

PRE-CRISIS ASSESSMENT OF MONSOON FLOODING IN BANGLADESH

Humanitarian Coordination Task Team (HCTT)



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HUMANITARIAN COORDINATION TASK TEAM (HCTT)

In collaboration with
UN Resident Coordinator Office (UN RCO)
International Federation of Red Cross and Red Crescent Societies (IFRC)
Start Fund Bangladesh (SFB)
Asia-Pacific Regional Cash Working Group (RCWG)

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This paper was co-authored by Kazi Shahidur Rahman (Office of the UN Resident Coordinator, Bangladesh) and Vlad Sorin Cozma (NORCAP/CashCap, Coordinator of the Asia-Pacific Regional Cash Working Group).

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- Rumana Khan (GBV Cluster Coordinator, UNFPA),
- Mohammad Rony (FSC Coordinator, FAO & WFP),
- Saleha Khatun (WASH Cluster Coordinator, UNICEF)
- Zahirul Alam (Shelter Cluster Coordinator, IFRC),
- Syed Shabab Shahrear (DMC Coordinator, IOM),
- Sajid Raihan (Country Manager- Start Fund Bangladesh),
- Shofiul Alam (Program Coordinator- Start Fund Bangladesh),
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FOREWORD



Gwyn Lewis
United Nations
Resident Coordinator
United Nations in
Bangladesh



Kamrul Hasan, ndc
Ministry of Disaster
Management and Relief,
Government of the
People's Re

Each year, Bangladesh faces the recurring threat of monsoon flooding, exacerbated by the impact of climate change. The country's geographical location and deltaic characteristics make it highly vulnerable to devastating monsoon floods, disrupting development and plunging a significant portion of the population into a precarious cycle of vulnerability and poverty.

As Co-Chair of the Humanitarian Coordination Task Team (HCTT), in collaboration with the Asia-Pacific Regional Cash Working Group (RCWG), Start Fund Bangladesh (SCB), and Red Cross Red Crescent (RCRC) Movement, we undertook the pre-crisis analysis to assess people's perceptions and programmatic aspects related to monsoon flooding. The primary objective of this analysis was to gather insights and support to develop an anticipatory action and response Cash+ package. By aligning disaster risk reduction and response efforts with the priorities and preferences of the affected population, we aim to enhance the effectiveness and responsiveness of our actions.

This report represents a critical shift in our approach, moving from a reactive to an anticipatory action strategy, guided by advanced forecasting technologies and methodologies. We strongly believe that early warning systems, common alerting protocol with clear communication channels and actionable messages, can provide people with the necessary lead time to better prepare and respond to climate-related events. Beyond addressing immediate needs, we also considered the long-term concerns of these people, striving to reinforce their resilience against recurring monsoon floods and guide their transition into a sustainable and secure future.

This report serves as a resounding call to action for humanitarian actors, national and international organisations, local communities, and the global community to recognise the power of anticipatory action and mobilise resources effectively. As we disseminate these findings, we eagerly anticipate witnessing this knowledge translate into tangible, proactive measures that enhance the resilience of Bangladesh. While the challenge before us is significant, through pooling our resources, commitment, and collective expertise, we can make a substantial difference.

By embracing anticipatory action and empowering communities with knowledge and resources, we can work together to build a safer, more secure future for the people of Bangladesh. Let us join forces to ensure that our actions align with the needs and aspirations of those affected, ultimately creating a pathway to resilience and sustainable development.

FOREWORD



Sanjeev Kumar Kafley
Head of Country Delegation
International Federation of Red Cross
and Red Crescent Societies (IFRC),
Bangladesh

It is with great anticipation and a pleasure to present this pre-crisis assessment report on monsoon flooding in Bangladesh. This report provides a comprehensive understanding of the perceptions and programmatic aspects related to monsoon flooding. The insights will be instrumental in formulating an anticipatory action and response Cash+ package, tailored to the priorities and preferences of the affected communities.

Bangladesh is one of the most vulnerable countries to the impact of climate change. At the same time, the country has made significant contributions to addressing the difficulties posed by climate change through the adoption of legislation, policies, and the fulfilment of international commitments.

The IFRC plays a critical role in contributing to global climate action together with its membership across the globe. Bangladesh Red Crescent Society (BDRCS) is an active member of the IFRC network and an auxiliary to the government in the provision of humanitarian assistance to prevent and reduce human suffering. The country-wide network of BDRCS, puts them in a unique position, beyond delivering humanitarian services, playing a vital role in improving community resilience and advocating on behalf of vulnerable people. Our Global Climate Centre helps the Red Cross Red Crescent (RCRC) Movement and its partners to reduce the impacts of climate change and extreme weather events on vulnerable communities. Our RCRC Movement's climate and environment charter for humanitarian organisations aims to urgently steer and galvanise a collective humanitarian response to the climate and environmental crises.

Combating floods and other climate crises and their effects takes bold thinking and even more ambitious action. We, the humanitarian community and partners including government agencies, people at risk, donors, corporate sectors, media and others must come together, and work closely with the affected community to scale up community-centre climate action spanning resilience building, preparedness and anticipatory action, humanitarian response and ensure support for locally sustainable solutions.

I extend my deepest gratitude to the dedicated teams, volunteers, and partners who contributed to this assessment. The IFRC together with BDRCS is honoured to be part of this. We at the IFRC and BDRCS, eagerly look forward to working together to systematically reach the "last mile" communities across multiple contexts who are affected by climate risks.

FOREWORD



Sajid Raihan,
Country Manager
Start Fund
Bangladesh

I am delighted to present as the Country Manager of Start Fund Bangladesh to you this pre-crisis assessment report on monsoon flooding in Bangladesh. Start Fund strives to foster risk financing and build resilience by enhancing the capacity of local and national actors in a collaborative approach to face climatic shocks and stresses. This assessment holds great significance in shaping our collective response to the recurrent threat of monsoon flooding in Bangladesh. The findings of this assessment shed light on the perceptions and programmatic aspects related to monsoon flooding, enabling us to make informed and proactive joint efforts to address the needs of the affected communities.

Our commitment to ensuring the well-being of vulnerable populations and working with them toward a secure and sustainable future is at the core of our mission. This pre-crisis analysis allows us to develop an anticipatory action plan and a response strategy that is grounded in the priorities and preferences of the affected communities.

As the Country Manager of Start Fund Bangladesh who is a member of the Humanitarian Advisory Group (HAG) and Humanitarian Coordination Task Team (HCTT), I extend my heartfelt gratitude to our dedicated team and esteemed partners who have worked tirelessly to carry out this assessment. Your unwavering commitment and expertise have contributed immensely to the value and credibility of this report.

In light of the challenges posed by climate change, this report serves as a call to action for all stakeholders, including humanitarian organisations, governmental bodies, and the global community. Together, we must design comprehensive risk financing strategies, and implement anticipatory and early action measures that safeguard lives and secure the future of vulnerable communities.

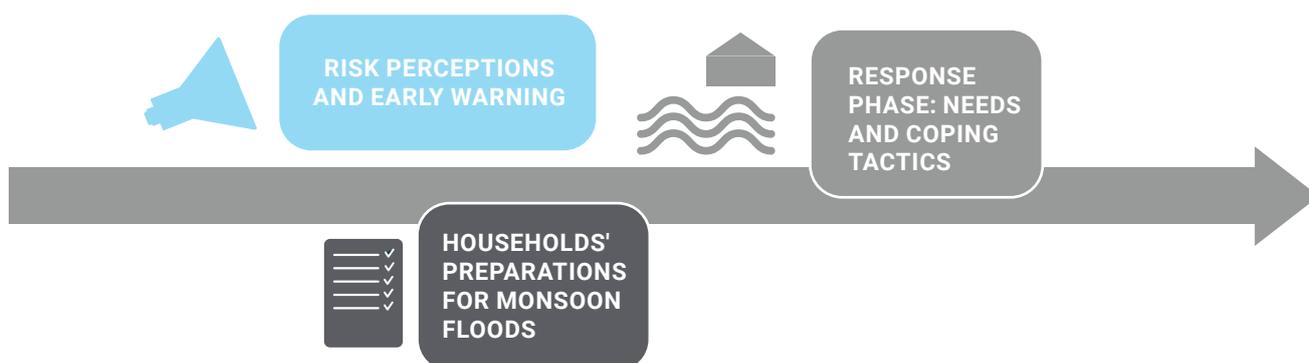
I am confident that the knowledge and insights gathered through this assessment will serve as a compass to guide our collective efforts in creating a safer, more resilient Bangladesh. Let us stand united in our mission to protect and empower those people affected by monsoon flooding, leaving no one behind in our journey toward a sustainable and prosperous future.

EXECUTIVE SUMMARY

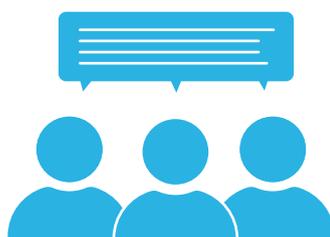
This Pre-Crisis Assessment of Monsoon Flooding in Bangladesh presents the collective accountability to the affected population in Bangladesh of the Humanitarian Coordination Task Team (HCTT) members to improve their coordinated action in anticipatory action and response based on the people's preferences and choices.

CONSULTING PEOPLE AT RISK BEFORE THE CRISIS

The pre-crisis assessment highlights the importance of a comprehensive approach to flood resilience in Bangladesh. Strengthening early warning systems, enhancing community engagement, and investing in sustainable infrastructure and livelihood diversification will empower at-risk peoples to withstand and recover from monsoon floods more effectively. By implementing the survey's recommendations, anticipatory action and response efforts can be more targeted, responsive, and inclusive, leading to improved outcomes for vulnerable communities and their well-being during flood events. This has provided valuable insights into the risk perception, preparedness, and coping capacity of at-risk households. The findings underscore the resilience of communities in flood-prone areas and highlight the importance of early warning systems, community engagement, and strategic interventions to enhance flood management and resilience.



HOUSEHOLDS' INFORMATION NEEDS AND COMMUNITY ENGAGEMENT



STRUCTURE OF THE FINDINGS

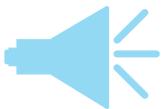
The report findings are grouped into four categories organised in the same sequences as a flood timeline. The aim of this approach is to identify how people's perceptions of risks and access to early warning information influence what they do before the flood, how these preparations reduce the impact of the flood and their subsequent needs, and what the information needs of people at all stages of this continuum.



Introduction: The monsoon season in Bangladesh, lasting from June to September, is essential for the country's agriculture and economy due to heavy rainfall and water replenishment. However, it also brings challenges, impacting livelihoods, crops, and livestock. Excessive rainfall and flooding damage crops, while floodwaters pose a threat to livestock and animal shelters. Some choose temporary relocation, while others stay behind to protect animals during the floods. The approach of disaster risk management in Bangladesh includes preparedness, anticipatory action, response, and recovery. It is a collaborative effort involving government agencies, National and Local Agencies (L/NAs), international non-government organisations, and UN Agencies through HCTT and national cluster efforts. The HCTT Nexus Strategy 2021-25 for climate-related disasters aligns with the National Plan for Disaster Management (NPDM) and focuses on transformative changes, including early warning systems, anticipatory action, durable solutions for displaced populations, and nature-based solutions in response and risk reduction. Preparedness and anticipatory action are seen as interconnected approaches promoting collaboration with humanitarian and development actors.



Pre-Crisis Survey Approach: The pre-crisis survey approach aims to improve system-wide coherence in support of coordinated efforts for saving vulnerable populations during monsoon floods in Bangladesh. The survey's objectives include understanding community perceptions, needs, and coping capacities, and providing recommendations for a unified inter-sectoral Cash+ approach for anticipatory actions and post-flood response interventions. The analysis combines quantitative data with qualitative insights from focus group discussions and key informant interviews. The report acknowledges limitations in geographical coverage, sample representativeness, potential response biases, and limited qualitative data sources. Nonetheless, the collaborative and people-centred approach ensures credibility and robustness in the study's outcomes, facilitating an integrated approach to disaster preparedness, anticipation, and response for at-risk communities.



Risk Perception and Early Warning: Bangladesh's susceptibility to monsoon floods is intensified by its geographical placement, and this study sought to delve into communities' perceptions of this recurrent threat, focusing on the vulnerability. The survey revealed that the implications of monsoon floods spanned three dimensions: damage to property and infrastructure, disruption of life and livelihoods, and distress to the people. Despite over half of the population expressing their vulnerability, there's an evident resilience borne from familiarity with monsoon floods. However, this same familiarity can often blur the lines,

making negative coping mechanisms seem 'normal'. The early warning system, albeit existent, isn't sufficiently timely or comprehensive, leading to limited preparation time. Finally, the trust factor determines how these warnings are managed. The community's indigenous knowledge sometimes complements, and at times supersedes, official early warnings. This indicates an avenue to intertwine local wisdom with modern forecasting, culminating in a more robust, trusted early warning system. The overarching takeaway is the urgent need for a cohesive, multi-faceted, and community-inclusive approach to anticipate and combat the re of monsoon floods in Bangladesh.



