the community people get warning before the flood comes. The community people depend on their own knowledge (especially from the older/experienced people) to anticipate the flood risk.

3.6 Livelihoods

Figure 13: Flood hampers household's livelihoods



The figure 13 shows that about 87 per cent of the respondents mentioned that their households' livelihoods were hampered during last flood. The respondents informed that floods are the most common disaster for them has negative effects on the livelihoods. And during the last flood the community people tried to earn in an alternative way. But most of the people did not get the opportunities because they had very limited options of earnings and they were forced to spend their savings.

Table 12: Pattern of livelihood hampering during the last flood

Pattern of livelihood hampering to the community people	*Response (per cent)*
No occupational works	**61 per cent**
Destroy property	**49 per cent**
Restrict community people's movement	**47 per cent**

Make crop loss	**42 per cent**	*Multiple responses*
Reduce household's income for a certain time	**39 per cent**	
Loss of domestic animals	**26 per cent**	
Loss of fruits and trees	**21 per cent**	
Destruction of business materials	**3 per cent**	
Loss of fisheries and others	**1 per cent**	

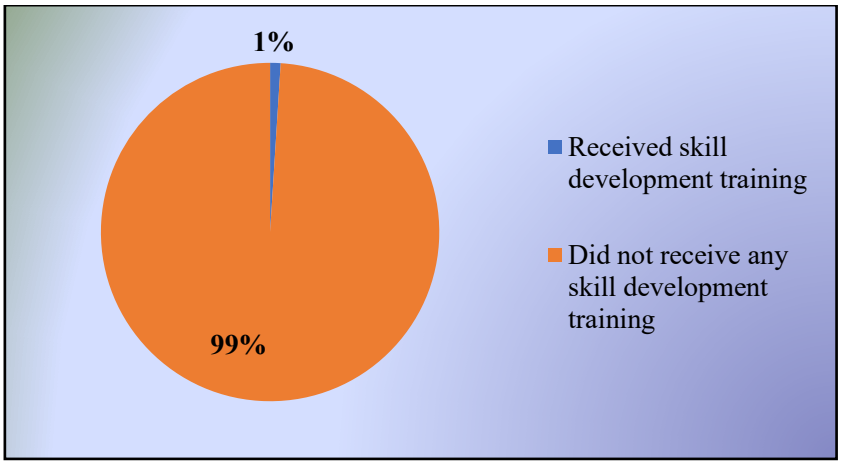
The table 12 shows the pattern of livelihood hampering to the community people during the last flood. About 61 per cent of the respondents mentioned that the community people had no occupational works during last flood. About 49 per cent , 47 per cent , 42 per cent and 39 per cent of the respondents mentioned that the last flood destroyed properties, restricted community people's movement, made crop loss and reduced income for a certain time. About 26 per cent and 21 per cent of the respondents mentioned that flood loss of domestic animals and fruits and trees were the results of the flood. Besides, flood destructed business materials and made loss of fisheries and others.

Table 13: Community people's coping with the challenges from the last flood

Community people's coping with the challenges after flood	*Response (per cent)*	
Reduce daily cost	**64 per cent**	*Multiple responses*
Use savings	**48 per cent**	
Borrow from other	**47 per cent**	
Take loans (NGO/community's rich people)	**45 per cent**	
Temporary/permanent migration to other places for working purpose	**39 per cent**	
Go through starvation	**13 per cent**	
Forced asset selling (livestock, boat, gold, lands)	**9 per cent**	
Get financial support from govt. and non-govt. agencies	**7 per cent**	
Receive gift from in laws houses	**3 per cent**	
Send children for working to other places (cities/towns)	**1 per cent**	

It was found that the community people had different practices to cope with the challenges of flood. The table 13 shows that about 64 per cent of the households reduce daily cost to cope with the flood situation. On the other hand, about 48 v of the households use their savings. About 47 per cent and 45 per cent of the households borrow from other and take loans (NGO/others). After the flood, many of households of the four communities must take loans to recover their sudden loss and cope with the changing situation. They usually take the loan from the local rich people of this Union and in sometimes from the Upazila/Union level cooperative originations. Some like NGOs like Bureau Bangladesh, New Star, and BRAC have been working in the programme areas and providing loan/micro-credit to the people as per their policy. The community people take loans and pay back them with interest after a certain period. About 39 per cent of the households usually make temporary/permanent migration to other places for as the coping strategy to the flood. Besides, some other households go through starvation, sell the assets (livestock, boat, gold, lands) and get financial support from govt. and non-govt. agencies. The community people get some relief and cash support from local rich persons after the flood period. They get rice, dal, salt, species etc. as the part of the supports under the relief. It was also found that someone receive gift from in laws houses and send children for working to other places (cities/towns) for recovering the immediate loss of the flood.

Figure 14: Receiving skill development training to improve options in last three years



The figure 14 shows that only 1 per cent of the respondents or their household members received skill development training to improve livelihood/income generating option in last three years. The rest 99 per cent of the respondents or their household members did not get any type of this opportunity. The training receivers got training on agriculture, animal-husbandry/poultry rearing, fisheries, technical and vocational training, tailoring and small cottage from local/private training centre, Upazila and district Govt. office. There were specific training centres located near to the community that provide training to the community people to improve the livelihoods situation of the community people considering the flood vulnerability and local context. Some community people go to the Upazila district and some to the cities Dhaka, Gazipur for training to improve their livelihood situation. They have known about the training from neighbours, Union Parishad, relatives, Govt. offices/training centre and local people. But it was found that the trainings did not include any disaster risk aspects that would be helpful for the community people to improve livelihoods and overcome the flood risk.

Table 14: Necessary trainings for the community people to improve their livelihoods

Necessary trainings for the community people to improve their livelihoods and enhance income	*Response (per cent)*	
Training on animal-husbandry/poultry rearing	**77 per cent**	*Multiple responses*
Training on agriculture	**65 per cent**	
Training on tailoring	**23 per cent**	
Training on small business/retailing	**20 per cent**	
Training on small cottage	**9 per cent**	
Training on fisheries	**8 per cent**	
IT training	**3 per cent**	
Technical and vocational training	**2 per cent**	

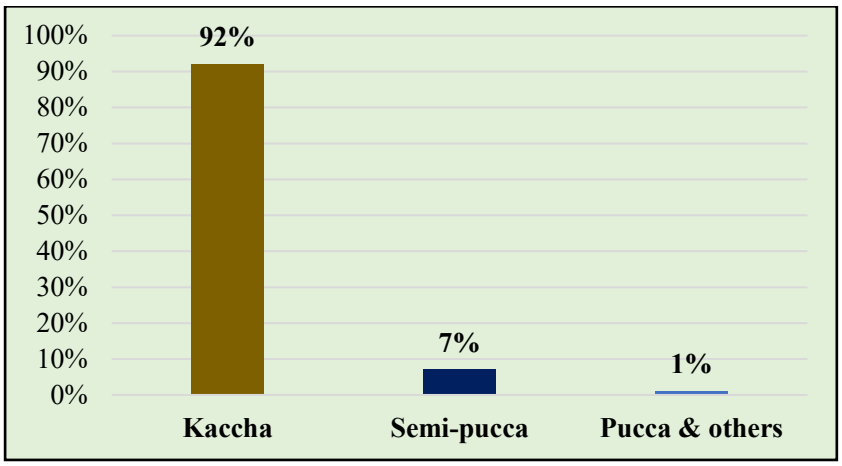
The table 14 shows the trainings requirement from the community people that will be helpful for them to improve their livelihoods and enhance income. About 77 per cent of the respondents mentioned that training on animal-husbandry/poultry rearing will be helpful for the community people. On the other hand, about 65 per cent of the respondents mentioned that training on agriculture is essential because the community people should have expertise on modern agricultural technique to booster production. About 23 per cent and 20 per cent of the respondents mentioned that training on tailoring and small business/retailing will be helpful for the community people. Besides, some other suggested training like on small cottage, fisheries, IT and technical and vocational training can be provided to the selected community people.

In this regard, Upazila Agriculture Office, Upazila Livestock Office, Upazila Social Service Office and Upazila Project Implementation Office of Tangail Sadar and the two Unipn Parishad will provide necessary supports to BDRCS if the organization wants to make the community skilled up on the

livelihoods aspects to enhance their income. The support from these organizations can be taken by BDRCS to sensitize the communities and do advocacy to make the livelihood intervention successful.

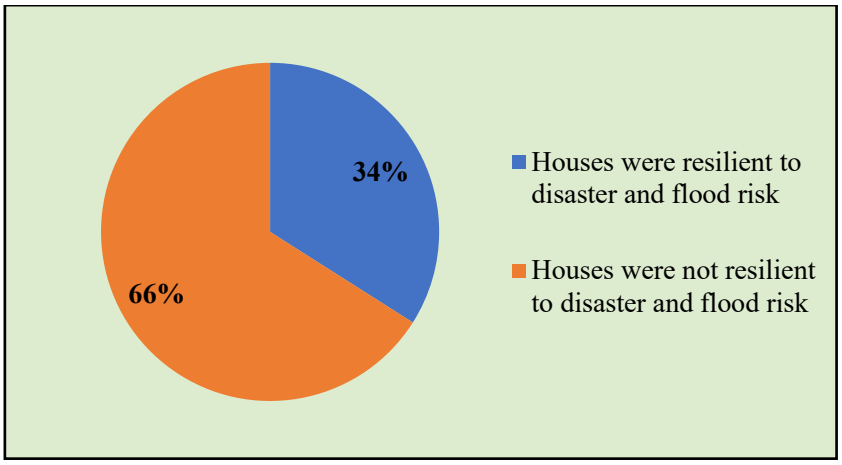
3.7 Shelter

Figure 15: Pattern of houses of living



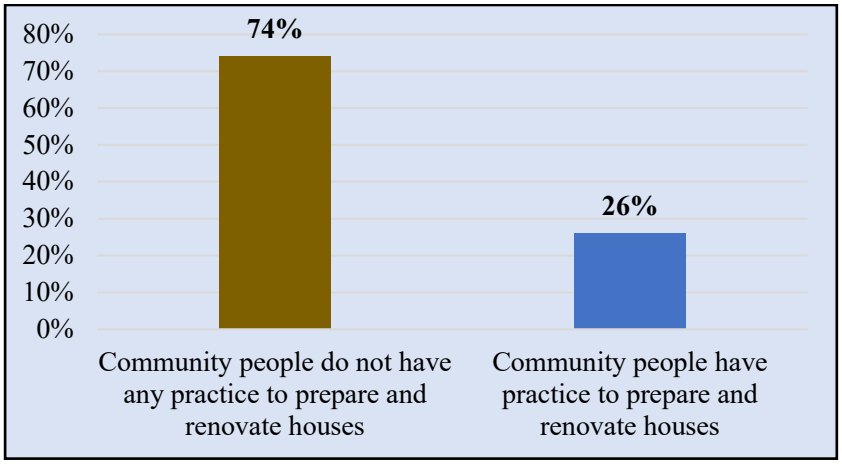
The figure 15 shows that about 92 per cent of the respondent's houses were found as Kaccha. Only 7 per cent of the respondent's houses were found semi-pucca whereas rest of the 1 per cent of the houses was pucca and others like hut. Flood and river erosion are the big problems for the community people houses. Many of the households were displaced by river erosion and they were forced to shift their houses to other places. Beside this, many people of this Union lost their homestead and agricultural lands due to river erosion and these lands had gone to the Jamuna River. As the communities are flood and river-erosion prone, it was found that many of the households had experiences to shift their houses in different times for the impacts of disaster and climate change. For this, most of the households did not have the focus and courage to build permanent infrastructure like pucca houses for this reason as well as for the fragile economic reasons of the community people.