Households' Preparation for Monsoon Floods: Monsoon floods regularly affect Bangladesh, necessitating households to be resilient and prepared. Approximately 75% of households have adopted flood mitigation measures, such as raising home bases, stockpiling dry foods, and constructing banana rafts. However, a significant percentage still lacks awareness about these measures. When evacuating, households prioritise taking dry food, essential documents, and bedding, among other items. Yet, many don't have detailed household contingency plans. Spending is primarily focused on food, shelter, and water and sanitation. Financial decisions traditionally lie with male household heads, but there's an emerging trend of collective decision-making. Anticipatory actions, particularly disbursing cash aid before floods, are seen as critical for preparedness. However, challenges exist, like blocked roads and concerns over price hikes. While the government has implemented safety net programs, there's still room for expanded coverage and support



Response Phase: Needs and Coping Tactics: The top five immediate needs include: a continuous supply of safe drinking water (43%), essential food packages such as rice and lentils (42%), toilet repairs and provision of temporary latrines (33%), repair and disinfection of drinking water sources (25%), and standardised dry food packages (13%). Several other needs, which garnered less attention in the survey, such as mental health support, reproductive health services, and drainage and waste management, remain crucial to safeguard lives post-flood. On the subject of long-term concerns following large-scale monsoon floods, over 60% of respondents identified financial deficits as a prime worry, with a significant number expressing apprehension regarding food security. The data showed financial strains and food security as the prime concerns, with negative coping tactics like selling livestock or productive assets being more prominent among farmers.



Households' Information Needs and Community Engagement: In assessing the information needs and preferences of communities in the context of flood events, it's clear that relocation stands as the primary concern. A proactive local-level approach, in partnership with local authorities, is deemed essential. Despite the widespread use of mobile technology, face-to-face interactions remain paramount for both disseminating information and soliciting feedback. This preference underscores strong community cohesion and collective responsibility. Moreover, community leaders serve as crucial intermediaries between their communities and aid providers. While technology, especially mobile pho-

nes, offers a channel for feedback, it's the direct, personal engagements that the community values most for raising concerns and giving feedback. Overall, these insights highlight the importance of direct, inclusive, and participatory engagements for effective disaster management and community development.



Conclusions and Recommendations: In addressing monsoon floods in Bangladesh, the study underscores crucial areas of focus. Firstly, there's an urgent need to bolster early warning systems and community trust in them, given that only half recognise their vulnerability to floods and just a third receive timely alerts. Household preparedness is commendable, with a significant awareness of mitigation tactics, such as elevating homesteads. However, the vulnerability of 'kutchha' houses underscores the importance of promoting resilient housing. Financial challenges are prevalent, highlighting the necessity for financial resilience measures and diverse livelihood strategies. The research advocates for a robust household contingency plan, improved evacuation methods, and a targeted cash+ approach to address extensive flood damages. Emphasising both household and community-level strategies is pivotal for holistic disaster management. Post-flood, addressing essential needs such as clean water and food is vital, along with continued community consultation, prioritising face-to-face engagement. Ensuring access to crucial flood-related information and enhancing community feedback mechanisms emerge as top recommendations.

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ABBREVIATIONS

ABBREVIATION	NAME
AA	Anticipatory Action
RCWG	Asia-Pacific Regional Cash Working Group
CWC	Cash Working Group
DDM	Department of Disaster Management
DMC	Disaster Management Committee
Eco-DRR	Eco-Based Disaster Risk Reduction
EWS	Early Warning System
FGD	Focus Group Discussion
GBV	Gender-Based Violence
GoB	Government of Bangladesh
HAG	Humanitarian Advisory Group
HCTT	Humanitarian Coordination Task Team
ICCG	Inter-Cluster Coordination Group
IDP	Internal Displaced Population
IFRC	International Federation of Red Cross and Red Crescent Societies
INGO	Catholic Relief Service
INGO	International Non-Government Organisation

ABBREVIATION	NAME
KII	Key Informant Interview
L/NAs	Local and National Agencies
LCG	Local Consultative Group
LTGW	Localisation Technical Working Group
MoDMR	Ministry of Disaster Management and Relief
NPDM	National Plan for Disaster Management
SFB	Start Fund Bangladesh
UN RCO	Office of the UN Resident Coordinator
WASH	Water Supply, Sanitation and Hygiene

1. INTRODUCTION

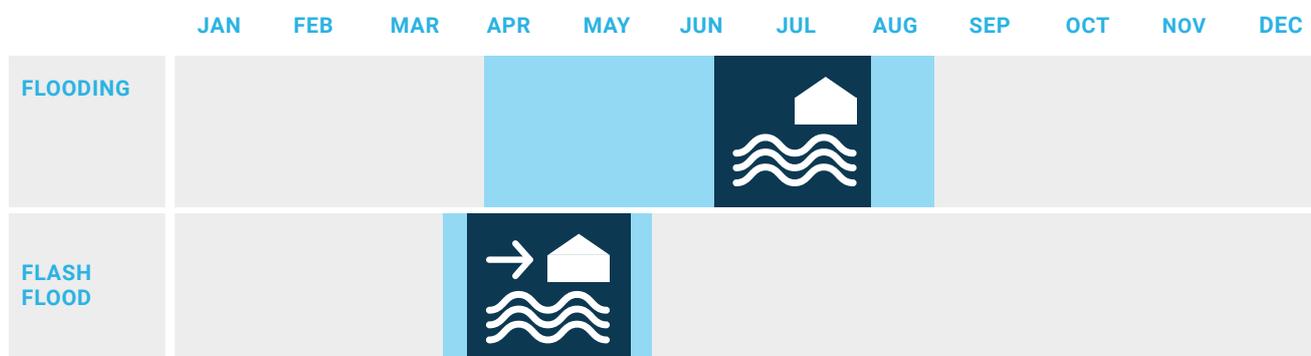
1.1 MONSOON SEASON IN BANGLADESH

Monsoon season in Bangladesh refers to the period of heavy rainfall and strong winds that occur from **June to September**. This season is a crucial part of the country's climate and plays a significant role in shaping its agricultural and economic activities. While monsoons bring much-needed water for irrigation and replenishing water bodies, they also pose various challenges and impacts on different aspects of life in Bangladesh.

- **Impact on crops:** The monsoon season is vital for agriculture in Bangladesh as it provides the necessary water for crop cultivation. However, excessive rainfall and occasional flooding can damage crops, leading to reduced yields and even complete loss of agricultural produce.
- **Impact on livestock:** Floodwaters and waterlogged areas pose a threat to animals, leading to the loss of livestock and damage to animal shelters. Diseases spread more easily during the monsoon season, putting livestock at a higher risk of illness and death. Moreover, scarcity of fodder and proper nutrition during this time can have long-term effects on the health and productivity of the animals.
- **Temporary displacement:** In flood-prone areas, some people temporarily re-locations in the monsoon season. They move to higher ground or seek temporary arrangements in flood shelters provided by the government. This helps protect them from the immediate dangers of flooding and allows them to resume their activities once the water recedes.
- **Staying behind with animals:** On the other hand, some people, particularly those who rely on livestock for their livelihood, prefer to stay behind and protect their animals during the monsoon season. They construct elevated platforms or makeshift shelters to keep their animals safe from floodwaters. Staying behind with the animals ensures their well-being and prevents loss, but it also exposes individuals to potential risks.
- **Resuming livelihoods:** The time it takes for households to bounce back to normalcy after the monsoon season varies depending on the severity of the floods and the level of damage incurred. It can take several months or even years for households to fully recover from crop losses, property damage, and financial setbacks. The government and various non-governmental organisations play a crucial role in providing support and aid to affected communities to expedite the recovery process.

Overall, the monsoon season in Bangladesh in the below calendar **“Flood Season in Bangladesh”** has both positive and negative impacts. While it provides much-needed water and sedimentation for agriculture, it also brings challenges such as flooding, crop damage, and livestock losses. The ability of households to bounce back to normalcy depends on the extent of the damage and the availability of support systems in place to help them mitigate the impact ahead of peak floods and resume their livelihoods after.

FLOOD SEASON IN BANGLADESH (APRIL TO SEPTEMBER)



1.2 DISASTER RISK MANAGEMENT IN BANGLADESH

Disaster management in Bangladesh involves a comprehensive approach that encompasses **preparedness, anticipatory action, response, and recovery**. Given the country's vulnerability to natural disasters such as cyclones, floods, and landslides, an effective disaster management system is crucial to save lives, reduce damages, and support affected communities. The key elements of disaster management in Bangladesh:

- **Preparedness:** a proactive approach to prepare for and reduce the impact of disasters. In Bangladesh, preparedness measures include:
- **Early Warning Systems:** The country has established robust early warning systems that monitor weather patterns, river levels, and seismic activity. These systems are designed to provide timely alerts to communities and authorities, enabling them to take necessary actions.
- **Evacuation planning:** Evacuation plans are developed to ensure the safe movement of people from high-risk areas to designated shelters or safer locations. This includes identifying evacuation routes, establishing evacuation centres, and conducting simulation exercises.
- **Capacity building:** Capacity-building programs are conducted to enhance the skills and knowledge of communities, government officials, and humanitarian actors in disaster management, first aid, search and rescue techniques, and emergency response protocols. For capacity building the humanitarian community is promoting **the area-based disaster management coordination committee (DMC) coordination model**¹ in Bangladesh.

¹ Bangladesh Area-Based Disaster Management Committee (DMC) Coordination Model 2021 ([link](#))

Anticipatory Action: Anticipatory Action involves a proactive and coordinated set of actions ahead of predicted hazards, aiming to prevent or minimise the impact and humanitarian needs before they fully unfold. A collaborative effort among the humanitarian community, including Start Network, WFP, FAO, UNFPA, CARE, SAVE, and UNICEF, has supported the development of **district flood contingency plans and anticipatory action systems** in flood-prone regions. These initiatives incorporate early warning systems, risk assessments, pre-positioning of resources, community engagement, capacity building, and stakeholder collaboration to address imminent extreme weather events and protect at-risk populations. By integrating anticipatory actions with government-led efforts, Bangladesh demonstrates resilience and sets a positive example for the Asia-Pacific region in proactive disaster preparedness, anticipation, and response. Anticipatory action in Bangladesh includes:

- **Pre-positioning of relief items:** Relief supplies such as food, water, medical kits, and shelter materials are pre-positioned in strategic locations to ensure rapid response in disaster-affected areas.
- **Pre-emptive measures:** Pre-emptive measures are taken to reinforce vulnerable infrastructure, secure loose materials, strengthen embankments, and safeguard critical facilities to withstand potential disasters.
- **Timely evacuation:** Anticipatory evacuation is implemented in high-risk areas before a disaster strikes, based on forecasted conditions. Deploying volunteers to support at-risk communities is a crucial component of evacuation in Bangladesh for contextualised information on lifesaving services including access to shelter information.
- **Risk communications:** Bangladesh has a proactive approach to disseminating last-mile early warnings to remote villages affected by predictable hazards. Humanitarian partners are actively involved in supporting widespread common messaging efforts, including hygiene promotion messaging, communication campaigns and mobile health camps. These initiatives aim to maximise the impact of life-saving interventions and ensure effective communication reaches the affected population.
- **Cash+ support:** With the support of the humanitarian community extensive anticipatory action experience has been built over the past few years in Bangladesh for several hazards. The delivery of anticipatory action is time critical. Given the short lead times, unconditional cash and vouchers are a major component. Besides the unconditional cash, there is a provision of jerricans, mobile water treatment units, water purification tablets, animal feed, flood-proof storage, hygiene items, menstrual health management kits, and other forms of in-kind support.

Response: The response phase focuses on immediate actions to save lives, provide emergency assistance, and meet the urgent needs of affected populations. Key elements of the response phase include:

- **Search and rescue operations:** Specialised search and rescue teams are deployed to locate and rescue individuals trapped in collapsed structures or affected by floods. This involves coordination between government agencies, armed forces, and international humanitarian organisations.
- **Emergency relief distribution:** Emergency relief items, including food, water, shelter materials, medical supplies, dignity kits, menstrual health management kits and household hygiene kits, are distributed to affected communities. Coordination mechanisms ensure the equitable and efficient distribution of aid.
- **Healthcare and medical services:** Medical teams, field hospitals/mobile health camps, deployment of additional health services providers such as midwives, doctors, and essential equipment, are set up to provide emergency medical care, ante-natal and postnatal care and institutional delivery of pregnant women, treat injuries, prevent the outbreak of diseases, and ensure the continuity of essential healthcare services.

Recovery and rehabilitation: The recovery phase focuses on restoring normalcy, rebuilding infrastructure, and supporting affected communities to rebuild their lives. Key elements of the recovery phase include:

- **Infrastructure rehabilitation:** Efforts are made to repair and reconstruct damaged infrastructure, including roads, bridges, schools, hospitals, and water supply systems. This is essential for restoring basic services and promoting long-term resilience.
- **Livelihood restoration:** Programs are implemented to support the recovery of livelihoods, including agricultural assistance, income generation initiatives, and vocational training to help affected communities regain economic stability.
- **Ecosystem restoration:** Implementing various restoration measures, such as wetland restoration, floodplain management, riverbank stabilisation, mangrove conservation, and sustainable agriculture, enhance flood management and resilience. Community engagement is essential in ensuring the success of restoration projects.
- **Long-term risk reduction:** The recovery phase provides an opportunity to implement long-term risk reduction measures, such as construction embankments and polders, cyclone/flood shelters, improving drainage systems, and promoting resilient housing construction practices.

Disaster management in Bangladesh is a collaborative effort involving government agencies, humanitarian organisations, civil society groups, and international partners. Coordination mechanisms, including the **Ministry of Disaster Management and Relief (MoDMR) Department of Disaster Management (DDM)**, the Humanitarian Coordination Task Team (HCTT), and the Inter-Cluster Coordination Group (ICCG), facilitate effective coordination, information sharing, and resource mobilisation among stakeholders, complementary planning, and coherent implementation of interventions.

By adopting a holistic approach that encompasses preparedness, anticipatory action, response, and recovery, Bangladesh aims to strengthen its resilience, reduce disaster and climate change-related risks, and ensure the well-being of its population in the face of recurring natural hazards.

1.3 HCTT NEXUS STRATEGY 2021-25

The **HCTT Nexus Strategy for Climate-related Disasters² aligns with the National Plan for Disaster Management (NPDM) 2021-25**. It outlines strategic objectives and key actions across four sections: risk and impact analysis, priority preparedness actions, partnership and institutional capacity, and action plan for response.

Within the strategy, four transformative changes are identified: early warning system (EWS), anticipatory action (AA), durable solution for internally displaced population (IDP), and eco-system-based disaster risk reduction (Eco-DRR). These changes aim to address gaps and complement the efforts of the Government of Bangladesh (GoB) in the respective areas.

The nexus strategy recognises that preparedness and anticipatory action are very much two sides of the same coin. In simple terms, the primary focus of preparedness is to identify the most appropriate response activities for a given crisis and ensure that operational readiness is in place to implement these activities. The focus of anticipatory action is on identifying the most appropriate activities that can mitigate the potential impacts of a crisis and ensuring that operational readiness is in place to implement these activities.

Preparedness and anticipatory action promote collaboration with humanitarian and development actors to limit the negative impacts of these events by addressing the underlying drivers of risk and building the capacity of people exposed to these hazards to anticipate, adapt, and recover.

² HCTT Nexus Strategy (2021-2025) - Humanitarian-Development Collaboration for Climate-Related Disasters in Bangladesh ([link](#))



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2. PRE-CRISIS SURVEY APPROACH

2.1 BACKGROUND

The collective outcome of the HCTT Nexus Strategy 2021-25 is “to improve system-wide coherence in support of coordinated efforts for saving lives and livelihoods of vulnerable and exposed populations” through an active commitment by humanitarian actors and government to use power responsibly by taking account of, giving account to, and being held to account by the people they seek to assist.

The strategy focuses on quantity, quality and timely anticipatory action and response and an inter-cluster approach to designing **Cash+ (cash and other forms of support)** transfers in Bangladesh, by knowing what people want and need, as well as understanding their practices, capacities, and coping strategies.

To enable the AA and post-flood response interventions to be **people-centred** the Inter-Cluster Coordination Group (ICCG) acknowledged the need for an inter-sectoral pre-crisis survey to inform the cash+ package formulation. The initial objective was to implement a multi-hazard survey but given the capacity and time, the decision was taken at the ICCG to start with a survey for monsoon flooding and based on the experience to further continue the exercise for other hazards, starting with cyclones.

Most agencies and implementing partners had previous experience in monsoon flood anticipatory actions and response which made orientation, data collection, and community consultations happen on more familiar ground.

The goal of the pre-crisis survey is also to enable the identification of perceptions of at-risk communities applicable to multi-hazards. Leading this inter-cluster task in Bangladesh the UN RCO requested the Asia-Pacific Regional Cash Working Group (RCWG) for technical support.

2.2 OBJECTIVES AND TIMELINE

The pre-crisis consultations look broadly at people’s perceptions regarding monsoon floods as well as programmatic aspects relevant to the design of the anticipatory and response interventions with cash components.

Specific Objectives:

- To understand the perceptions of the at-risk communities on the hazard, exposure, vulnerabilities, and their coping capacities.
- To provide an initial analysis of needs, priorities and preferences, access to information platforms, communication channels, and accountability mechanisms on the ground.
- To provide a set of recommendations to design an inter-sectoral unified cash+ package for anticipatory actions and post-response.

TIMELINE:

21 May 2023 - 5 June 2023:

Preliminary agreements on the pre-crisis survey indicators, methodology and target geographical locations in the high-risk areas.

ICCG agreement for conducting the pre-crisis survey with at-risk communities to develop the unified AA cash+ package as part of the people-centered approach

Total of 30 UN, INGOs and L/NAs participated in the survey orientation session on data collection and community engagement.

6-13 June 2023:

Under the leadership of cluster leads and the Start Fund Bangladesh both qualitative and quantitative field surveys were conducted in six monsoon flood-prone districts.

15-20 June 2023:

The data analysis - quantitative and qualitative

21 June 2023:

Workshop to validate findings with the cluster coordinators, Start Fund Bangladesh, and selected L/NAs who were engaged in the data collection.

22 June 2023:

ICCG Cash Working Group (CWG) workshop to formulate cash+ package for the multi-hazard scenario.

15 July:

Survey report and anticipatory cash+ framework drafted.

August 2023:

Finalise the survey report for presenting at the Humanitarian Advisory Group (HAG) and HCTT for endorsement.

RCO 'NO COST' APPROACH:

The **Office of the UN Resident Coordinator** employs a no-cost approach in the pre-crisis analysis, leveraging resources and stakeholder engagement without additional expenses. This strategy includes three key components:

Leadership: The UNRCO divides geographic responsibilities among clusters via existing Inter-cluster coordination mechanisms. Each **cluster leads** operational planning and data collection, thereby enhancing communication and reducing duplication of effort.

Partnerships: Collaboration with **Local and National Actors (L/NAs)** is facilitated through localisation technical working groups and volunteering efforts. These partnerships allow for resource pooling and align objectives for conducting quantitative and qualitative surveys.

Crowdsourcing: The **Needs Assessment Working Group** manages online data collection and analysis using the Kobo platform. A two-day workshop is also organised to validate findings and reach a consensus on the Cash+ approach to be taken.

The finalised report, a collaborative effort by the **Regional Cash Working Group** and **RCO** is reviewed by the **Inter-Cluster Coordination Group**, thus ensuring comprehensive stakeholder involvement without incurring extra costs.

2.3 FIELD SURVEY

- The field survey was conducted in selected districts of Bangladesh, representing regions prone to monsoon flooding in both the **Jamuna** and **Padma River basins**. A total of 6 districts, 12 Upazilas, and 24 unions were selected for data collection. The sample design was led by the RCO in consultation with the **Localisation Technical Working Group (LTWG)** and agreed upon by the ICCG.
- A total of **873 quantitative survey** records were conducted to ensure a comprehensive capture of at-risk households' perceptions.
- Due to time and operational constraints, the survey was not designed to provide a statistically representative sample for the selected geographical locations, instead, the aim was to enable the identification of key patterns in responses from at-risk households, draw conclusions, and formulate recommendations for a unified inter-sectoral Cash+ package.



- To gather additional insights, 24 focus group discussions with the Union Disaster Management Committee (DMC), 48 FGDs with vulnerable communities and 24 Key Informant Interviews (KIIs) with community leaders were conducted by cluster leads, and the Start Fund Bangladesh, and RCWG Coordinator.

District	Upazila	Lead Cluster/ Network	No HH Survey	FGD with UDMC	FGD with Vulnerable Groups	KII with Community Leaders
Tangail	Bhuapur	Shelter	70	2	4	2
Tangail	Nagarpur	Shelter	71	2	4	2
Sirajganj	Chauhali	Food Security	72	2	4	2
Sirajganj	Kazipur	Food Security	72	2	4	2
Shariatpur	Naria	Start Fund BD	70	2	4	2
Shariatpur	Zajira	Start Fund BD	73	2	4	2
Kurigram	Raumari	WASH	69	2	4	2
Kurigram	Ulipur	WASH	118	2	4	2
Jamalpur	Dewanganj	Displacement Mgt.	65	2	4	2
Jamalpur	Islampur	Displacement Mgt.	64	2	4	2
Gaibandha	Fulchhari	GBV/LTWG	64	2	4	2
Gaibandha	Saghatta	GBV/LTWG	65	2	4	2
		TOTAL	873	24	48	24

2.4 ANALYSIS OF RESULTS

The report findings are grouped into four categories organised in the same sequences as a flood timeline. The aim of this approach is to identify how people's perceptions of risks and access to early warning information influence what they do before the flood, how these preparations reduce the impact of the flood and their subsequent needs, and what is the information needs of people at all stages of this continuum.

The report focuses on what happens before the monsoon flood and the main assumption of this approach is that by systematically understanding what households do before a hazard event and supporting their mitigation measures, the needs during the response phase will be considerably reduced, ideally enabling households and communities to require little or no 'response phase' humanitarian assistance.

The four categories:

- **Risk perception and early warning:** The analysis looks at the respondents' profile i.e., age, gender, and disability, the sources of livelihoods and housing structure, the impact of previous monsoon floods, their perceptions of monsoon flood risks, and their access and preferences related to early warning information.
- **Households' preparations for monsoon floods:** The bulk of the findings are in this category as they look at household flood-mitigation measures, household needs before the flood, their spending patterns and decision-making, preferred modalities of receiving assistance as well as, cash preferences and concerns.
- **Response phase: needs and coping tactics:** These findings pertain to what happens after peak flood and the ensuing period i.e., immediate needs after peak flood and priorities, and post-flood concerns and coping tactics.
- **Information needs and community engagement:** These results are relevant at all stages of the Disaster Management cycle and the analysis makes recommendations specifically relevant for the preparedness and anticipation phase i.e. information needs and preferred channels for Early Warning and preferred modes of consultation, and channels of relevance for feedback and complaints.

This report presents a comprehensive analysis by combining quantitative findings with the results obtained from focus group discussions (FGDs) and key informant interviews (KIIs). The inclusion of these qualitative methods enriches the understanding of the analysis and provides valuable insights from different perspectives. Important to mention here that gender-based violence (GBV) is so pervasive in society, that people often do not discern its risks, particularly during a natural disaster crisis. Therefore, the risk perception of the survey will be triangulated to highlight the GBV risks of women, girls, and other vulnerable groups.

Furthermore, the outcomes of the validation workshop, which was an integral part of the assessment process, are also included in the report. The validation workshop brought together relevant stakeholders and experts to review and discuss the findings and conclusions derived from the data analysis. This collaborative approach ensured the robustness and credibility of the research outcomes.

2.5 LIMITATIONS OF STUDY

Limited geographical coverage: The survey was conducted in selected districts of Bangladesh, specifically targeting regions prone to monsoon flooding in the Jamuna and Padma River basins. This limited coverage means that the findings should not be extrapolated and used to form conclusions related to other areas of the country.

Non-representative sample: The sample design was led by the **RCO** in consultation with the **Localisation Technical Working Group (LTWG)** and endorsed by the **Inter-Cluster Coordination Group (ICCG)**. However, due to time and operational constraints, the survey was not designed to provide a statistically representative sample for the selected geographical locations. Therefore, caution should be exercised when generalising the findings to the broader population. Due to limited time, the survey design could not include marginalised groups such as transgender and several other occupationally marginalised groups such as the Dalits.