Figure 16: Resilient houses to disaster and flood risk



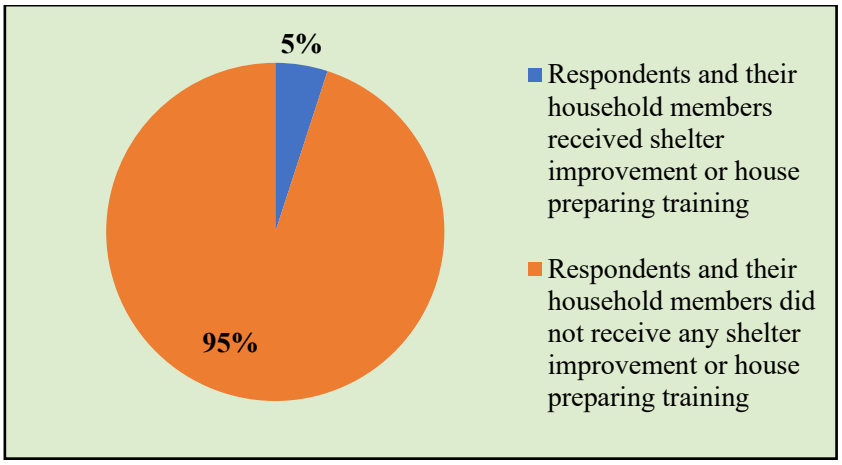
The figure 16 shows that about 34 per cent of the respondents considered their houses as resilient to any type of disaster and flood risk. On the other hand, the rest 66 per cent of the respondent's houses were not capable to face the impact of flood or any other disaster. So, most of the households were affected and destroyed while flood or any type of disasters occurred at the communities. Here, they provided opinion from their experiences of the period of flood or any other disasters that they had faced.

Figure 17: Community's practice to prepare or renovate houses considering the flood risk



The figure 17 shows that about 26 per cent of the respondents mentioned that there was community practice before preparing and renovating houses considering flood risks through community consultation. The community people usually do different types of initiatives like arranging meeting and open discussion with the community people, helping each other to prepare or renovate house and taking advice from the local expert, private or public organizations to prepare and repair their houses the reduce the flood risks.

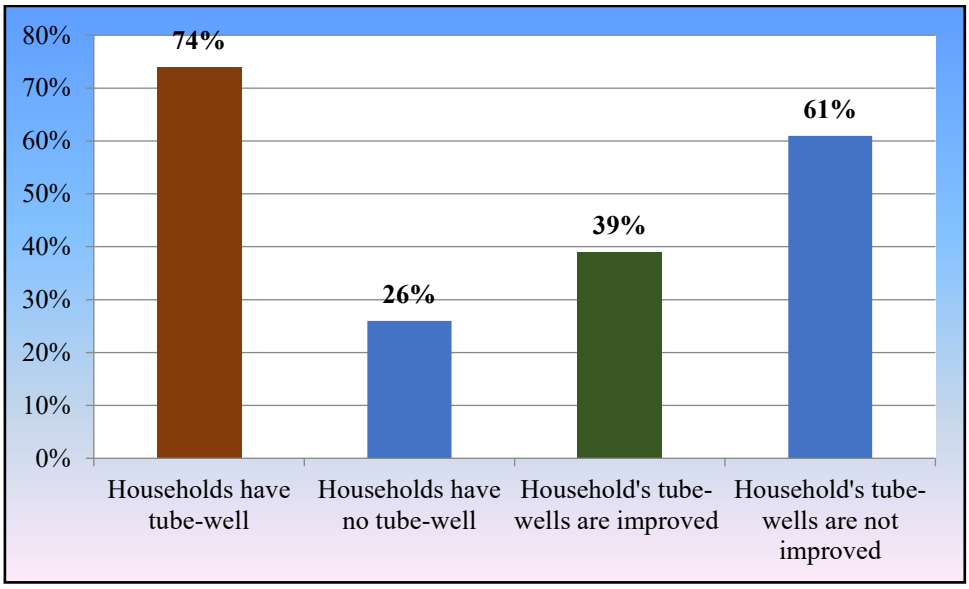
Figure 18: Receiving shelter improvement or house preparing training



The figure 18 shows that about 95 per cent of the respondents mentioned that they and their household members did not receive any shelter improvement or house preparing training. It was found that the community people used to hire local house making professionals to prepare and repair their houses. Though it was found that 5 per cent of the respondents and their household members got training in this regard but they achieved it by traditionally and looking the works of others.

3.8 Water, Hygiene and Sanitation (WASH) Situation of the Community

Figure 19: Major sources of drinking water and household's own and improved tube-wells

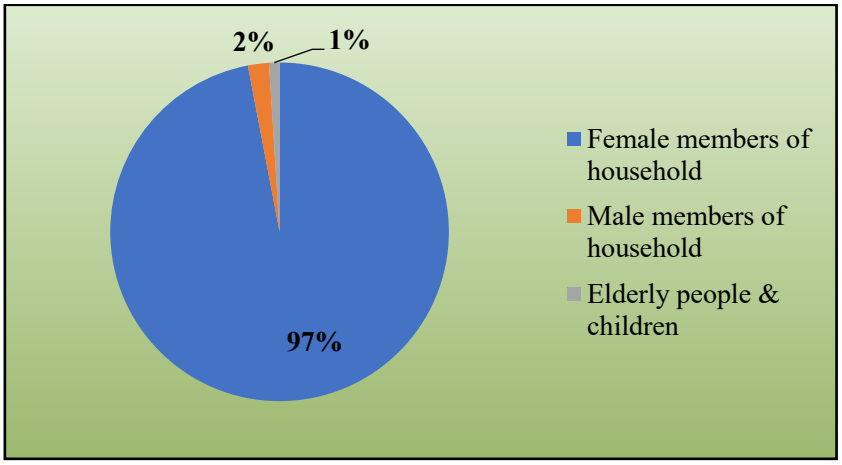


It was found that all households of the four communities used tube-well as the major source of drinking water. The figure 19 shows that about 74 per cent of the households had own tube-well for drinking water. On the other hand, about 26 per cent of the households did not have any own tube-wells.

Among the households those had tube-wells about 39 per cent of the tube-wells were found as the improved considering its physical structure, distance from the latrine, water quality and maintenance by the household members. On the other hand, the rest 26 per cent households that had no tube-wells collect drinking water from different sources. About 24 per cent of them collect drinking water from neighbour's tube-wells and about 5 per cent collect drinking water from different institutions like school, college and mosque.

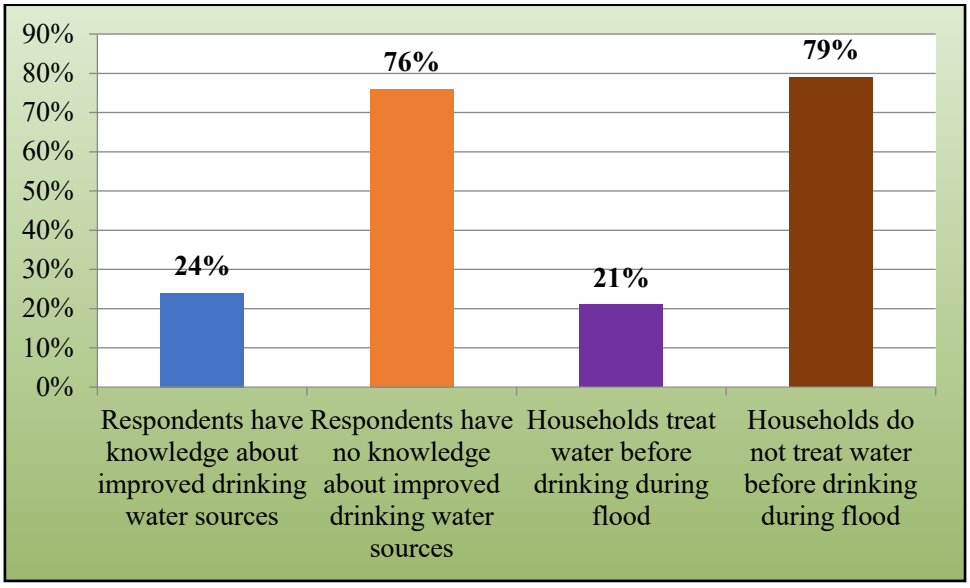
It was found that the drinking water quality of the four communities and the two Unions was not good. The tube-wells are contaminated with arsenic and iron. Besides, during the flood period, the tube-wells of the communities are inundated, and the community people face problems of safe drinking water. Around 60 per cent of the tube-wells of the four communities are inundated when flood occurs. Besides, most of the tube-wells of the four communities need to be tested to make sure that the tube-wells contain arsenic or not. Because most of the households are not sure about the water quality status of their tube-wells. So, getting safe drinking water is a problem for the community people.

Figure 20: Drinking water collector for household purposes



The figure 20 shows that the female members of 97 per cent of the households usually collect drinking water whereas only 2 per cent of the male members help their household for drinking water collecting purposes. Besides, in few cases the elderly people of the households and children collect water for drinking purposes. About 97 per cent of the members of the households collect drinking water from less than less than 1640 feet/half kilometres and the rest 3 per cent collect from more than half kilometres but less than one kilometre distance.

Figure 21: Respondent's knowledge about improved drinking water sources and treating water before drinking during flood



The figure 21 shows that only 24 per cent of the respondents and its household members had proper knowledge about improved water and its sources. The rest 76 per cent of the respondents did not have proper knowledge about it. On the other hand, only 21 per cent of the households treat water before drinking during the flood period. So, the rest 79 per cent per cent of the households of the four communities cannot treat water during flood period for various reasons like lack of fuel, inundation of houses, flooding to fuel materials, leaving their houses and taking shelter in other places during the flood period.

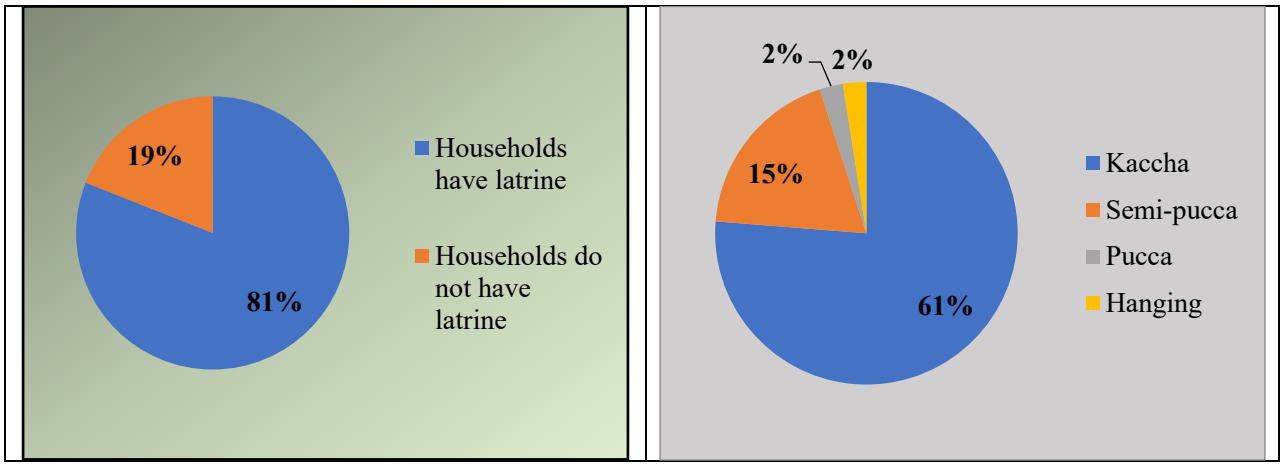
Table 15: Household's sources of water during flood period

Sources of water for drinking purposes	*Response (per cent)*	*Sources of water for domestic purposes*	*Response (per cent)*	*Multiple responses*
Well-functioning tube-wells	**64 per cent**	Tube-wells	**99 per cent**	
Inundated tube-wells	**43 per cent**	River	**19 per cent**	
River	**7 per cent**	Rainwater	**11 per cent**	
Pond	**3 per cent**	Pond	**3 per cent**	
Neighbour's tube-wells	**1 per cent**	Others	**1 per cent**	

The table 15 shows household's sources of sources of water for drinking and domestic purposes during the flood. For drinking purposes, about 64 per cent of the households use well-functioning tube-wells and 43 per cent of the households have to use water from inundated tube-wells. Besides, some of the households use river water and few of the households use water from pond and neighbour's tube-wells.

On the other hand, for domestic purposes, about 99 per cent and 19 per cent of the households use tube-wells water and river water. It was found that the households have also tendency to use rainwater, and, in few cases, they use pond water and others like reserved water in drums and reservoir.

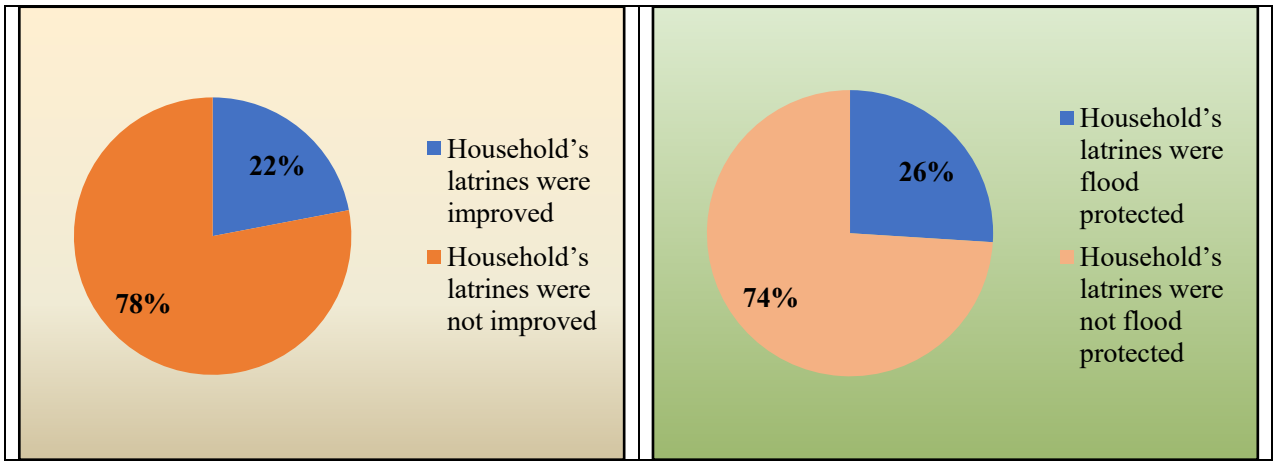
Figure 22: Household's latrines and its types



The figure 22 shows that about 81 per cent of the households had their own latrines whereas rest 19 per cent of the households of the four communities had no latrine. That means, about one-fifth of the households had no latrine for defecation. The 81 per cent households that had latrines possess different types of latrines like about 61 per cent and 15 per cent of the households had kaccha and semi-pucca latrines. About 2 per cent of the households had pucca and hanging latrines, respectively.

The rest 19 per cent of the households those had no latrines use neighbour latrines (13 per cent) and shared latrine (9 per cent). Besides, it was also found that 2 per cent of the households' members had habit to open defecation due to lack of own latrines. The average distance of the latrines from living room was 24 metres and drinking water source was 13 metres. During the flood period, the household members defecate by different ways. They use latrines, defecate in flood water, use the latrine of shelter centres, and defecate openly.

Figure 23: Household's improved and flood protected latrines



The figure 23 shows that only 22 per cent of the latrines were found as improved at the four communities. The rest 78 per cent latrines of the communities were not improved. On the other hand, about 26 per cent of the latrines of the communities were protected from flood. The rest 74 per cent of the latrines were not protected and inundated during the flood period.

Table 16: Respondent's idea about improved and hygienic latrine, using sandal during defecation and washing hands by using soap/mud after defecation

Item	*Description*	*Response (per cent)*
Idea about improved and hygienic latrine	Respondents have idea about improved and hygienic latrine	**25 per cent**
	Respondents do not have idea about improved and hygienic latrine	**75 per cent**
Using sandal during defecation	Respondents and their household members use sandal during defecation	**78 per cent**
	Respondents and their household members do not use sandal during defecation	**22 per cent**
Washing hands by using soap/mud after defecation	Respondents and their household members wash hands by using soap/mud after defecation	**84 per cent**
	Respondents and their household members do not wash hands by using soap/mud after defecation	**14 per cent**

The table 16 shows that about 25 per cent of the respondents have idea about improved and hygienic latrine and the rest of 75 per cent of the respondents do not have idea about it. On the other hand, about 78 per cent of the respondents and their household members use sandal during defecation which is a positive finding. Besides, about 84 per cent of the respondents and their household members wash hands by using soap/mud after defecation.

Table 17: Respondent's idea about proper hand washing technique, menstrual hygiene management and household's practice of covering foods

Item	*Description*	*Response (per cent)*
Idea about proper hand washing technique	Respondents have idea about proper hand washing technique	**27 per cent**
	Respondents do not have idea about proper hand washing technique	**73 per cent**
Idea about menstrual hygiene management	Respondents have idea about menstrual hygiene management	**78 per cent**
	Respondents do not have idea about menstrual hygiene management	**22 per cent**
Household's practice of covering foods	Households cover food items properly and hygienic way	**42 per cent**
	Households do not cover food items properly and hygienic way	**58 per cent**

The table 17 describes the respondent's idea about proper hand washing technique, menstrual hygiene management and household's practice of covering foods. It was found that only 27 per cent of the respondents had idea about proper hand washing technique. And the rest 73 per cent had no idea in this regard. But it was found about 78 per cent of the respondents have idea about menstrual hygiene management. They know what women and girls should maintain hygiene and physical safety during the period. In the qualitative research it was found that many adolescent girls were not aware about proper menstrual hygiene management. They did not get proper education and guidance about this issue from their school or household. In most of the cases, they use old clothes, but they do not know how to properly manage menstrual health during the period. They did not have any idea about the consequences of the unhygienic menstrual practices. On the other hand, the survey team found that only 42 per cent of the households use to cover food items properly and hygienic way. This was identified on observation by the survey team members.

Table 18: Respondent's and their household member's practices of washing hands with soaps

Respondents and their household members wash hands with soaps in the following times	*Response (per cent)*	
After defecation	**88 per cent**	*Multiple responses*
Before eating	**57 per cent**	
Before cooking	**30 per cent**	
After cleaning baby's bottom	**23 per cent**	
Before feeding babies	**15 per cent**	
Before preparing foods	**14 per cent**	
Before serving foods	**11 per cent**	
After coming from outside of the home	**9 per cent**	

The table 18 shows the status of respondent's and their household member's practices of washing hands with soaps. It was found that the respondents and their household members used to wash hands with soaps in different times including the five critical times of hand washing. About 88 per cent of the respondents and their household members wash hands with soaps had habit to wash after defecation. About 57 per cent , 30 per cent , 23 per cent and 15 per cent of the respondents and their household members used to wash tube-well hands with soaps before eating and cooking, after cleaning baby's bottom and before feeding babies. Besides, some of the respondents and their household members used to wash hands with soaps before preparing and serving foods and after coming from outside of the home.

3.9 Health Situation of the Community people

Table 19: Place of taking treatment and medicine by the community people

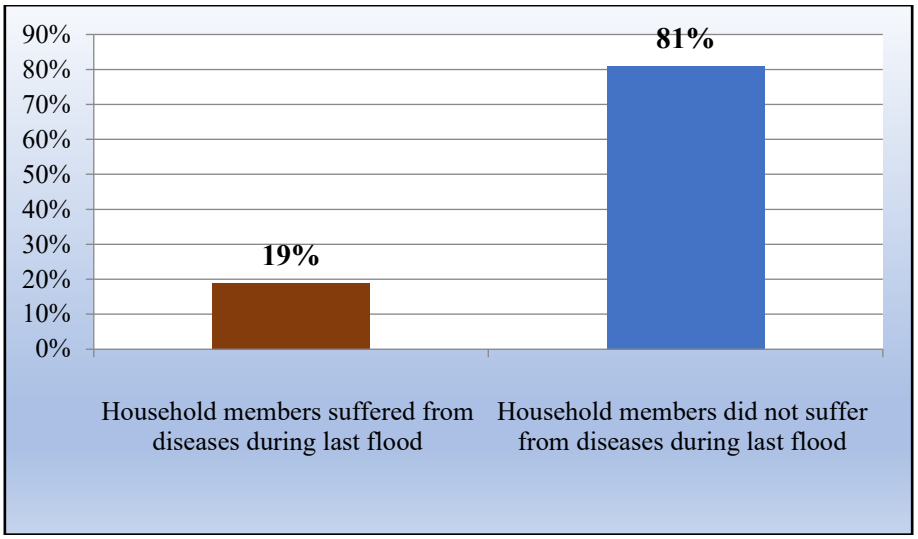
Household members mostly go for taking treatment	*Response (per cent)*	
Village doctor [1]	**71 per cent**	*Multiple responses*
Near pharmacy	**56 per cent**	
Community clinic	**35 per cent**	
GoB hospital (Upazila/district)	**34 per cent**	
Kobiraj	**24 per cent**	
Private clinic	**11 per cent**	
Local paramedic	**2 per cent**	
Upazila/Sadar private clinic	**2 per cent**	

The table 19 shows place of taking treatment by the community people. About 71 per cent of the community people take treatment and medicine from the village doctor whereas 56 per cent of the community people go to near pharmacy for treatment and medicine. On the other hand, about 35 per cent, 34 per cent and 24 per cent of the community people go to the community clinic, GoB hospital (Upazila/district) and Kobiraj. Only 11 per cent of the community people had capacity to take treatment from private clinic. Besides, few community people go to local paramedic and Upazila/Sadar private clinic for treatment purpose.

In the communities, there is a lack of health facilities, and the community people must travel to nearby communities to get the health services. For this, many people do not feel encouraged to go to the health complex. Most of the cases they take treatment from the medical store and local doctors. Financial reasons are one the factors behind this health scenario among the community people. In the critical cases, they must go to the district hospital to get treatment.

Figure 24: Suffering from diseases during last flood

[1] In Bangladesh, village doctors are defined as informal healthcare providers and medicine practicing along with all opathic medicine. Some of them have specialized trainings and most of them have been practicing traditionally.