Potential response biases: The data collection process relied on self-reported responses from at-risk populations. There is a possibility of response biases, such as social desirability bias or recall bias, which could influence the accuracy and reliability of the gathered information. The survey was not designed to analyse the needs/risks of individuals which can be varied within a household. Specific marginalised communities such as the gender diverse groups – hijra communities, female sex workers, don't live in 'regular' household structures but are equally vulnerable to the impacts of floods.

Limited qualitative data sources: Although focus group discussions (FGDs) and key informant interviews (KIIs) were conducted to gather additional insights, the number of FGDs (48) and KIIs (24) may not capture the full range of perspectives and experiences in the target geographical areas. This limitation should be considered when interpreting the qualitative findings.



3. RISK PERCEPTION AND EARLY WARNING

Analytical Questions

What is the type, content, and relevant channels of early warning information and lead time available to at-risk households?

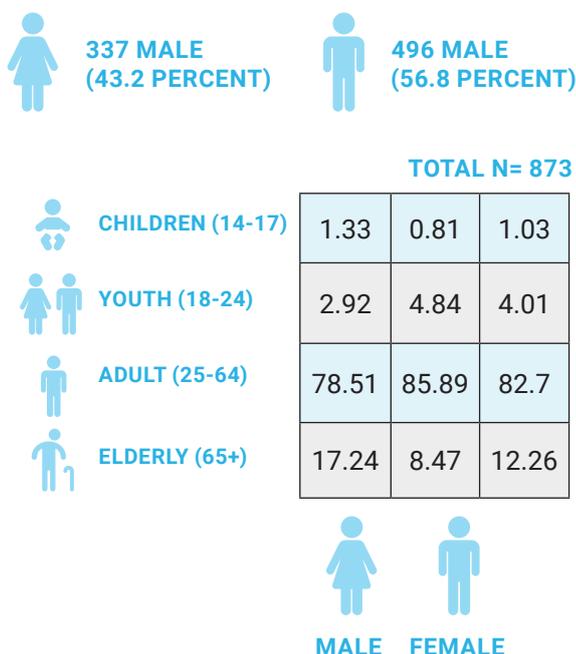
What are at-risk household's perceptions of early warning messages, do they generally trust and act upon the information?

3.1 RESPONDENT PROFILE: AGE, GENDER, AND DISABILITY

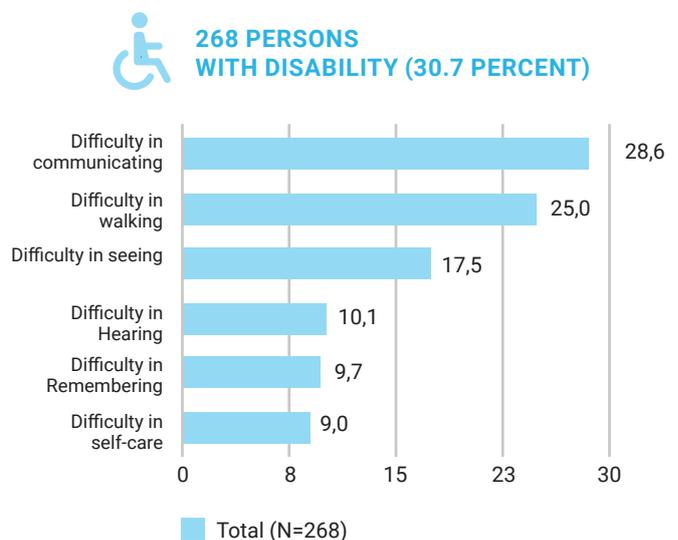
The quantitative survey of the population falls within the "Adult (25-64)" category, comprising approximately 82.7% of the total survey population. The second-largest group is the "Elderly (65+)" category, making up around 12.26% of the population. The "Children (14-17)" and "Youth (18-24)" categories have percentages of approximately 1.03% and 4.01%, respectively.

In general, the adult population (ages 25-64) has a higher proportion of females (85.89%) than males (78.51%). The difference is most pronounced in the "Youth (18-24)" category, with a significantly higher percentage of females (4.84%) compared to males (2.92%). On the other hand, the "Elderly (65+)" category shows a more substantial percentage of males (17.24%) than females (8.47%). The "Children (0-17)" category has a slightly higher percentage of males (1.33%) compared to females (0.81%).

AGE, GENDER AND DISABILITY



STATUS OF DISABILITY



The overall percentage for the entire surveyed population indicates that individuals reported various forms of disabilities with 268 individuals (approximately 30% of the population). The highest percentage of reported difficulty is related to "communicating," with approximately 29% of the population facing challenges in this area. The "walking" and "seeing" difficulties are also relatively common, with approximately 25% and 17% of the survey population, respectively.



3.2 LIVELIHOODS AND HOUSING

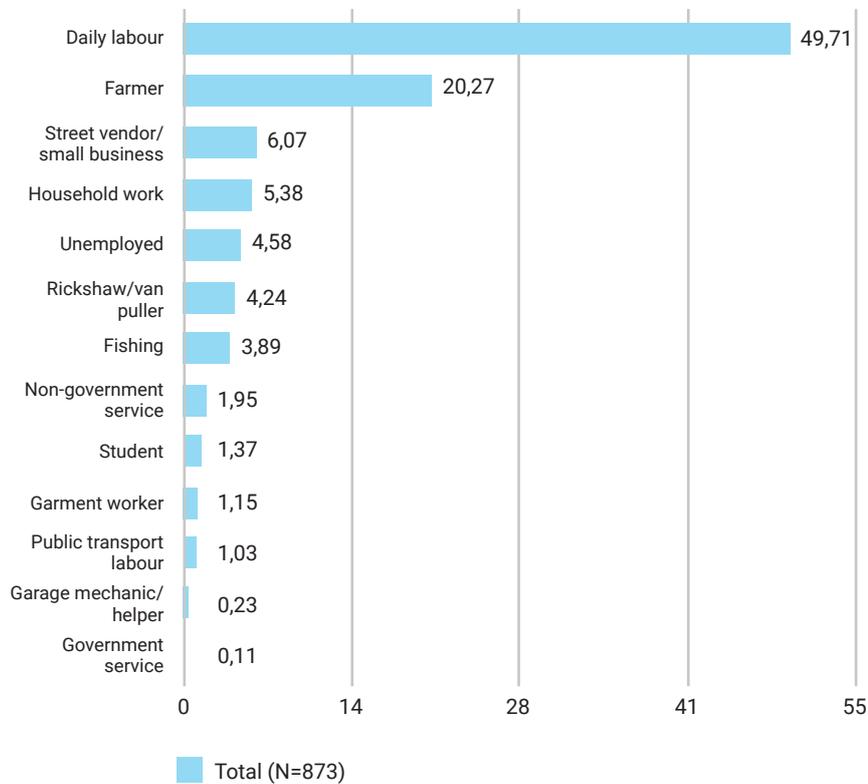
Based on the quantitative results, the main livelihood groups appear to be that of **daily labourers**, yet this category includes several types of trades from construction work or shopkeepers as well as people who work for a daily wage on other people's farms and perform tasks related to crop and/or livestock management.

The **farmer** category includes livestock owners and based on the community consultation it was identified that a large portion of households' sources of income are from both **land cultivation and livestock**. A large portion of respondents own a small number of animals, apart from the plot of land used for cultivation.

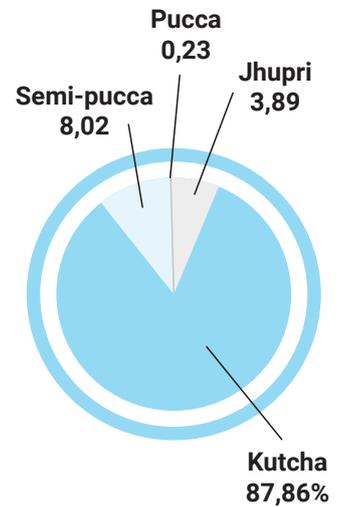
The households interviewed were chosen from the most vulnerable communities in terms of hazard exposure as well as **wealth group**. Most interviewees are from the **poor / extremely poor** categories.

LIVELIHOODS AND HOUSING

Main Income Source



Housing Structure



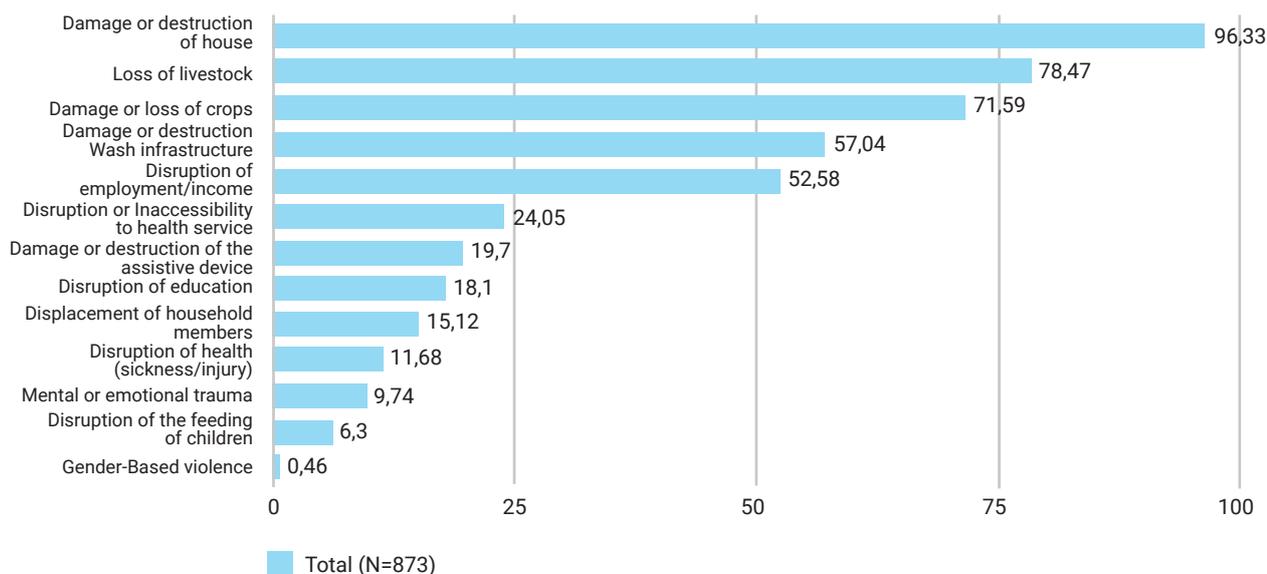
The majority of the at-risk study people reside in '**Kutchha**' houses, which pose significant risks during extreme weather events. These houses are highly vulnerable to damage and destruction, particularly during floods. The mud walls of kutchha houses can erode, and the thatch roofs may become waterlogged, resulting in the collapse of the entire structure. Inside this the inhabitants are in immediate danger, heightening the risk of injuries and even fatalities. Moreover, the loss of shelter due to the destruction of '**Kutchha**' houses leaves families homeless, intensifying their vulnerability and dependence on humanitarian assistance.

3.3 IMPACT OF PREVIOUS MONSOON FLOODS

Unsurprisingly, the quantitative findings reveal the type of impact most quoted by respondents is often measured across three main categories: **life, assets,** and the **environment**. The findings underscore the multifaceted nature of the impacts caused by monsoon floods in Bangladesh. The findings show however that the households living in flood-prone areas have a good level of resilience.

IMPACT OF PREVIOUS MONSOON FLOODS

Households Impacted by Previous Monsoon Flood



Damage: Flood manifests firstly through damage or destruction of property. The respondents reported household damage or destruction highlights the vulnerability of infrastructure, assets, and the environment in flood-prone areas.

- **House:** The flood resulted in damage or destruction to the homes of 96.33% of the population.
- **Livestock:** The livestock of 78.47% of people was damaged or lost due to the flood.
- **Crops:** The flood resulted in crop damage or loss, affecting 71.59% of the population.
- **Wash infrastructure:** Over half (57.04%) of the population saw damage to water and sanitation infrastructure.
- **Assistive devices:** 19.7% of the population experienced damage to or loss of assistive devices i.e., wheelchair wheelchairs, scooters, walkers, canes, crutches, prosthetic devices, and orthotic devices.

Disruption: The monsoon floods lead to severe disruptions across various sectors, affecting service provision, economic activities, and social functions.

- **Economic activities:** As many as 52.58% of the population experienced disruptions in their employment or income due to the flood. This disruption likely affected the economic stability of families and individuals, making recovery more challenging.
- **Disruption of health services:** Health services are vital during disasters for treating injuries and preventing and managing disease outbreaks. However, 24.05% of the population experienced disruption or inaccessibility to health services due to the flood, exacerbating the health impacts of the disaster. The groups affected most by this compromised situation are pregnant women, persons with disabilities and the elderly.
- **Disruption of education:** Floods damage schools and interrupt transportation, preventing children from continuing their education. This situation was faced by 18.1% of the population, which had educational disruptions due to the flood.
- **Temporary displacement:** Flooding forces people to leave their homes, either because of damage to the structure or due to safety concerns. This resulted in 15.12% of the population being displaced and re-locating in places that are often not safe, secure, and dignified particularly for women and girls. The timeline of displacement ranges between a few weeks to months in some cases. In rare instances, displacement can lead to the permanent relocation of certain groups.
- **Disruption of feeding of children:** The feeding schedules of children under 2 years of age are critical for their growth and development. However, due to the flood, feeding schedules were disrupted for 6.3% of the population, potentially impacting the health of these children. Although this percentage is small, this likely entails that parents adopt

various forms of negative coping tactics to continue feeding of their children but result in other forms of negative impact, particularly taking out loans difficult to repay, which further hinders the economic recovery of households.

Distress: The monsoon floods induced significant distress among affected communities. This distress can manifest in physical, emotional, and social dimensions as the damage and disruption caused by these disasters reduce livelihood opportunities and hinder access to essential needs, which in turn can lead to social tensions and insecurity, particularly for vulnerable groups.

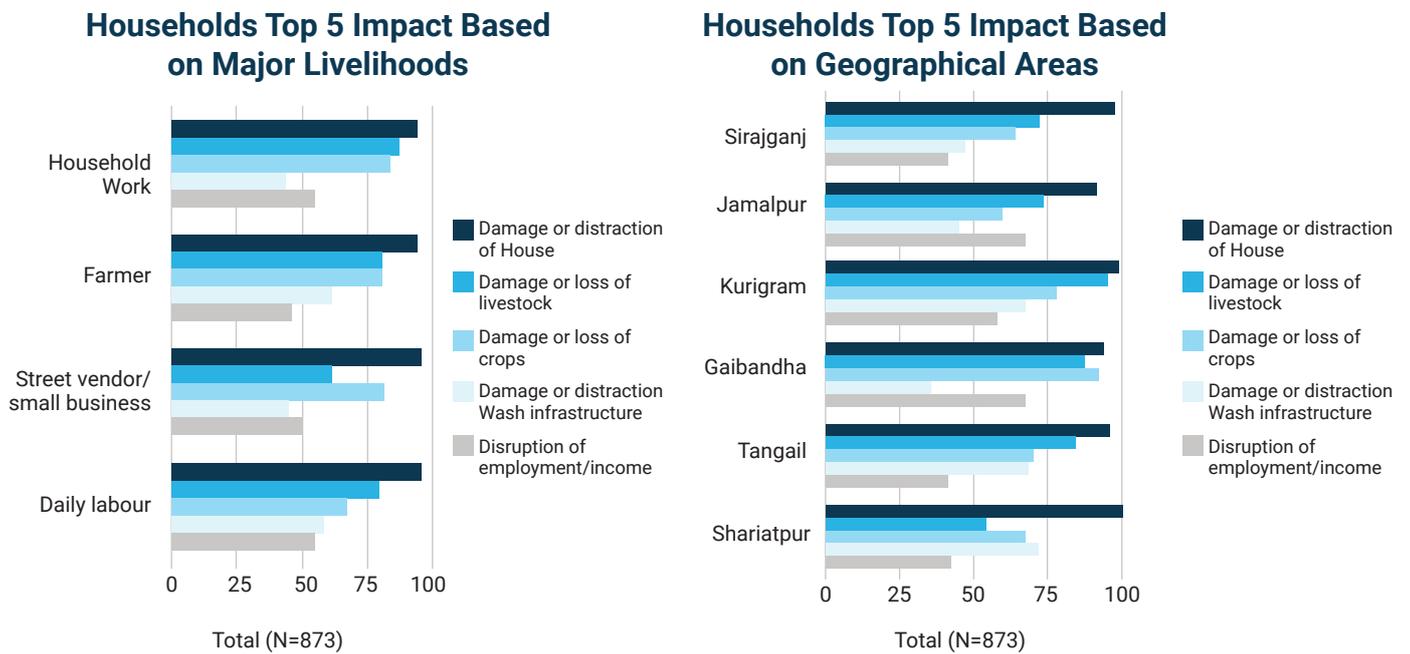
- **Physical distress:** The floods led to disruption of employment or income loss for more than half of the respondents. Damage or loss of agricultural crops and livestock was reported by over two-thirds of respondents, intensifying food security challenges. Approximately 12% of the respondents experienced health-related distress due to sickness or injury caused by the floods. Additionally, access to clean water and sanitation was compromised, raising the risk of waterborne diseases.
- **Emotional distress:** Experiences of displacement increase vulnerability to abuse, exploitation, and physical harm, inducing trauma, fear, anxiety, and apprehension. Mental or emotional trauma was reported by 9.74% of the respondents, while a smaller percentage (0.46%) reported experiences of gender-based violence, a severe form of distress triggered by the floods. Although a very low percentage of respondents reported risks of incidents of gender-based violence during the floods, it highlights the vulnerability of certain groups such as women, adolescent girls, gender diverse groups, persons with disabilities and pregnant women. Since flood breakdowns the 'community watchdog' system, women and girls in households, flood shelters or temporary shelters can be exposed to abuse, violation, and harassment even if such risks did not feature primarily in the respondents' answers.
- **Social distress:** The loss of assets and income, coupled with reduced employment opportunities, can drive communities into poverty (or further into poverty) and reliance on relief assistance. The ensuing social hardship leads to feelings of disgrace and dependency, intensifying the overall distress faced by those affected by such disasters.

The survey analysis team performed a few cross-tabulations to see if any patterns can be identified based on livelihood groups and geographical areas. We see no major differences in how the impact is perceived by various livelihood groups and geographical locations.

In the flood-prone districts of Jamalpur and Gaibandha, the disruption of employment and income is a major concern for the affected population during monsoon floods. These districts heavily rely on agriculture, making them particularly vulnerable to the impact of flood-related disruptions on livelihoods. Limited alternative job opportunities and a lack of income diversification can worsen the consequences of employment loss. Moreover, challenges in infrastructure and market access impede the recovery and resumption of economic activities after floods.

Overall, the moderate differences in these results highlight the relevance of an inter-sectoral **unified cash+ approach** for anticipatory action and response and the need for more of a 'blanket' yet equitable form of assistance, which also minimises the risk of social tensions between affected groups because of perceived bias or unequal distribution of support.

HOUSEHOLDS TOP 5 IMPACT BASED ON MAJOR LIVELIHOODS AND GEOGRAPHICAL AREAS



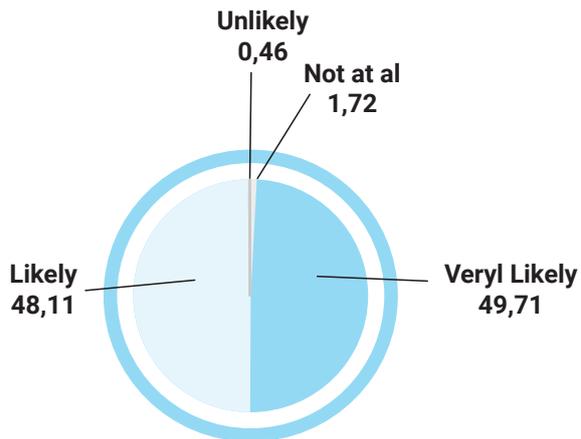
3.4 PERCEIVED RISK OF MONSOON FLOODS

The survey team wanted to look at **household's perceptions** regarding the **likelihood** of another flood happening as well as **how vulnerable** households perceive themselves.

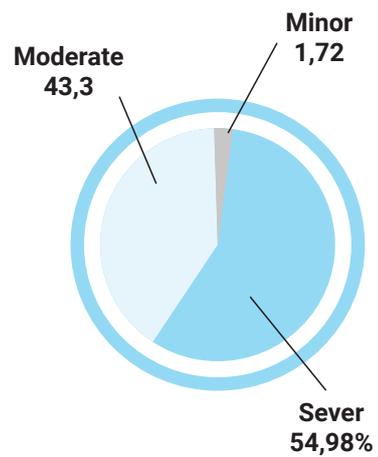
The aim was to evaluate whether at-risk households are more likely to prioritise mitigation/preparation actions ahead of peak flood or use the anticipatory cash+ assistance for other immediate needs. This objective emerged from focus group discussions which revealed that some households might, despite receiving sufficient warning time, prefer to spend cash on immediate needs rather than disaster preparations which would render the objectives of the AA assistance unachievable.

LIKELIHOOD AND SEVERITY OF IMPACT

Perception of Likely Impact of Current Monsoon



Perception of Impact Level of Current Monsoon



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The results above indicate that just over half of the people interviewed consider themselves particularly vulnerable to a monsoon flood. This finding can be further understood and expanded upon by considering the following factors:

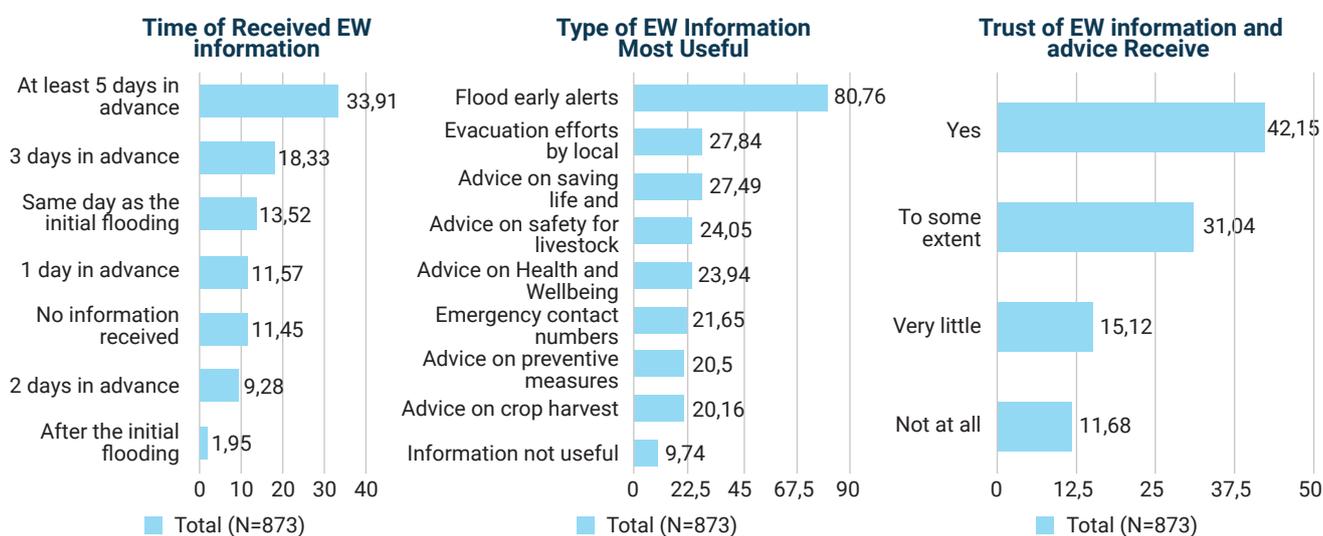
- **People's resilience:** Despite considering themselves vulnerable, the responses also suggest that the affected population demonstrates resilience. They have developed coping mechanisms and strategies to navigate with varied effectiveness through the challenges posed by monsoon floods. This resilience may stem from their previous experiences and the ability to adapt to recurring flood events.
- **Familiarity with flood impacts:** Respondents prone to frequent monsoon floods, and communities living in flood-prone areas have become familiar with these events. Their familiarity with the seasonal pattern of floods, as well as their knowledge of the potential impacts, enables them to be familiar with how to prepare and cope with flood situations.
- **Negative coping tactics perceived as 'normal':** The respondents' perception of vulnerability may also be influenced by their reliance on negative coping tactics that have become normalised due to the recurrent nature of monsoon floods. These negative coping tactics may include unsustainable measures such as taking on high-interest loans, selling off assets, girls' forced marriages, compromising children's education, or engaging in hazardous work to make ends meet during and after flood events. While these tactics may provide immediate relief, they can perpetuate a cycle of vulnerability and limit the long-term resilience of the affected communities.

3.5 EARLY WARNING MESSAGES AND COMMUNICATION

Approximately one-third of the respondents reported receiving an early warning alert five days in advance of a monsoon flood. This indicates that a portion of the at-risk communities have access to some form of early warning information, providing them with a head start to prepare for the impending flood event.