The figure 24 shows that about 19 per cent of the respondents mentioned that their household members had suffered from types of diseases during the last flood. So, when the flood occurs at the communities then the community people suffer different types of diseases. Among the 19 per cent of the households, their members mostly suffer from fever and cold influenza. Besides, scabies, diarrhoea, abdominal pain, and dysentery are the common diseases for the community people during the flood period. Averagely, one person of the affected households suffered from the flood induced diseases like vector, food, and water-borne diseases

Table 20: Pregnant women care by the households

Taking health services and advice for the pregnant women	*Response (per cent)*	*Nutritious foods taken by the pregnant women*	*Response (per cent)*	
Household-based health services[2] /support from family members and neighbours	**62 per cent**	Egg	**79 per cent**	*Multiples responses*
Govt. hospitals	**58 per cent**	Vegetables	**73 per cent**	
Community clinic services	**30 per cent**	Fish	**73 per cent**	
Kobiraj	**27 per cent**	Rice	**55 per cent**	
Private clinic	**11 per cent**	Milk	**54 per cent**	
Local paramedic	**7 per cent**	Meat	**39 per cent**	
NGO services	**2 per cent**	Fruits	**34 per cent**	
		Potato	**30 per cent**	

[2] Household-based health services refer to physical and mental support from family members and neighbours.

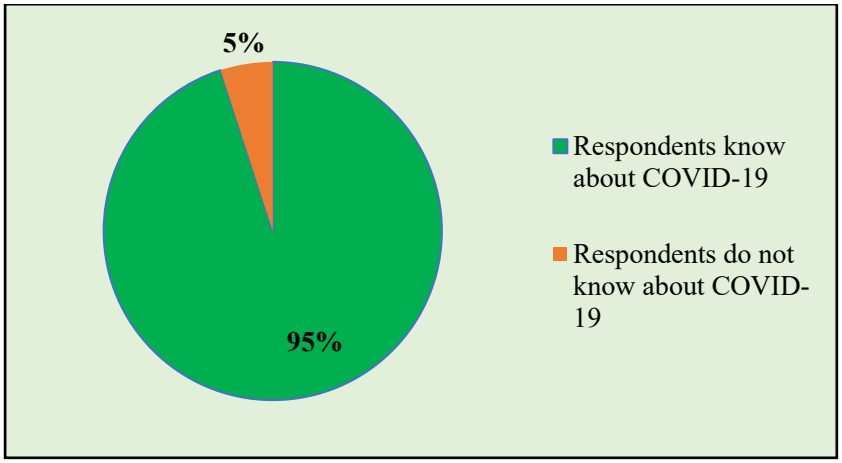
Bread	**27 per cent**	
Honey	**2 per cent**	

The table 20 shows pregnant women care by the households by taking health services and advice and taking nutritious foods taken for the pregnant women. The respondents mentioned that about 62 per cent and 58 per cent of the pregnant women take household-based health services and services from Govt. hospitals. About 30 per cent and 27 per cent of the pregnant women take health services and advice from community clinic and Kobiraj. Only 11 per cent of the households had capacity to provide take health services and advice from private clinic for their pregnant women. Some other take services and advice from local paramedic and NGOs.

It was found the households ensure different types of nutritious foods for the women during their pregnancy period. The respondents mentioned that about 79 per cent and 73 per cent of the households provide egg and vegetables & fish to the pregnant women. About 55 per cent , 54 per cent , 39 per cent and 34 per cent of the pregnant women take rice, milk, meat, and fruits. Besides, they also take potato, bread, and honey during their pregnancy period.

3.10 COVID-19

Figure 25: Respondent's knowledge about COVID-19



The figure 25 shows that about 95 per cent of the respondents had idea about COVID-19. They knew that COVID-19 had affected the country and whole world as a pandemic. On the other hand, it was found that about 5 per cent of the respondents had no idea in this regard.

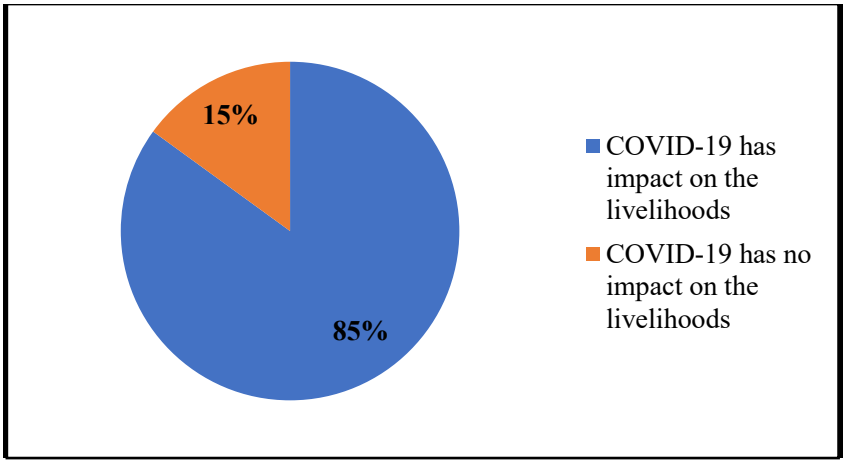
Table 21: Sources of having idea about COVID-19

Sources of having idea about COVID-19	*Response (per cent)*	
Miking	**64 per cent**	
Television	**60 per cent**	
From household members, friends, relatives, neighbours	**54 per cent**	
Mobile messages	**45 per cent**	
Local leaders	**18 per cent**	*Multiple responses*
Religious leaders	**13 per cent**	

Online platform (social media, Facebook, YouTube) Online News portal)	**11 per cent**	
From health professionals (doctors, health workers, NGO workers)	**8 per cent**	
Newspaper (printed)	**7 per cent**	
Radio	**7 per cent**	
Leaflet/poster/billboard	**4 per cent**	
Teachers/educational institutions	**3 per cent**	
BDRCS	**3 per cent**	

The table 21 shows the sources by which the respondents got idea about the COVID-19. About 64 per cent , 60 per cent , 54 per cent and 45 per cent of the respondents got idea from miking; television; household members, friends, relatives, neighbours, and mobile messages. Besides, the respondents got idea about COVID-19 from the other sources like local leaders, religious leaders, online platform (social media, Facebook, YouTube) Online News portal), health professionals (doctors, health workers, NGO workers), newspaper (printed), radio, leaflet/poster/billboard, and teachers/educational institutions. It was found that some of the respondents also got idea about COVID-19 from BDRCS's initiatives.

Figure 26: Impacts of COVID-19 on the livelihoods of the community people



The figure 26 shows that about 85 per cent of the respondents mentioned the COVID-19 kept impacts on the livelihoods of their households. COVID-19 had a significant impact on their lives and livelihoods. Because of the restrictions on their movement, they lost their sources of income. Some people lost their savings. Students dropped out because they were unable to attend classes. Child marriage increased in the community.

The COVID-19 had kept impacts on the life and livelihoods of the community people of the four communities as they had no work during the period. Besides, some of the households faced problems buying hand washing and hygienic equipment/products because of lack of money. During the COVID-19 period, lockdown/restriction was prevailing in the community area and district also. For this, the community people had faced a crisis of earning. They were forced to sell their domestic cattle at lower prices.COVID-19 had impacts on the overall health services in this area as the mass people did not get treatment of the other diseases like regular check-up of elder and sick persons and members of the households, cardiac diseases, check-up of pregnant women, caring of child etc. During the COVID-19 pandemic situation, it was seen that the middle-class people did not get any type of support because society thought that they can afford for their own needs. But practically, the middle-class people are the sufferers of any type of disaster, flood, and pandemic like COVID-19.

The production of animal's products has been reduced due to the COVID-19 pandemic. Though COVID-19 had no physical/health impacts on the cattle but animal production, distributions and sales like providing milk were reduced due to less mobility. Many households had to sell their domestic cattle at lower prices. Some were forced to sell their valuable resources like gold to tackle the crisis of COVID-19.

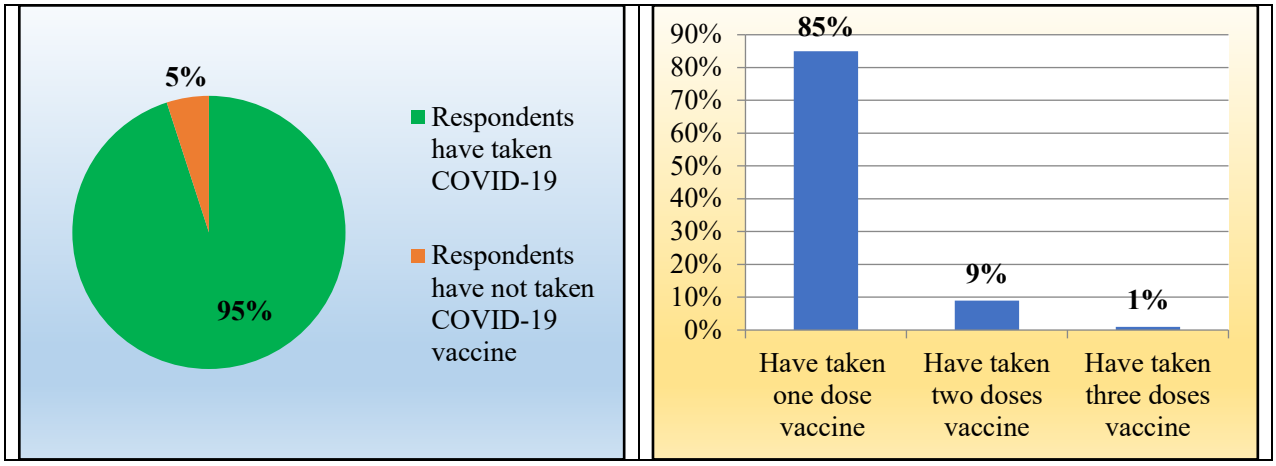
Table 22: Community people's practices to protect form COVID-19

Common people's practices to prevent COVID-19 risk	*Response (per cent)*	
Wearing a face mask when outside	**79 per cent**	*Multiple responses*
Hand washing with soap frequently	**59 per cent**	
Keep 1m/3ft/two hands distance with others	**23 per cent**	
Cleaning hands with sanitizer frequently	**18 per cent**	
Remain at home most of the time	**14 per cent**	
Avoiding people gathering places	**9 per cent**	
Sneeze in the inside of the elbow	**6 per cent**	

The table 22 shows that the community people practiced different types of habits to prevent COVID-19 risk. About 79 per cent and 59 per cent of the community people used to wear face mask when outside and wash hands with soap frequently to prevent COVID-19 risk. Some community people kept 1m/3ft/two hands distance with others, cleaned hands with sanitizer frequently and remained at home most of the time to avoid COVID-19 risk. Besides, some other avoided people gathering places and partied of sneezing in the inside of the elbow.

Government and non-government initiatives worked to make the community people to have these practices to avoid the COVID-19 risk. They worked for sensitizing the mass of people, distributed among the mass people and advised the community people to maintain social distance and practice hygienic behaviours to prevent COVID-19.