However, the responses also indicate a homogeneity in the type of early warning alerts received. This suggests that while there may be some form of alert system in place, the information provided is often limited and lacks systematic and detailed content. Additionally, women, girls and persons with disabilities are often left out or have inaccessibility issues in these early warning alert systems. Consequently, a large portion of at-risk communities do not have access to comprehensive and timely information that could assist them in making a more proactive approach and taking appropriate preparedness measures before the onset of a monsoon flood.

EARLY WARNING ALERTS



In terms of the mechanisms and content of flood early alerts, several channels are mentioned by the respondents. One commonly mentioned mechanism is the dissemination of alerts through mosques, which play a significant role in the local communities. Mosques act as central gathering points and facilitate the dissemination of important information to community members.

Additionally, community-level dissemination of early warning information is mentioned, indicating the use of local networks and community leaders to relay flood-related alerts. This highlights the importance of community engagement and mobilisation in disseminating critical information to at-risk communities.

Regarding the timeframe of the early alerts, the findings suggest that the alerts available five days in advance of a flood event are more limited in terms of their content and specificity. In contrast, alerts available three days in advance are likely to provide more detailed and actionable information to help communities prepare and respond effectively.

Based on the quantitative results, about two-thirds of at-risk households receive alerts between 3 to 1 day ahead of the waters reaching their homesteads which means that without investing in significant Early Warning, particularly the community-level dissemination, the options of household-level preparatory actions are reduced further.

The issue of **timing of early warning** versus the **preparatory options** available to households:

- Early warning notices are relevant especially 5 days in advance, 3 days in advance **reduces the options** of household-level preparations ahead of the flood.
- More required is the info on **'local evacuation plans'**.
- More detailed information ahead of the flood is relevant much earlier and does not need to be part of an early warning system but is more applicable to **information campaigns**, community awareness raising, and consultations.
- In practical terms, **at-risk households have at best 5 days to prepare** for the flood, either at the household level or a community approach where households prepare collectively.
- Even if **only one-third of households receive alerts 5 days in advance**, the results of the FGDs show that community-level preparations are implemented before the flood, so in this sense, we can assume that a form of preparedness is available to people who did not receive the initial alert.

One critical aspect that significantly influences how at-risk households and their communities react to flood warnings is the level of trust they have in the early warning information received. Based on the findings these are some key points related to trust in 'official' early warning messages versus traditional knowledge:

- **Trust in early warning:** While quantitative findings indicate that approximately a quarter of respondents have little to no trust in early warnings, community consultations reveal that it is highly unlikely for early warning information to be completely disregarded. Trust may vary among individuals and communities, but the consultations suggest that some level of trust exists, and that early warning information is generally considered in decision-making processes.
- The level of trust in early warning messages can impact how households react. Some households may choose to wait longer after receiving the alert before committing their own, mostly limited, resources or seeking assistance to make flood preparations. Trust in the accuracy, reliability, and relevance of the early warning information plays a crucial role in shaping their decision-making process.
- **Complementary sources of information:** Alongside early warning systems, many participants in the focus group discussions mentioned relying on their own **"Indigenous Knowledge"** to estimate the likelihood of a flood occurring within a few days. Based on the qualitative findings it was revealed that these forms of traditional knowledge which are localised and distinct between communities depending on their location and exposure to flood risk, sometimes are the primary source of early warnings. In other instances (less) these can be complementary sources of information, reinforcing or supplementing the early warning information received. Important to note as well that while this type of 'traditional' early warning is observed at different timelines compared to

early warnings, they have various levels of accuracy in terms of timing of peak flood and impact and can influence the type of mitigation measures households prioritise, either by individually or collectively. These decisions are influenced by the level of trust in locally available early warning messages. Examples of indigenous knowledge for preparing floods are:

- Prior to the rainy season, communities stock up on vital supplies like food and purified water.
- They preserve emergency provisions in secure wrappings.
- Vigilance is continuous, with banana trunk rafts facilitating movement.
- They employ flood barriers such as sandbags and have heightened infrastructures.
- Homes are built on bamboo stilts to keep them above water levels, and other innovative designs like raised hand pumps and flood-resistant sanitation systems are adopted.
- Leveraging traditional techniques, floating gardens are constructed on platforms made from water plants, enabling farming in inundated areas.
- Other adaptive activities comprise fishing in flood areas and rearing poultry.



Start Fund and SDS @ Shariatpur

4. HOUSEHOLD PREPARATIONS FOR MONSOON FLOODS

Analytical Questions

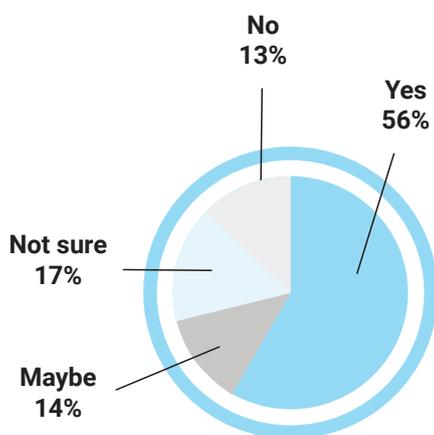
What households usually do to mitigate the impact of the monsoon flood, and what support they need to prepare?

What are household's perceptions related to cash and other forms of support, when is cash most useful, on what are they likely to spend the cash, and any concerns regarding cash?

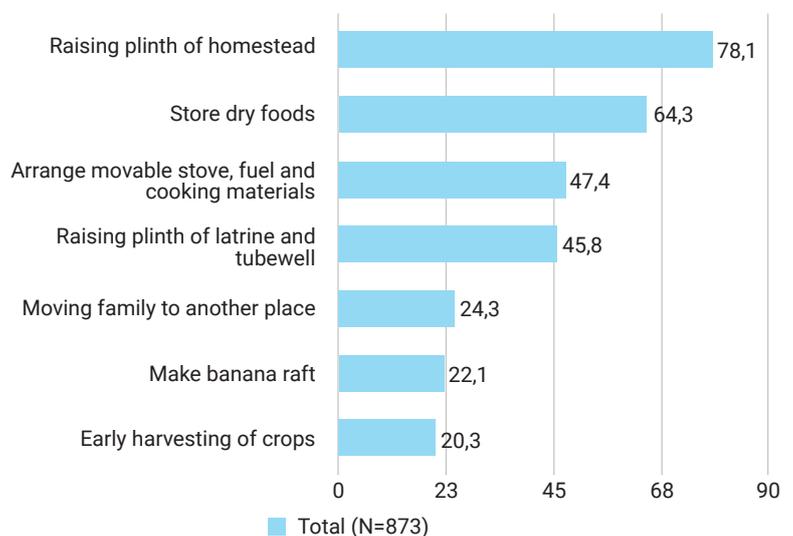
4.1 UNDERSTANDING HOUSEHOLD MITIGATION MEASURES

Understanding mitigation measures on monsoon floods for resilience refers to the level of knowledge and capacity that individuals, households, and communities possess to build resilience and adapt to the recurring challenges posed by monsoon floods due to disaster and climate change. Resilience in the context of monsoon floods involves the ability to withstand, recover from, and adapt to the impacts of these floods while minimizing damage and preserving livelihoods. category has a slightly higher percentage of males (1.33%) compared to females (0.81%).

Households Awareness of Mitigation Measures



Households Mitigation Measures for Risk Reduction



The data on awareness of mitigation measures for protecting families, houses, and livelihoods from flood impacts reveals that almost three-quarters of the interviewed households have knowledge of mitigation measures. However, this percentage is likely higher in practice due to the "community approach" taken by residents in flood-prone areas and their cyclical experience with this flood. The remaining quarter of respondents who expressed uncertainty or lack of knowledge regarding mitigation measures may include those who have recently settled in flood-prone areas and have not experienced large-scale flooding in their specific location. Overall, efforts are needed to enhance awareness and understanding of mitigation measures to build resilience and reduce the impact of floods on communities.

The mitigation measures quoted by households encompass both structural and preparatory actions that can be implemented at different timelines before and during the flooding event. These measures include:

- **Raise the plinth of homesteads:** The most prominent mitigation measure is raising the plinth (elevated platform) of the entire homestead. Elevating the foundation of houses or communities helps protect homes and belongings from floodwater, reducing damage and losses.



IFRC and BDRCS @ Aditmari Upazila, Lalmonirhat

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- **Store dry foods:** Storing dry foods in advance is a common mitigation measure. This ensures that households have access to non-perishable food items during flood-induced disruptions when regular food supplies may be limited. These include household preserves of rice, vegetables, dry fish, chira, muri etc. and usually stored in household food silos.
 - **Arrange movable stoves, fuel, and cooking materials:** Having a movable stove, along with sufficient fuel and cooking materials, allows households to continue cooking during floods when regular kitchen spaces may be flooded. These stoves are easily portable, and they can be used in places where households temporarily relocate.



- **Raising plinths of latrines and tubewells:** Elevating the plinth (elevated platform) of latrines and tube wells helps prevent floodwater from contaminating these essential facilities, ensuring access to sanitation and clean water even during floods.
- **Moving family to another place:** When anticipating a severe flood, some households decide to temporarily relocate to safer locations to protect their lives and avoid the risk of flood-related hazards. During focus group discussions with women, they mentioned in some household's pregnant women are relocated to a relative or neighbour's place that is above flood level. Transportation of pregnant women and persons with disabilities has higher risk and cost implications.



- **Make banana rafts:** In flood-prone areas, some households construct floating rafts using banana trees. These rafts serve as a means of transportation during floods, allowing families to move from one place to another without getting trapped in floodwaters.
- **Early harvesting of crops:** Some households opt to harvest their crops early to minimise losses due to floods. By harvesting crops before floodwaters inundate the fields, they can salvage a portion of their agricultural production.

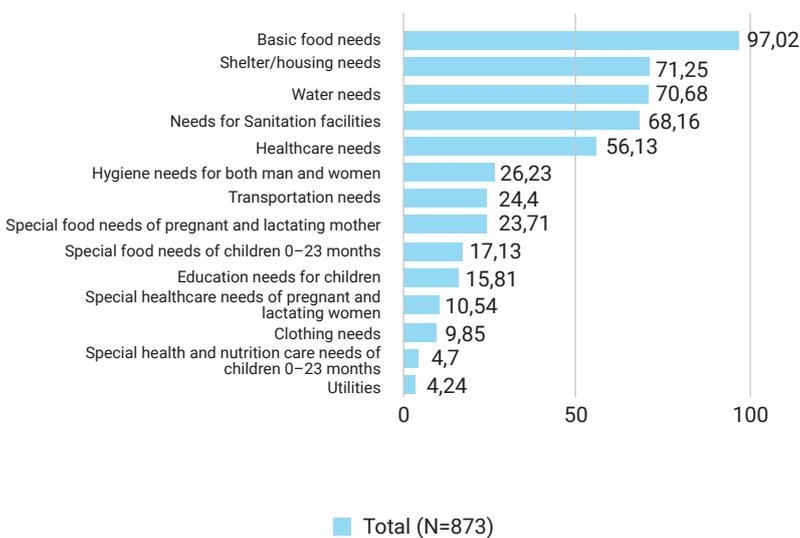
The responses indicate that the community is actively engaged in taking various preventive actions to protect themselves and their assets from the impact of monsoon floods, demonstrating their commitment to building resilience against such natural disasters. There are no major differences in mitigation measures based on livelihood groups.



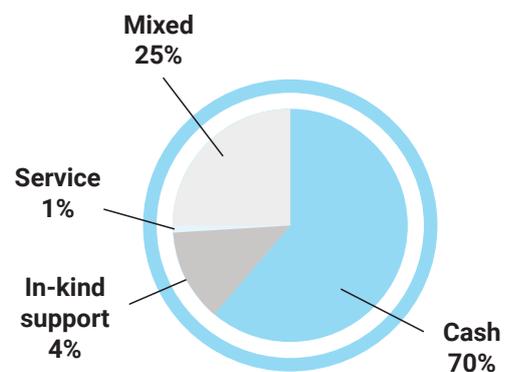
4.2 HOUSEHOLD NEEDS BEFORE FLOOD

The respondents were asked to think of **past floods** and their own experiences and to consider the timeline of the event. Using this scenario, they were asked to specify **their household needs before the flood** and the **type of support** that was (or would have been) useful for them to prepare.

Household Needs Before Floods



Useful Form of Assistance for Readiness



Prioritising food security: Results highlighted the critical need for food before floods, considering chronic unmet needs and negative coping tactics. Respondents emphasised both immediate requirements after evacuation and the importance of stockpiling essential food items in advance.

Shelter support: Almost everyone recognised the significance of shelter support before floods, with three-quarters of the interviewed individuals taking preparatory measures and implementing structural changes to minimise the physical impact of floods on their homes and yards.

Access to safe water, sanitation, and hygiene: For three-quarters of respondents, water emerged as a priority. Discussions underscored the crucial need for safe drinking water storage during flood events to stay hydrated, maintain sanitation, reduce the risk of waterborne diseases and address health issues, particularly for women and adolescent girls.

Access to health care: Access and availability of quality emergency health care services are determined by factors like facility proximity, affordability, and cultural acceptance. Quality emergency health care is crucial, focusing on prompt and efficient services for critical situations. Special emphasis is placed on maternal and child health, addressing their unique needs, and ensuring their well-being, as it significantly affects survival rates and overall health.

Dignity and GBV support: Only a small proportion of respondents mentioned dignity needs. This indicates a potential lack of awareness or emphasis on maintaining good hygiene practices during flood situations. Raising awareness of personal hygiene, particularly for adolescent girls can significantly reduce health risks during the flood.

Tailoring support preferences: While most people prefer cash assistance, about a quarter requested a mixed option. This observation suggests that certain communities faced challenges with unavailable or expensive items/services in local markets before and during flooding. Additionally, some individuals (most likely in remote locations e.g. chars) preferred receiving certain items in-kind due to cost and time considerations when accessing markets.

Emphasising market accessibility: Almost no one solely relied on in-kind support during floods, indicating that markets were accessible during past monsoon events, either within their communities or at places of temporary displacement.

Raising awareness about support services: Only 1% of respondents mentioned the need for support services. This highlights a lack of familiarity or prioritisation of services that could be beneficial during floods. Raising awareness about available services and their benefits could significantly enhance flood preparedness and response efforts.

Based on the **quantitative survey findings**, this study didn't reveal significant differences in stated needs among livelihood groups but focus group discussions illuminated variations in priorities. Understanding these nuances allows for tailored flood support interventions to meet specific community needs effectively. By adopting smart strategies to address these findings, we can fortify flood resilience, protect lives, and safeguard assets during flood events.

One of the key findings from the qualitative discussions is the **importance of household-level interventions** and their connection with community-level interventions to reinforce institutional responsibilities for more effectively protecting assets and livelihoods during disaster preparations and response actions. The study revealed that such interventions are crucial in addressing the multi-faceted risks posed by climate change-induced disasters. By implementing appropriate measures at both household and community levels, it is possible to enhance disaster preparedness and response, safeguard assets, and support livelihoods more effectively in the context of climate-related hazards.

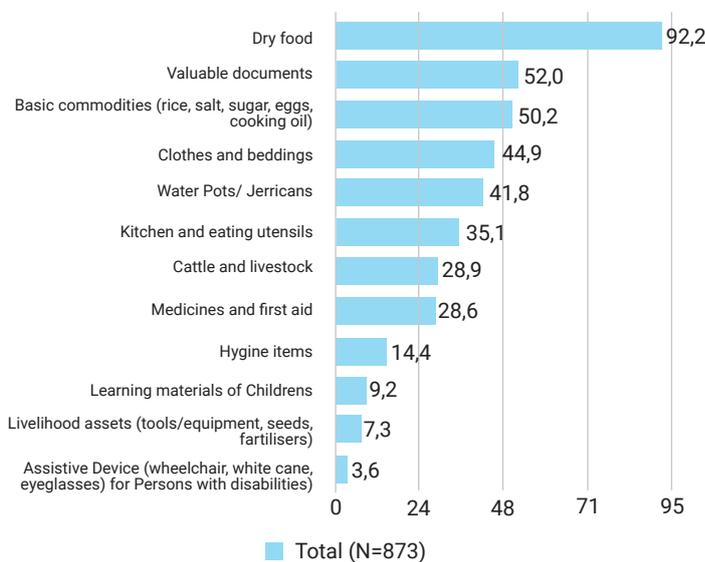


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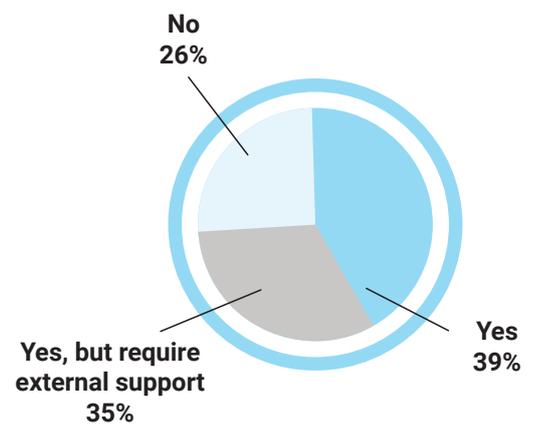
4.3 READINESS MEASURES FOR DISPLACEMENT

In Bangladesh, monsoon floods are a recurring and significant challenge, leading to the displacement of millions of households each year. Household readiness measures and being prepared for displacement by having a well-thought-out contingency plan are crucial for households to effectively cope with the impacts of flooding and minimise risks to lives, assets, and livelihoods. Households take specific items or belongings with them when shifting to temporary shelters.

Items Usually Taken to Temporary Shelter



Availability of Household Contingency Plan



Dry food and basic commodities (rice, salt, sugar, eggs, cooking oil): Most households bring dry food items, such as rice, cereals, canned goods, and dried fruits, when moving to temporary shelters to ensure access to these necessities during their stay.

Valuable documents: Approximately fifty percent of households carry important documents like Identification cards, birth certificates, land deeds, VGD cards and other crucial papers that are kept in a waterproof container to protect them from water damage.

Clothes and bedding: Almost half of the households bring clothes, bedding including blankets and sleeping mats, and mosquito nets for each family member to stay comfortable and protected from insects in the temporary shelters.

Water pots/jerricans: Approximately half of households carry water pots or jerricans to store and transport water, ensuring access to clean drinking water during their stay in the temporary shelter.

Basic kitchen utensils: About one-third of households mentioned that take kitchens and eating utensils, such as cooking pots, pans, plates, and cutlery, to prepare and consume food during the temporary stay.

Cattle and livestock: Some households bring their cattle and livestock with them to ensure the safety and well-being of their animals during the displacement. Families often move their animals to elevated structures, known as "machans," or herd them to nearby higher terrains on foot. When waters rise extensively, smaller livestock are transported via boats, while larger ones, like cattle, are carefully guided through the water alongside these vessels.

Medicines and first aid: Necessary medications, first aid supplies, and basic medical equipment are taken to address health concerns during the temporary stay.

Hygiene items: A smaller percentage of households bring hygiene items like soap, towels, and sanitary products to maintain personal hygiene and prevent the spread of diseases in crowded temporary shelter environments.

Learning materials for children: A minority of households bring learning materials for children to keep them engaged and continue learning during the displacement

Livelihood assets: Only a few households bring livelihood assets like tools, equipment, seeds, or fertilisers, which might be essential for their livelihood activities during their temporary stay. When floods occur suddenly, the primary concern is to save lives. As a result, households prioritise evacuating family members and protecting necessities like food, water, and livestock. Livelihood assets, although important, might not be the first thing people think of grabbing.

Assistive devices for persons with disabilities: A small percentage of households carry assistive devices like wheelchairs, white canes, or eyeglasses for family members with disabilities.

Other readiness measures: Besides the above items, focus group discussion (FGD) findings reveal that households prioritise taking specific items to temporary shelters, such as torchlights and batteries for illumination during power outages, communication devices like mobile phones and chargers to stay connected, sufficient cash and valuables for financial security, rain gear like umbrellas and raincoats, and baby supplies for childcare during the displacement. Some of these items such as torchlights and mobile phones are perceived as essential to ensure the safety and security of women and girls but are only prioritised based on affordability. Some mentioned relocation of pregnant women to a neighbour or relative's place that is not flooded.

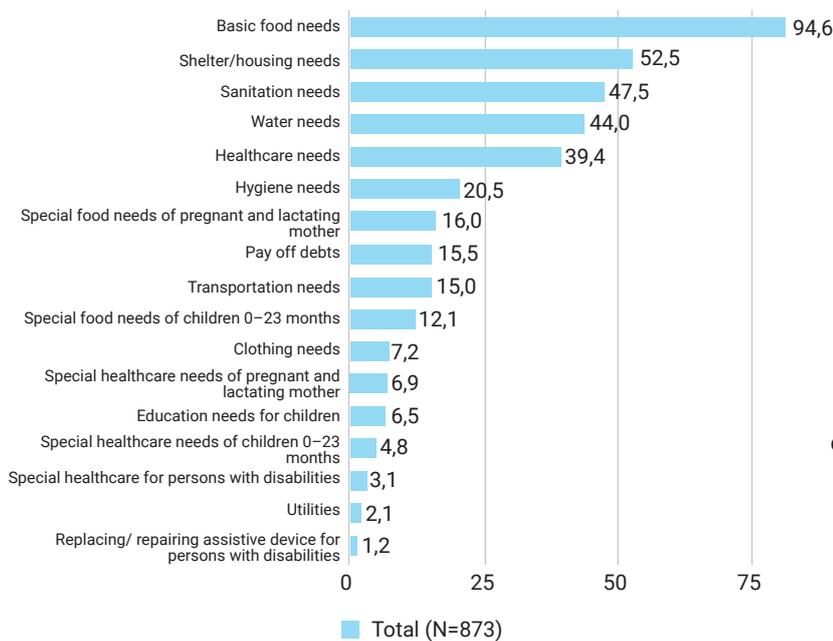
Importance of household contingency plans: A significant percentage of households have taken some level of preparedness measures, but a notable portion of respondents still lack detailed contingency plans for potential floods. This highlights the need for raising awareness about the importance of preparedness and encouraging households to develop comprehensive contingency plans.

The options are limited in terms of **household-level preparatory actions carried out before floodwaters rise to an unmanageable level** within a 5-to-3-day window. The term "unmanageable level" refers to a water level that surpasses the capacity of households to effectively cope with or mitigate the impacts of flooding.

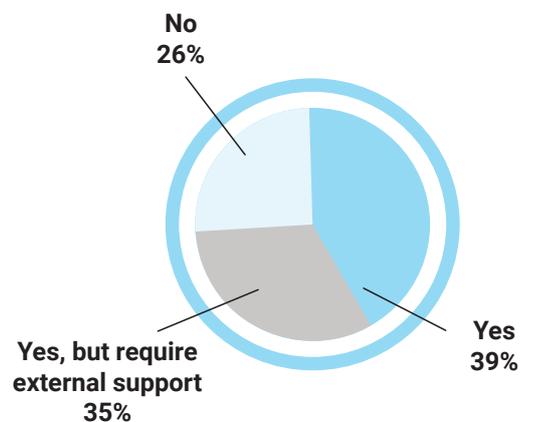
4.4 EXPENDITURE PATTERNS AND DECISION MAKING

Expenditure patterns and decision-making of flood-affected households are significantly influenced by the recurrent nature of floods in the region. As floods pose a persistent threat to livelihoods, infrastructure, and well-being, households adopt specific strategies and recover from flood-related challenges.

Household Expenditure Patterns



Household Decisions on Use of Cash



Households were asked to specify what would they prioritise spending cash for monsoon flooding. The results are grouped according to main four sectors and other relevant expenditures. The patterns in spending as per the quantitative data and decision-making of flood-affected households regarding cash assistance are as follows:

- **Food security and nutrition sector:** Most respondents (94.6%) prioritise spending cash assistance on securing basic food needs for their households. This underscores the importance of food security during and after floods to ensure the well-being and sustenance of affected families. Only a small proportion of respondents (16.0%) plan to use cash assistance to address the special food needs of pregnant and lactating mothers, highlighting the importance of awareness raising activities regarding the significance of providing adequate nutritional support to this vulnerable group during flood situations. Similarly, only a small portion of respondents (12.1%) intend to allocate cash to meet the specific nutritional requirements of children aged 0 to 23 months, emphasising the need for targeted interventions (and awareness) to safeguard the health and development of young children during and after floods.
- **Shelter and settlement:** A significant portion of respondents (52.5%) prioritise spending cash assistance on addressing their shelter and housing needs. This highlights the importance of supporting households with the few structural mitigation options they can implement before peak floods to minimise the damage to their dwellings.
- **Water, Sanitation, and Hygiene (WASH) sector:** The expenditure patterns based on the survey responses indicate that a significant proportion of respondents (44.0%) will use cash assistance to address water needs, focusing on activities like repairing water sources and establishing alternative water supply systems to ensure access to clean and safe drinking water. Additionally, nearly half of the respondents (47.5%) plan to allocate cash assistance to sanitation needs, which involve repairing or constructing latrines and improving sanitation facilities to uphold hygiene and prevent waterborne diseases. Furthermore, a fifth of the respondents (20.5%) intend to utilise cash assistance for hygiene-related items, such as purchasing soap, disinfectants, and other personal hygiene products.
- **Health sector:** The healthcare needs are a priority for a significant portion of respondents (39.4%), indicating their intention to spend cash assistance on medical expenses and access to healthcare services during and after the floods. Only a small percentage of respondents allocate cash assistance for specific healthcare needs, such as pregnant and lactating mothers (6.9%), infants and young children aged 0–23 months (4.8%), and persons with disabilities (3.1%).
- **Other expenditure patterns:** A portion of respondents intends to use cash assistance for other purposes. Paying off existing debts is a priority for 15.5% of respondents, which may have been accumulated due to flood-related expenses or other factors. Additionally, 15.0% of respondents plan to allocate cash assistance for transportation needs, such as travel costs to safer locations or accessing essential services. Furthermore, 6.5% of respondents will use cash assistance to support the educational needs of their children, covering expenses such as school supplies or educational costs.