Figure 27: Vaccination status of the respondents

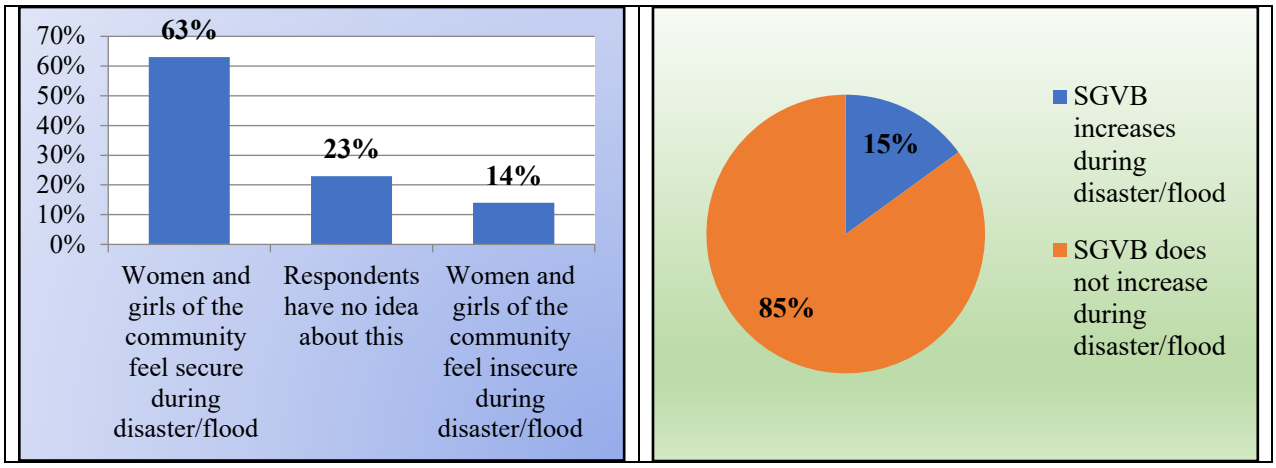


The figure 27 shows that 95 per cent of the respondents have taken COVID-19 vaccines. Among them 85 per cent of respondents have taken one dose and 9 per cent of the respondents have taken two doses of vaccines. Only 1 per cent got three doses or booster dose vaccine. The vaccine rates are dependent on availability.

Rest of the 5 per cent respondents who have not taken COVID-19 vaccines showed different types of reasons like fear of taking vaccine, getting no information about vaccine, difficulty in vaccine registration and physical sickness.

3.11 Sexual and Gender Based Violence (SGVB) at the Communities

Figure 28: Safety and security of women and girls and SGVB during disaster/flood period



The figure 28 describes the community situation of the safety and security of women and girls, and sexual and gender-based violence during disaster/flood period. About 14 per cent of the respondents mentioned that the women and girls of the community feel insecure during the disaster/flood period. On the other hand, about 15 per cent of the respondents think that sexual and gender-based violence increase during the disaster/flood period. Women and girls face most problems during the flood period. Because it is seen that most of the guardians (father and mother) never want to take their girls to the shelter centre because of the fear of social stigma. The same thing seems for the women of this community and Union. This culture must be changed because if any households have girls and women, they never want to leave their homes when a heavy flood hits and they stay in their own houses. This fastens the vulnerability of the households during the flood period. Besides, the community people have negative ideas whether the women and girls can stay at the shelter centres.

Table 23: Forms of SGVB during flood/disaster

Types of SBVG seen at the community as the results of disaster/flood	*Response (per cent)*	
Forced/Early Marriage	**55 per cent**	*Multiple responses*
Dowry	**46 per cent**	
Debt bondage	**12 per cent**	
Physical assault	**12 per cent**	
Abandonment/Neglect	**12 per cent**	
Sexual harassment (non-physical)	**8 per cent**	
Forced labor (agricultural, domestic labor, manufacturing etc.)	**8 per cent**	
Trafficking (inclduing sex trafficking)	**3 per cent**	
Denial of income, property, inheritance, or access to finances/earnings	**2 per cent**	
Sexual attack/assault	**2 per cent**	

The table 23 shows the different types of SGVB to women and girls that are seen as the result of disaster/flood. About 55 per cent and 46 per cent of the respondents mentioned that forced or early marriage and dowry are the results of flood. About 12 per cent of the respondents mentioned that debt bondage, physical assault and abandonment/neglect to women and girls are seen at their community due to flood. About 8 per cent of the respondents mentioned sexual harassment (non-physical) and forced labour (agricultural, domestic labour, manufacturing etc.) to women and girls happen as the result of disaster/flood at eh community. Besides, trafficking (including sex trafficking); denial of income, property, inheritance, or access to finances/earnings and sexual attack/assault are the also results of disaster/flood.

Table 24: Community people take measures to protect women and girls from SGVB resulted from disaster/flood

Community people take measures to protect women and girls from violence during the disaster/flood	*Response (per cent)*	
Restricting mobility (to markets, schools, workplaces, water/fuel collection)	**47 per cent**	*Multiple responses*
Early marriage	**42 per cent**	
Seek support from local government leaders	**33 per cent**	
Community-led safety patrols	**14 per cent**	
Report incidents to police	**10 per cent**	
Conduct family mediation	**5 per cent**	

The table 24 shows that the community people take different measures to protect women and girls from SGVB resulting from disaster/flood. About 47 per cent of the respondents mentioned that the households of the community restrict mobility of women and girls to different places like markets, schools, workplaces, water/fuel collection. About 42 per cent mentioned that the community people take as the option to early marriage of their girls. Besides, about 33 per cent mentioned that some of the community people seek support from local government leaders to protect women and girls from violence. Besides, the community people take some other measures like community-led safety patrols, report incidents to police and conduct family mediation as the measures to protect women and girls from sexual and gender-based violence during the flood and disaster period.

3.12 Community Engagement and Accountability (CEA)

Table 25: Community people's way to get information about the activities that are implemented in their areas

Community people's way to get information about different activities and projects that are implemented in their areas	*Response (per cent)*	
Community discussion meetings	**90 per cent**	*Multiple responses*
Community miking	**42 per cent**	
Survey/in small group discussion	**33 per cent**	
Help desk/information hub	**14 per cent**	
Information card/form	**3 per cent**	
Household discussion	**5 per cent**	
Through volunteer	**2 per cent**	
By mobile phone/SMS	**1 per cent**	

The table 25 shows community people's way to get information about if any types of activities and projects are implemented in their areas. About 90 per cent of respondents mentioned that the community people know about different activities from community discussion meetings. On the other hand, about 42 per cent , 33 per cent and 14 per cent of the respondents mentioned that the community people know about the information from community miking, survey/in small group discussion and help desk/information hub. Besides, the community people also know about the project implemented activities from information card/form, household discussion, volunteers, and by mobile phone/SMS.

Figure 29: Implementing project activity in consultation with and participation of the community people

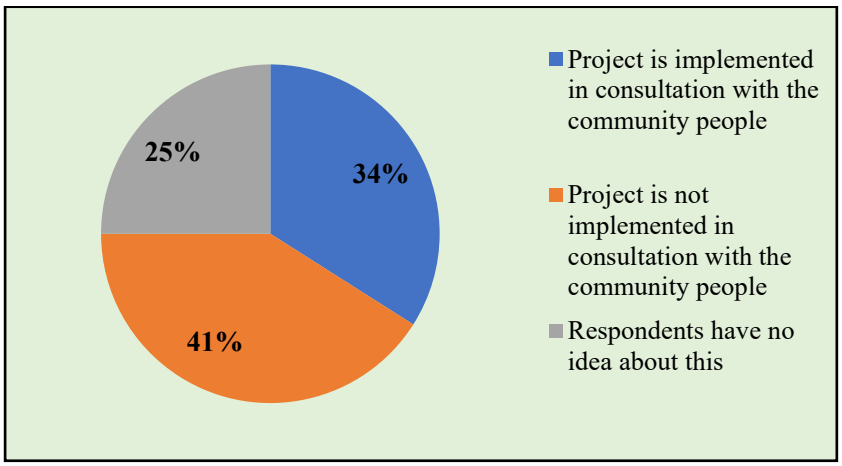


Figure 29 shows the status of the project implementation at the community by Government and non-government organizations in consultation with and participation of the community people and taking their decisions/opinions as well. About 34 per cent of the respondents mentioned that the officials/representatives of Government or non-government organizations implement any type of project in consultation with the community people. It was found that The Upazila Project Implementation Office of Tangail Sadar is now involved in doing a lot of development initiatives taken by the Government of Bangladesh. The Upazila Project Implementation Office is involved in activities infrastructure (roads) development and service delivery, governance improvement and capacity development, disaster management, TCB, Ashrayan Project, and some other many activities. On the other hand, about 41 per cent mentioned that no consultation is done with the community people in this connection. And 25 per cent mentioned that they had no idea in this regard.

Table 26: Activities are implemented in consultation with and participation of the community people

Activities are implemented in consultation with and participation of the community people	*Response (per cent)*	
Making a list of affected people	**32 per cent**	*Multiple responses*
Doing the survey	**18 per cent**	
Emergency relief distribution activities	**13 per cent**	
Cash and livelihood assistance activities	**9 per cent**	
COVID-19 awareness activities	**4 per cent**	
Safe water and hygiene activities	**3 per cent**	
House repairing and construction activities	**1 per cent**	

It was found that different types of activities are implemented in consultation with and participation of the community people. The table 26 shows that about 32 per cent and 18 per cent of the respondents

mentioned that consultation is usually done when making a list of affected people and doing the survey for the purpose of providing support to the community people. About 13 per cent mentioned that emergency relief distribution activities at the community level are completed by consulting with the community people. Besides, in a few cases like cash and livelihood assistance activities, COVID-19 awareness activities, providing safe water and hygiene activities and house repairing and construction activities consultations are done with the community people.

Table 27: Solving problems (issues/opinions/complaints) of the community people

Responsible persons and means to solve community problems	*Response (per cent)*	
Chairman and Members of the Union Parishad	**98 per cent**	*Multiple responses*
Community leaders	**46 per cent**	
Social meetings	**24 per cent**	
Through the officials and representatives of the Bangladesh Red Crescent Society	**11 per cent**	
With the help from the police	**5 per cent**	
By calling the Govt. hotline/mobile	**1 per cent**	

Table 27 shows different issues and complaints by responsible persons and means at the four communities. About 98 per cent of the problems are solved by the Union Parishad Chairman and Members. Besides, about 46 per cent and 24 per cent of the problems are solved by the community leaders and different social meetings, respectively. The respondents mentioned that some of the problems are solved by the officials and representatives of the Bangladesh Red Crescent Society. The community people also take help from the police and call to the hotline numbers of the Government to solve their problems.

3.13 Recommendations

Some recommendations were identified based on the findings of Baseline Study so that the programme team can take effective measures while implementing the activities for achieving the goals and outcomes of the programme. The recommendations should be addressed while implementing the programme, which will strengthen the resilience of the community. The accumulated recommendations are following:

- The knowledge of the community people should be increased on climate change adaptation, disaster risk reduction, community resilience, health, WASH, resilient shelter, sustainable livelihoods, and COVID-19 including vaccination through different types of activities under the programme.
- Four Community Disaster Management Committee (CDMC) and Community Disaster Response team (CDRT) at four communities and a Unit Disaster Response Team (UDRT) should be formed as per the design of the programme.
- Four Community-Based Flood Early Warning Systems (CBFEWS) should be established at four communities. The community people, CDMC, CDRT, UDRT, UDMC, Ward Disaster Management Committee (WDMC), local representatives, teachers, religious leaders, and representatives of district water development board should be involved in the formation of C-BFEWS.
- Sufficient flood response equipment including searches and rescue materials and boat should be provided to the community volunteers so that they can quickly respond before and during flood.
- Four Contingency Plans should be prepared for four communities and the responsible persons to be identified to make the contingency plans effective.

- Four Community Disaster Relief Emergency Fund (C-DREFs) should be formed for four communities so that the fund can be used during the sudden flood and disaster. The engagement of community people and beneficiaries should be ensured sustaining the fund for longer period.
- The youths of the four communities should be involved in BDRCS's programme and the students should be oriented towards disaster and flood management (coping techniques) so that they can disseminate these learnings to the guardian and household members.
- Vulnerable houses should be raised and prepared as stronger to withstand during the flood period and trainings should be provided to the community people to prepare and repair flood resilient houses. For this, Participatory Approach for Safe Shelter Awareness (PASSA) should be introduced among the community people.
- Some small-scale mitigation activities should be implemented at the four communities to minimize the risk of disaster and climate change.
- Supports and cash grants on animal-husbandry/poultry rearing, agriculture, tailoring, small business/retailing, small cottage, fisheries, information technology, technical and vocational should be provided to the selected beneficiaries if any type of livelihood supports are provided under the programme.
- Proper training and orientation should be provided to the beneficiaries while providing any type of support. The trainings and orientations must include disaster aspects.
- Safe drinking water for the community people should be ensured as the drinking water quality of the four communities is not good. The contaminated tube-wells with arsenic and iron should be identified by testing in support of DPHE and necessary actions should be taken accordingly.
- Context-specific sanitation technologies considering the flood water level should be provided to the selected beneficiaries to improve the sanitation condition of the four communities.
- BDRCS should motivate the community people to plant more trees for environmental protection and prevent climate change at the four communities and its surroundings areas. It will also contribute to the mitigation initiatives of BDRCS and IFRC.
- Special activities can be taken for the women of the four communities to improve their situation. Advocacy campaigns should be arranged at Union, and in Upazila and district level on equal preferences on women and men's employment.
- The religious leaders, teachers and other respected people of the four communities should be involved in programme implementation process.
- The community people should be introduced with the community engagement and accountability ideas.

3.14 Conclusion

The impact of climate change and disasters cannot be reduced in the absence of a resilient approach. If people of a community have proper orientation and capacity for resilient techniques, then it becomes easier for them to cope with the climate change vulnerability, and they can get back to their normal life after such disasters. Enhancing community resilience is also very important for ensuring sustainable livelihood of people for the future.

The IFRP: Phase Two is a very timely and essential programme to achieve the community resilience for the four communities of Tangail Sadar Upazila. Earlier, no programmes focusing on community resilience were implemented by any organization at the communities of the IFRP: Phase Two. Only some micro-credit programmes were initiated by some local/national NGOs. The lack of early warning system, fragile housing pattern, absence of sustainable livelihoods opportunities, limitations of community people's access to service providing organizations and conventional water and sanitation situation and insufficient health facilities etc. also demand community resilience programmes implementation at the four communities.

So BDRCS has very good chance to achieve success by implementing the programme. In this regard, a lot of advocacies and sensitization activities should be done at the targeted programme area to improve

the awareness level of the community people. As the programme is for only one year and it will be very tough to implement all the activities under the programme by this stipulated time frame as well as to achieve community resilience. So, the concerned management and IFRC should consider the extension of the programme to make the four communities resilient to flood and disaster.

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4.1 Annexes

Annex 01: Major Findings of the Baseline Survey as per Indicators of the Logical Frame

Outcome	*Output*	*Indicators*	*Baseline Survey Findings (Number and per cent)*
Outcome 01: Communities are capable to effectively	Output 1.1: Disasters and climate change risks are identified and	Indicator 1.1.1: Community vulnerability and capacity are identified, and community action plan developed	0
		Indicator 1.1.2:	0

respond to flood, COVID-19 pandemic and adapt to changing climate	appropriate community-centred preparedness and response plan along with early warning systems is formulated at 4 communities	Community Based Flood Early Warning System (C-FEWS) at communities established and well-functioning	
		Indicator 1.1.3: Contingency plans developed to facilitate disaster preparedness and respond to flood	0
		Indicator 1.1.4: Households contributed to Community-DREF	0
	Output 1.2: Community people have increased access to knowledge on DRR and COVID-19 disease protection and prevention	*Indicator 1.2.2: Awareness of community people and school students increased on DRR and CCA*	
		Indicator 1.2.2.1: Respondent's idea about climate change and DRR	21 per cent
		Indicator 1.2.2.2: Respondent's idea about flood resilience	29 per cent
		Indicator 1.2.2.3: Respondent's idea about flood early warning message	28 per cent
	Output 1.3: Disaster Management and volunteer groups are formed, trained and functional to mobilize in DRR, CCA, WASH, general and COVID-19 health services	*Indicator: 1.3.1: 08 no. of community disaster management & volunteer teams formed*	
		Indicator 1.3.1.1: Community Disaster Management Committee (CDMC)	0
		Indicator 1.3.1.2: Community Emergency Response Team (CDRT)	0
Outcome 02: Most vulnerable households have improved livelihood and shelter to withstand small scale flood	Output 2.1: Community people have diversified & sustained livelihood options	*Indicator 2.1.2: Beneficiaries and community people received proper advice and guidance for livelihood and agriculture improvement*	
		Indicator 2.1.2.1: Community people received skill development training to improve livelihood options in last three years	1 per cent
	Output 2.2: Targeted beneficiaries have received cash and skill development support to construct resilient shelter	Indicator 2.2.1: Staffs and volunteer received ToT on PASSA (participatory approach for safe shelter awareness) and developed technical design	0
		Indicator 2.2.1.1: Community people received shelter improvement or house preparing training	5 per cent
		Indicator 2.2.1.2: Houses are resilient to disaster and flood risk	34 per cent
Outcome 03:	Output 3.1: Targeted beneficiaries have	*Indicator 3.1.1: of beneficiaries got access to safe drinking water and community people have increased knowledge on safe drinking water*	

Community people have increased access to health and appropriate and sustainable water, sanitation and hygiene practice focused on COVID-19 hygiene promotion and hand washing issues.	access to safe water	Indicator 3.1.1.1: Households have tube-wells	76 per cent
		Indicator 3.1.1.2: Households have improved tube	29 per cent
		Indicator 3.1.1.3: Respondent's knowledge about improved drinking water sources	24 per cent
		Indicator 3.1.1.3: Households treat water before drinking during the flood period	21 per cent
	Output 3.2: Communities and schools have improved sanitation facilities, and practices improved hygiene behaviour that addressed COVID-19 health issues	*Indicator 3.2.1: Households with access to improved sanitation facilities*	
		Indicator 3.2.1.1: Households have own latrines	81 per cent
		Indicator 3.2.1.2: Households have improved latrines	22 per cent
		Indicator 3.2.1.3: Households have flood protected latrines	26 per cent
		Indicator 3.2.2: per cent of beneficiary are trained on hygiene behaviour and practices	
		Indicator 3.2.2.1: Respondents have idea about improved and hygienic latrine	25 per cent
		Indicator 3.2.2.2: Respondents and their household members use sandal during defecation	78 per cent
		Indictor 3.2.2.3: Respondents and their household members wash hands by using soap/mud after defecation	84 per cent
		Indictor 3.2.2.4: Respondents have idea about proper hand washing technique	27 per cent
		Indictor 3.2.2.5: Respondents have idea about menstrual hygiene management	78 per cent
		Indictor 3.2.2.6: Households cover food items properly and hygienic way	42 per cent
	Output 3.3: Communities have received treatment, health advice and knowledge that ensure the inclusion of Novel Corona Virus Disease	*Indicator 3.3.1: Community people have improved access to health and awareness to COVID-19*	
		Indicator 3.3.1.1: Respondents knowledge about COVID-19	95 per cent
		Households members suffered from diseases during the last flood	19 per cent
Outcome 04: BDRCS capacity to effective coordination and collaboration	Output 4.1: Staff & volunteer are trained and skilled in technical and management areas in Disaster Risk Reduction (DRR) and Novel	Indicator 4.1.1: Staff and volunteers received training on Disaster Risk Management (DRM)	0
		Indicator 4.1.1.1: Four communities have Contingency Plans	0
		Indicator 4.1.4: 04 CRMs established and functional	0

with other DRR actors to deliver scaled up DRR programme is enhanced	Coronavirus Disease Protection and Prevention		

Note: *Some sub-indicators have been included as per the data collection from Baseline Survey.*

Annex 02: Some Photos of the Baseline Survey

BDRCS PMER Official facilitated session at the training to the RCYs on data collection technique at the Tangail Red Crescent Unit (Photo: IFRC)

IFRC PMER Official conducted session on the household survey questionnaire and KoBo Toolbox (Photo: IFRC)

Official of BDRCS NHQ coordinated the fieldwork of Baseline Survey (Photo: BDRCS)

A total 20 RCYs collected household data from four communities (Photo Credit: BDRCS)

 *A RCY was collecting data from a female respondent (Photo Credit: BDRCS)*	 *A RCY was collecting data from a male respondent (Photo Credit: BDRCS)*

The Programme Officer of IFRP: Phase Two, Tangail Red Crescent conducted interview to improve the Baseline Survey Questionnaire (Photo: IFRC)

A field test was done to finalize the household survey questionnaire (Photo: BDRCS)

FGD was conducted with the women group of Andher Manik community of Katuli Union (Photo Credit: BDRCS)

FGD was conducted with the male student group of Isapasha community of Katuli Union (Photo Credit: BDRCS)

FGD was conducted with the male working group of Isapasha community of Katuli Union (Photo Credit: IFRC)

FGD was conducted with the female working group of Goyla Hossen community of Kakua Union (Photo Credit: IFRC)

KII was conducted with Upazila Agricultural Extension Officer of Tangail Sadar (Photo Credit: BDRCS)

The Social Service Officer of Tangail Sadar Upazila provided information as key informant (Photo Credit: IFRC)

 *The Upazila Livestock Officer of Tangail Sadar Upazila provided information as a key informant (Photo Credit: IFRC)*	 *Union Parishad Chairman of Katuli provided necessary information about his union and the two communities under IFRP: Phase Two (Photo: BDRCS)*

Annex 03: Household Survey Questionnaire

1. Name of Interviewer? ----------
2. Name of Supervisor? ----------
3. Date of interview: ----------
4. Time of interview: ----------
5. Name of Union?
    - Katuli
    - Kakua
6. Name of the community? (Choose one response)
    - Isapasha
    - Andhar Manik
    - Goyla Hossen
    - South Char Pouli
    - Andhar Manik
7. ID number of the household? ----------*the ID no. to be placed from the household list)*
8. Name of the household head? ----------
9. Name of the respondent? ----------
10. Age of the respondent? ----------
11. Gender of the respondent? (observation)- (Choose one response)
    - Male
    - Female
    - Other specify
12. Religion of respondent? (Choose one response)
    - Islam
    - Hinduism
    - Buddhism
    - Christianity
    - Others (please specify)
13. Educational qualification of respondent? (Choose one response)
    - Primary/ PSC
    - JSC
    - S.S.C
    - H.S.C
    - Graduation
    - Post-graduation
    - Above post-graduation

- Dakhil
- Alim
- Fazil
- Kamil
    - Have no formal education

14. Mobile no. of respondent or HH Head? (Choose one response)
    - Mobile no----------
    - N/A
15. Total Household member----------
16. Total Male----------
17. Total Female----------
18. Do you have any persons with disabilities in your HH? (Choose one response)
    - Yes
    - No
19. If yes, how many persons with disabilities in your HH? ----------
20. What type of the disability of the member of your households and the number? (Choose one response)
    - Autism
    - Physical disability
    - Mental disability
    - Vision/ Visual
    - Speech disability
    - Intellectual disability
    - Hearing disability
    - Hearing-vision
    - Cerebral palsy
    - Down Syndrome
    - Multi disability
    - NA
21. What is the main occupation (main income source) of your household head? (Choose one response)
    - Agriculture
    - Day laboring
    - Business
    - Govt. service
    - Non-govt. service
    - Rickshaw/van pulling
    - Auto pulling
    - Fishing
    - Carpenter/Mason
    - Handicraft
    - Tailoring
    - Teacher
    - Others (specify)
22. What is the secondary occupation (second income source) of your household head? (Choose one response)
    - Agriculture
    - Day laboring
    - Business
    - Govt. service
    - Non-govt. service
    - Rickshaw/van pulling

- Auto pulling
- Fishing
- Carpenter/Mason
- Handicraft
- Tailoring
- Teacher
- Others (specify)

23. Average monthly income (in taka) of your family----------
24. Average monthly expenditure (in taka) of your family----------
25. Do your household have any type of fixed asset? (Choose one response)
    - Yes
    - No
26. If yes, what types of assets do you have? (Choose all that apply)
    - Pond
    - TV
    - Radio
    - Mobile
    - Rickshaw
    - Van
    - Auto
    - Shop
    - Business capital
    - Gold/ Silver
    - Livestock (hen/duck/cow/goat/buffalo)
    - Others (please specify)
27. Does your household have any amount of land? (Choose one response)
    - Yes
    - No
28. If yes, how much is the amount of agricultural land (decimal)? ----------
29. If yes, how much is the amount of homestead land (decimal)? ----------
30. Have you or your household members have any idea/knowledge information about climate change/DRR? (Choose one response)
    - Yes
    - No
31. Have you or your household members have any idea/knowledge information about flood resilience? (Choose one response)
    - Yes
    - No
32. If yes, from where have you received the information? (Choose all that apply)
    - TV
    - Radio
    - Mobile
    - Newspaper
    - Meeting
    - Training
    - Mike
    - Union Parishad
    - Upazila/District Parishad
    - Teachers
    - NGOs
    - Signboard/billboard
    - Poster/leaflet

- Cultural programme
- Neighbor
- Others (please specify)

33. What are the disasters in your area that your HH have been affected from last 20 years? (Choose all that apply)
    - Flood
    - River erosion
    - Drought
    - Storm (Tornedo)
    - Cold wave
    - COVID-19
    - Thunderstorm
    - Excessive rain falls
    - Fire incident
    - Others (please specify)
34. How does flood affect the life and livelihood of your community? (Choose all that apply)
    - Destroy household and properties
    - Inundate houses and, roads, market places and other infrastructure
    - flood shelters
    - Destroy crops and agricultural lands
    - Spread diseases
    - Make people shelter less
    - Stop daily working opportunity
    - Destroy tube-well/water sources
    - Inundate latrines
    - Death of household members.
    - Others (please specify)
35. Does your household take any type of action before the flood?
    Choose one response:
    - Yes
    - No
36. If yes, what types of actions does your household usually take before the flood? (Choose all that apply)
    - Raise the household plinth
    - Preserve food and fuel
    - Save money
    - Take information about the flood shelter.
    - Raised the platform of tube-well and latrine
    - Inform community people to be prepared for flood
    - Prepare safe place for domestic animal.
    - Others (specify)
37. Does your household take any type of action during the flood? (Choose one response)
    - Yes
    - No
38. What types of actions does your household usually take during the flood? (Choose all that apply)
    - Shift properties and materials in safe places
    - Take shelter on roads or shelter centers or neighbor or relative house or rooftop
    - Advise others to shift and take safe shelter
    - Work together to reduce the loss of flood
    - Lending Money
    - Selling livestock

- Boil water before drinking
- Collect relief if provided
- Others (please specify)

39. Does your household take any type of action after the flood? (Choose one response)
    - Yes
    - No
40. If yes, what types of actions does your household usually take after the flood? (Choose all that apply)
    - Back to household
    - Communicate with UP representative and other service providing organizations
    - Collect relief and other support if provided
    - Repair damaged houses
    - Selling assets
    - Lending money
    - Others (please specify)
41. Do you have any knowledge on understanding of the flood early warning message? (Choose one response)
    - Yes
    - No
42. Have you ever received any flood early warning message? (Choose one response)
    - Yes
    - No
43. If yes, from where have you received the flood early warning message? (Choose all that apply)
    - TV
    - Radio
    - Mobile
    - Newspaper
    - Meeting
    - Training
    - Mike
    - Union Parishad
    - Upazila/District Parishad
    - Teachers
    - NGOs
    - Signboard/billboard
    - Poster/leaflet
    - Cultural programme
    - Neighbor
    - Community volunteer
    - Others (please specify)
44. Was your livelihood hampered during last flood? (Choose one response)
    - Yes
    - No
45. If yes, how did flood hamper your livelihood during last flood? (Choose all that apply)
    - Destroy property
    - Crop loss
    - No occupational works
    - Movement restricted due to flood water
    - Reduce income for a certain time
    - Loss of domestic animals
    - Loss of fruits and trees
    - Destruction of business materials

- Loss of fisheries
- Others (please specify)

46. How did you cope with the situation and loss? (Choose all that apply)
    - Temporary/permanent migration to other places for working purpose
    - Use savings
    - Reduce daily cost
    - Get financial support from govt. and non-govt. agencies
    - Borrow from other
    - Taking loans (NGO/others)
    - Forced selling (livestock, boat, gold, lands)
    - Send children for working to other places (cities/towns)
    - Received gifts from in law's house
    - Go through starvation
    - Others (please specify)
47. Have you/your household members received any skill development training to improve livelihood/income generating option in last 03 years? (Choose one response)
    - Yes
    - No
48. If yes, what types of training you/your household members have received in last 03 years? (Choose all that apply)
    - Training on agriculture
    - Training on animal-husbandry/poultry rearing
    - Training on small business/retailing
    - Training on tailoring
    - Training on small cottage
    - Training on fisheries
    - IT training
    - Technical and vocational training
    - Training on masonry/carpentry
    - Others (please specify)
49. If yes, from where have you/your household members received the training? (Choose all that apply)
    - Local/private training center
    - Upazila Govt. office
    - District Govt. office
    - Union Parishad
    - From NGOs
    - BDRCS
    - Others (please specify)
50. If yes, how did you know about the training? (Choose one response)
    - Union Parishad
    - Local representative
    - NGOs
    - Neighbors
    - Govt. offices/training center
    - Relatives
    - Others (please specify)
51. Did the training include disaster risk orientation/aspects to improve livelihoods? (Choose one response)
    - Yes
    - No
52. Was the training helpful for you to improve your income/livelihoods? (Choose one response)

- Yes
- No

53. What types of training would be helpful for you/your household members to improve your livelihoods/enhance income? (Choose all that apply)
    - Training on agriculture
    - Training on animal-husbandry/poultry rearing
    - Training on small business/retailing
    - Training on tailoring
    - Training on small cottage
    - Training on fisheries
    - IT training
    - Technical and vocational training
    - Training on masonry/carpentry
    - Others (please specify)
54. In which types of houses do you reside (observation)? (Choose one response)
    - Pucca
    - Semi-pucca
    - Kaccha
    - Others (please specify)
55. Do you consider your house as resilient to disaster/flood risk? (Observation) (Choose one response)
    - Yes
    - No
56. Is there any community practice to prepare or renovate houses in your area considering flood risks through community consultation? (Choose one response)
    - Yes
    - No
57. If yes, what types of measures do the community people take while preparing or renovating the houses? (Choose all that apply)
    - Do meeting with the community people
    - Take advice from the local expert
    - Help each other to prepare or renovate house
    - Take advice from private or public organizations
    - Arrange open discussion with the community people
    - Others (please specify)
58. Have you/your household members ever received any shelter improvement/house making training? (Choose one response)
    - Yes
    - No
59. What is the major source of drinking water that your household members are using? (Choose one response)
    - Tube-well
    - Pond
    - River
    - Canal
    - Rainwater
    - Pipe water
    - Bottled water
    - Supply water
    - Others (please specify)
60. Does your household have any tube-well? (Choose one response)
    - Yes

- No

61. If yes, is the tube-well improved (with platform, useable during flood)? (Choose one response) (Observation)
    - Yes
    - No
62. If not, what sources of water do you/your household members use for drinking? (Choose all that apply)
    - Neighbor's tube-well
    - Tube-well in community
    - Institution's water source (school, college, mosque)
    - River water directly
    - River water purified with tablet
    - Rain water
    - Bottled water
    - Supply water
    - Others (please specify)
63. Who mainly usually collects water for drinking in your household? (Choose all that apply)
    - Male
    - Female
    - Children
    - Elderly people
    - Others (please specify)
64. How far do you/your household members have to go to collect water? (Choose all that apply)
    - Less than 1640 feet/half kilometers
    - More than half kilometers and less than one kilometer
    - Above one kilometer
65. Do your household treat water before drinking during flood? (Choose one response)
    - Yes
    - No
66. What sources of water do your household members use for drinking purposes during flood? (Choose all that apply)
    - Well-functioning Tube-well
    - Inundated tube-well
    - Pond
    - River
    - River water directly
    - River water purified with tablet
    - Bottled water
    - Pipe water
    - Others (specify)
67. What sources of water do your household members use for domestic purposes during flood (cooking, bathing, washing, cattle nurturing etc.)? (Choose all that apply)
    - Tube-well
    - Pond
    - River
    - Rainwater
    - Pipe water
    - Others (please specify)
68. Do you have knowledge about safe/improved drinking water sources? (Choose one response)
    - Yes
    - No
69. Does your household have a latrine? (Choose one response)

- Yes
- No

70. If yes, what is the type of your latrine? (observation) (Choose one response)
    - Pucca
    - Semi-pucca
    - Kaccha
    - Hanging
71. How far your household latrine is located from your living room? ---------feet
72. How far your household latrine is located from your drinking water source? ------feet
73. If yes, is the latrine improved? (Choose one response) (observation)
    - Yes
    - No
74. Is your latrine protected from flood? (Choose one response)
    - Yes
    - No
75. If your household does not have any latrine, where do you/household members defecate? (Choose all that apply)
    - Open defecation
    - Shared latrine
    - Neighbor's latrine
    - Others (please specify)
76. Do you have idea about improved and hygienic latrine? (Choose one response)
    - Yes
    - No
77. Do you/your household members use sandal during defecation? (Choose one response)
    - Yes
    - No
78. Do you/your household members wash hands by using soap/mud after defecation? (Choose one response)
    - Yes
    - No
79. How do you/your household members defecate during the flood? (Choose all that apply)
    - Use latrine
    - Defecate openly
    - Use the latrine of shelter center
    - Defecate in flood water
    - Others (please specify)
80. Do you know proper hand washing technique? (Choose one response)
    - Yes
    - No
81. If yes, at least how long it should take for hand washing? ----------seconds
82. When do you/household members wash hands with soap in the following times? (Choose all apply:
    - After defecation
    - Before eating
    - Before cooking
    - Before preparing foods
    - Before serving foods
    - Before feeding babies
    - After cleaning baby's bottom
    - After coming from outside of the home

83. Is the food/drinking water is properly covered in your household? (observation) (Choose all that apply)
    - Yes
    - No
84. Do you have any idea about hygiene management during menstrual period? (Choose one response)
    - Yes
    - No
85. Where do you/your household members mostly go for taking treatment? (Choose all that apply)
    - Community clinic
    - pharmacy
    - Private clinic
    - Local paramedic
    - Village doctor
    - Upazila/Sadar private clinic
    - GoB hospital (Upazila/district)
    - Kobiraj
    - Tele-medicine/mobile
    - Do not take treatment/have no capability
86. Have any of your household members suffered from any diseases during last flood? (Choose one response)
    - Yes
    - No
87. If yes, from what types of diseases the household members suffer during last flood? (Choose all that apply)
    - Cholera
    - Diarrhea
    - Dysentery
    - Hepatitis
    - Scabies
    - Cold influenza
    - Fever
    - Abdominal pain
    - Urinary problem and itching
    - Blood pressure
    - Others (please specify)
88. How many of the household members have suffered from those diseases? ----------
89. Which services do you/your household members take for pregnant care? (Choose all that apply)
    - Household based services
    - Community clinic services
    - Local paramedic
    - Kobiraj
    - Private clinic
    - MCH
    - Govt. hospitals
    - NGO services
    - Others (please specify)
90. What types of nutritious foods usually are taken by the pregnant women of your households? (Choose all that apply)
    - Egg
    - Fish
    - Meat

- Milk
- Fruits
- Vegetables
- Honey
- Rice
- Bread
- Potato
- Others (please specify)

91. Do you know about Coronavirus/COVID-19? (Choose one response)
    - Yes
    - No
92. If yes, from where have you heard/known about Coronavirus/COVID-19? (Choose all that apply)
    - Radio
    - Newspaper (printed)
    - Online platform (social media-Facebook, YouTube) Online News portal)
    - From health professionals (doctors, health workers, NGO workers)
    - From household members, friends, relatives, neighbors
    - Miking
    - BDRCS
    - Mobile messages
    - Religious leaders
    - Local leaders
    - Teachers/educational institutions
    - Leaflet/poster/billboard
    - Others (please specify)
93. Have you/your household received any information on how to deal with COVID-19 risk? (Choose one response)
    - Yes
    - No
94. If yes, where from you get this information? (Choose all that apply)
    - Television
    - Radio
    - Newspaper (printed)
    - Online platform (social media-Facebook, YouTube, Online News portal)
    - From health professionals (doctors, health workers, NGO workers)
    - From household members, friends, relatives, neighbors
    - Miking
    - Mobile messages
    - Religious leaders
    - Local leaders
    - Teachers/educational institutions
    - Leaflet/poster/billboard
    - Others (please specify)
95. What do you practice being safe from COVID-19? (Choose all that apply)
    - Handwashing with soap frequently
    - Cleaning hands with sanitizer frequently
    - Wearing a face mask when outside
    - Keep 1m/3ft/two hands] distance with others
    - Sneeze/cough in the inside of the elbow
    - Avoiding where many people congregate/crowds
    - Remain at home most of the time
    - Others (please specify)

- Do not have any practices

96. Has COVID-19 made any effect to your/your household income? (Choose one response)
    - Yes
    - No
97. Have you taken a vaccine for coronavirus? (Choose one response)
    - Yes
    - No
98. How many doses of coronavirus vaccine have you taken? (Choose one response)
    - One
    - Two
    - Three
99. If not, why have you not taken coronavirus vaccine? (Choose all that apply)
    - Did not get proper information about vaccination
    - Vaccine is not available
    - I had difficulty in vaccine registration
    - I do not believe vaccine could save me
    - I fear side effects of vaccine
    - I have registered but not receive SMS yet
    - Other (please specify)
100. How many of your household members were affected from COVID-19? -------
101. If affected, how many of them died? ----------
102. Is the safety and security of women and girls an issue because of the disaster? (Choose one response)
    - Yes
    - Know
    - Do not know
103. Have you heard of children missing from the area since the disaster? (Choose one response)
    - Yes
    - No
104. Do you know of children being sent away for any of the following reasons since the disaster? (Choose all that apply)
    - No reports of children set away
    - Safety
    - Medical reasons
    - Education
    - Work
    - To get married
    - Other (please specify)
105. Do you know of any increased violence towards women, men, girls/boys since the disaster? (Choose one response)
    - Yes
    - No
    - Do not know
106. If yes, which forms of violence and risks are women and children facing due to flood and other the disaster? (Choose all that apply)
    - Forced/Early Marriage
    - Dowry
    - Physical Assault
    - Trafficking (incl. sex trafficking)
    - Forced Labor (agricultural, domestic labor, manufacturing, prostitution)
    - Debt bondage

- Sexual Harassment (non-physical)
- Abandonment/Neglect
- Denial of income, property, inheritance, or access to finances/earnings
- Sexual Attack/Assault
- Rape
- Others (please specify)

107. What does the community do to protect women and girls from violence since the disaster? (Choose all that apply)
- Restricting mobility (to markets, schools, workplaces, water/fuel collection)
- Report incidents to police
- Seek support from local government leaders
- Early Marriage
- Community-led Safety Patrols
- Accompanied/chaperoned movement
- Conduct family mediation
- Other (please specify)

108. From what type of communication media do you get/collect information about the types of activities that are implemented in the community? (Choose all that apply)
- Community Discussion Meetings
- Survey/ in small group discussion
- help desk/Information hub
- Information card/form
- Community Miking
- Posters (in markets/public places)/ from leaflets
- Through mobile phone/SMS through
- Volunteer
- Other (please specify)

109. When a project activity is started in the community, is the action implemented with the participation of the community people and their decisions/opinions? (Choose all that apply)
- Yes
- Know
- Do not know

110. If yes, then what kind of activities in your area are implemented with community discussions/opinions? (Choose all that apply)
- Making a list of affected/ endangered people
- During the survey
- Emergency relief distribution activities
- Cash/livelihood assistance activities
- Cash/livelihood assistance activities
- Safe water and hygiene activities
- Health-friendly latrine activities
- House repair/construction activities
- COVID-19 awareness activities
- Other (please specify)

111. If there are any issues/opinions/complaints in the community, who is responsible for resolving them? (Choose all that apply)
- Chairman/Member of the Village
- Community leaders
- Social meetings/meetings
- With the help of the police.
- With the help of Secretary/ELO of the Red Crescent Unit Office
- Through the staff/representative of the Red Crescent

- With the help of a Red Crescent volunteer
- Through community-based committees
- By calling the hotline/mobile
- Other (please specify)

112. May I take a photo of you? ----------

Annex 04: Checklist of Focus Group Discussion (FGD)

Type of participants	
Name of the community	
Union	
Upazila	Tangail Sadar Upazila
District	Tangail
Date and time	
Place of FGD	

Outcome of IFRP: Phase Two	Questions
Outcome 01: Communities are capable of effectively responding to flood, COVID-19 pandemic and adapt to changing climate	• What are the main occupations of the people of your community? • What are the major natural resources of your community? • What is the education status of your community? • Did you observe any change in weather or climate in your community and surroundings in the last 15 to 30 years? If yes, what is your observation? • What are the impacts of flood and other disasters on the socio-economic condition in your community? • Do you have any idea about climate change and community resilience? • How do the community people manage the flood challenges and other disaster risks by their own initiative? • Do you have any idea about "Community Based Flood Early Warning System"? If yes, how the flood early warning system can be established and how the system can help to reduce the flood loss at your community? • What are the impacts of COVID-19 on socio-economic and livelihoods of the community people? • Are the community people aware to prevent and take vaccines of COVID-19 at your community? If not, please describe the reasons.
Outcome 02: Most vulnerable households have improved livelihood and shelter to withstand small scale floods	• Which types of livelihoods are practiced by you/community people? • What are the impacts of flood on livelihoods of the community people? • What types of dimensions are necessary for the development of livelihoods for your community people? • Do your community members have any type of common shelter practices? If yes, please describe. • How can the community people increase their knowledge and capacity to renovate houses considering the flood challenges?

Outcome 03: Community people have increased access to appropriate and sustainable water, sanitation and hygiene practice focused on COVID-19 hygiene promotion and hand washing issues	• Do the community people have proper access to safe water and hygienic sanitation? • How does the flood keep impact on water and sanitation technologies/sources in your community? • What types of initiatives should be undertaken to overcome the WASH challenges of your community people? • Do the community people have practices of hand washing for preventing the COVID-19? If there any organizations are working to make the community people sensitized on WASH and COVID-19 prevention at your community? • What is the health status of your community? • How do the community people take health facilities in your area during normal periods and flood times? • What should be done to improve the health facilities in your community?
Outcome 04: BDRCS capacity to effective coordination and collaboration with other DRR actors to deliver scaled up DRR programme is enhanced	• How the activities of BDRCS/Integrated Flood Resilience Programme: Two can be sustainable in future and contribute to the community people? • What types of specific trainings should be provided to the community people and community volunteers so that they can contribute implement BDRCS programme/IFRP: Phase Two? • Have any organizations (govt. & non-govt.) have undertaken any programme to increase the resilience capacities of the community people in your area? If yes, please describe. • Do you have any types of recommendations for increasing the community resilience and adaptation capacity to climate change of community people in your area?

List of Participants

Sl. no	*Name of the participant*	*Age*	*Gender*	*Occupation*	*Contact no (mobile)*	*Signature*
01						
02						
03						
04						
05						
06						
07						
08						
09						
10						

Annex 05: Checklist of Key Informant Interview (KII)

Type of the informant	
Name of the informant	
Age	
Profession	
Name of the community	
Union	
Upazila	Tangail Sadar Upazila
District	Tangail
Contact no. (mobile)	
Time and date	
Place of KII	

- Please describe the changes in weather and climate that you have observed in your community/surroundings area in the last few years?
- How does flood and COVID-19 affect your socio-economic life and livelihoods in recent years?
- What are the impacts of flood on shelter, infrastructure, livelihoods, WASH, and health in your community?
- Do the community people of this area have their own mechanism/system to face the impacts of flood and other disasters? If yes, please describe this. If not, please mention how these types of mechanisms/systems can be developed to reduce disaster and flood loss?
- What are the current barriers to cope with the flood challenges in your community? How can the barriers be removed to cope with the flood situation in your community?

- How the institutions like Union Parishad, schools, Govt. service providing organizations (Upazila and district), social network and other organizations can contribute to reduce the flood impacts and other disasters?
- What special measures can be taken to reduce the vulnerability of women, children, and elderly people in your area?
- Have any types of resilience actions and adaptation programmes been undertaken by any organizations (govt. & non-govt.) to reduce the impacts of flooding in your community?
- Is the Union Disaster Management Committee (UDMC) functional in your UP? If yes, what types of actions do they take to reduce the impacts of floods and other disasters?
- Do you suggest some recommendations to overcome the flood challenges and achieve the resilience capacity of your community?
- What are your suggestions to make "the activities of BDRCS/Integrated Flood Resilience Programme: Two" sustainable and effective for the community people?

Note: After the completion of interview photo of the informant was taken following the Consent Form of BDRCS.