The findings in this section align with the household mitigation measures mentioned earlier, and insights from the FGDs suggest some correlations between these expenditure categories. For example, basic food needs likely involve stocking up on food supplies, while shelter needs may imply structural improvements like raising plinths. The categories of sanitation, water, and healthcare are likely related to items chosen for the temporary shelter. Further analysis and expansion of these findings are needed. Additionally, there are no significant differences in mitigation measures based on livelihood groups.

In many rural households in Bangladesh, traditionally, financial decisions are predominantly made by the male spouse or the head of the family, encompassing the utilisation of cash assistance received from aid organisations or government support. The male spouse typically holds greater authority in managing household finances, budgeting, and setting spending priorities.

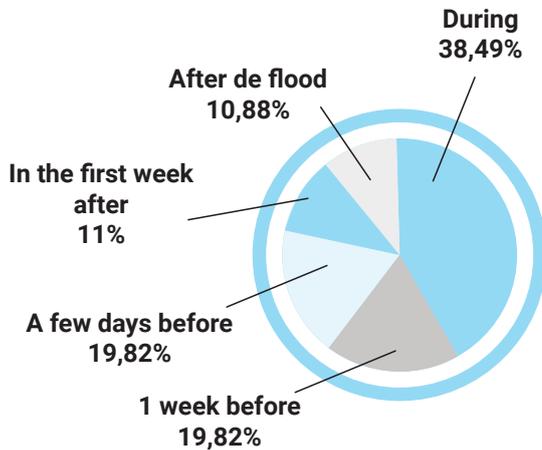
Nevertheless, the survey reveals a positive shift towards more collaborative and inclusive decision-making is observable in some households. Joint decision-making, involving both spouses and sometimes other adult family members, is gaining prominence. The majority of respondents indicated that cash usage decisions are made jointly within their households. In a smaller proportion of households, the female spouse plays a dominant role in determining cash usage.

This trend indicates a transition towards more inclusive and participatory decision-making processes, where various family members have a voice in determining how cash assistance is utilised. While traditional gender roles and hierarchical decision-making persist in some areas, the evolving landscape shows positive strides toward more equitable involvement of family members in financial discussions and planning.

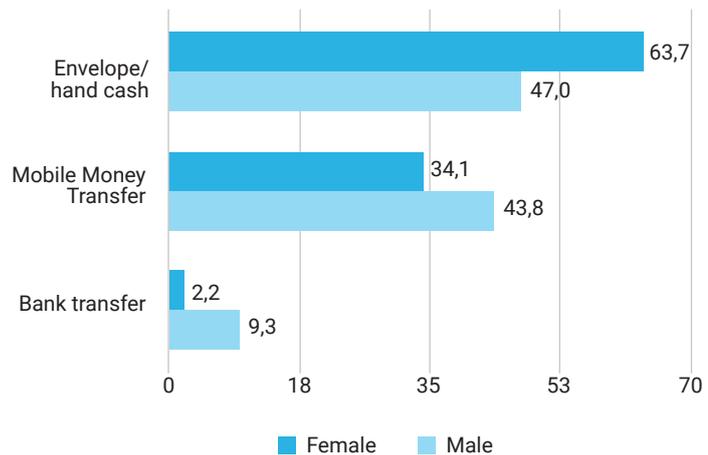
4.5 CASH PREFERENCES AND CONCERNS

Anticipatory action and response play a crucial role in disaster preparedness and response, particularly in the context of monsoon floods in Bangladesh. Cash assistance is an effective tool for providing timely support to vulnerable households. Understanding the time preference and selecting appropriate delivery mechanisms for cash assistance is essential for enhancing the effectiveness of anticipatory actions and response efforts during floods. Below are the key findings and considerations:

Preference Timeline for Receive Cash Assistance



Preference of Modalities Receiving Cash Assistance



Early cash disbursement: Anticipatory action requires early disbursement of cash assistance to vulnerable households in flood-prone areas. Timely financial support before the onset of floods allows families to take proactive measures such as purchasing essential supplies, reinforcing shelters, and moving to safer locations. The respondents were asked to indicate when they believe cash assistance would be most useful for their households in the context of monsoon floods. The percentages corresponding to each option are as follows:

- During:** 38.5% of the respondents stated that cash assistance would be most useful during the flood itself. This indicates that a significant portion of households believe that using financial support while they are displaced and facing the immediate impacts of the flood is crucial for meeting urgent needs and coping with increased prices in local markets.
- 1 week before or A few days before:** Around 40% of the respondents expressed that cash assistance would be most beneficial when provided a 1 week before or a few days before the expected flooding. This response suggests that a notable number of households recognise the importance of early preparations and having access to financial support in advance. One week before the flood, families can use the cash to make necessary arrangements and preparations to better cope with the impending disaster.

-
- **In the first week after or after receding the floodwater:** Approximately 22.0% of the respondents indicated that cash assistance would be most useful in the first week after the flood has occurred or after the floodwater has receded. This could be correlated with the 'usual' experiences of households in past flood events, as they remember receiving a form of support after. This finding could also imply either that they perceive themselves to not be very vulnerable or they perceive that taking mitigation options ahead of the flood is not as effective as just coping with the flood.

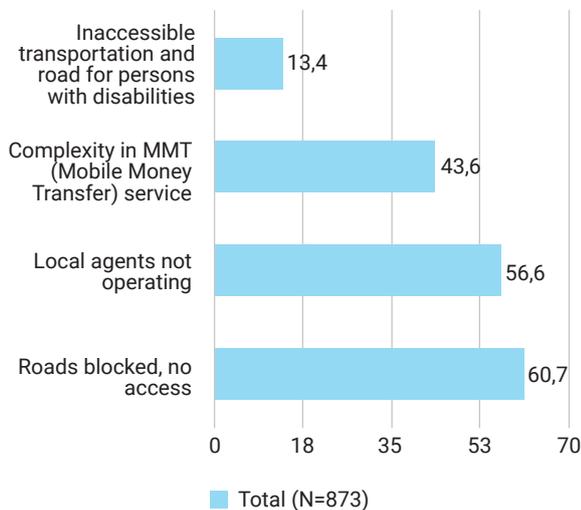
The findings also highlight the diverse preferences of different livelihood groups for receiving cash assistance during the flood context. While some beneficiaries prefer assistance before or after the flood, a significant proportion recognises the importance of receiving cash during the actual flood period to meet immediate needs. Understanding these preferences can guide the design and implementation of cash assistance programs that cater to the specific needs and circumstances of different livelihood groups in flood-affected areas.

- **Delivery mechanisms for cash transfers:** These refer to the different channels through which cash assistance is provided to beneficiaries. These are selected to ensure that financial support reaches the intended recipients efficiently and securely. The survey findings highlight that both male and female respondents foresee various challenges in accessing cash through different methods in their community before and after the flood.
- **Bank transfer:** The data indicate that a higher percentage of male beneficiaries (9.3%) prefer receiving cash through bank transfers compared to female beneficiaries (2.2%) which can provide a glimpse regarding the level of financial inclusion in the formal banking sector.
- **Mobile Money transfer/transfer through post office:** The preference for mobile money transfer is higher among both male (43.8%) and female (34.1%) respondents. This modality seems to be popular among both genders, likely due to its convenience and accessibility, especially in areas with limited banking infrastructure.
- **Envelope/hand cash:** Female beneficiaries (63.7%) show a stronger preference for receiving cash through envelope/hand cash compared to males (47.0%). This indicates that more women prefer to receive physical cash directly, either through distributions at designated centres or door-to-door delivery. Several FGDs revealed that this preference is also because they want to minimise the risks of fraud, which apparently is prevalent in some of the communities where people receive phone calls from individuals who convince them to give them their security information and then manage to take the money from their accounts.

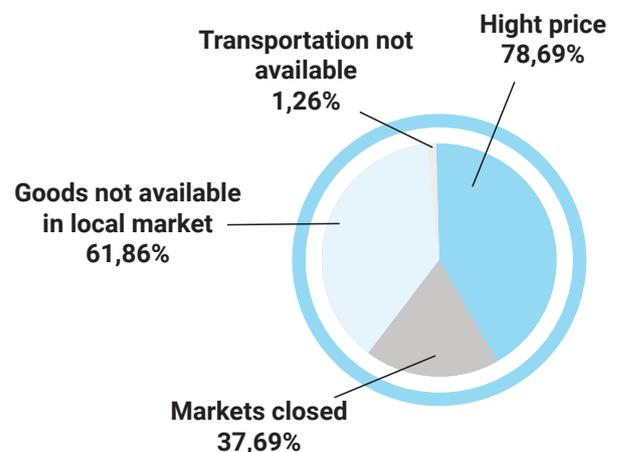
4.6 ACCESSING AND USING CASH ASSISTANCE

Monsoon floods are recurring disasters that affect millions of households each year in Bangladesh, leading to displacement, damage to property, and disruption of livelihoods. Cash assistance plays a crucial role in helping affected communities meet their immediate needs, rebuild their lives, and enhance their resilience during and after the floods. Accessing and using cash assistance is a critical aspect of anticipatory and post-disaster cash response.

Foresee Any Issues in Accessing Cash Before or After Flood



Foresee Any Issues in Using Cash Before or After Flood



Accessing cash assistance: Respondents were asked whether they foresee any issues in accessing cash in their community, both before and after the flood. The percentages for each access issue are as follows:

- **Roads blocked, no access:** 60.7% of the respondents foreseen issues with accessing cash due to blocked roads or lack of access.
- **Local agents not operating:** 56.6% of the respondents expressed concerns about local agents not operating. This issue pertains to mobile money transfer (MMT) services or other cash disbursement agents not functioning or being available during or after a flood.
- **Complexity in MMT (Mobile Money Transfer) service:** More than 40% of individuals express a preference for MMT services, suggesting its perceived benefits. This inclination doesn't necessarily mean ease of use; some might favour it even amidst its challenges due to its inherent advantages. On the other hand, 43.6% describe MMT services as complicated, with potential reasons ranging from digital literacy barriers to user interface challenges, technical issues, and cultural or educational influences.

These findings shed light on the potential challenges and barriers that beneficiaries may face in accessing cash assistance in the community before and after the flood. The results emphasise the importance of addressing infrastructure constraints, ensuring the functionality of cash disbursement agents, providing user-friendly digital services, and making cash assistance accessible to all members of the community, including those with disabilities.

Through the FGDs, limited coverage of the Government's ongoing safety net programmes – particularly the cash-based vulnerable group programmes (elderly allowance, allowance for widows etc.).

Using Cash Assistance: Respondents were asked whether they foresee any issues with using cash in their community, both before and after the flood. The percentages for each usage issue are as follows:

- **High price:** 78.7% of the respondent's express concerns about the high prices of goods and services. During and after the flood, scarcity of supplies and increased demand can lead to price hikes.
- **Goods not available in the local market:** 61.9% of the respondents mention that certain goods may not be available in the local market.
- **Markets closed:** 37.7% of the respondents foresee issues with using cash because of closed markets during or after the flood.
Transportation not available: Only 1.3% of the respondents foresee issues with transportation not being available.

It is essential to consider beneficiaries' preferences when designing cash assistance programs, as it can significantly impact the effectiveness and acceptance of the assistance provided. Implementing various modalities based on beneficiaries' preferences and local context ensures that cash assistance reaches those in need efficiently and is utilised effectively to meet their immediate and long-term needs in times of crises or disasters.



5. RESPONSE PHASE: NEEDS AND COPING TACTICS

Analytical Questions

What are households' priority needs after the flood?

What are their preferences for assistance?

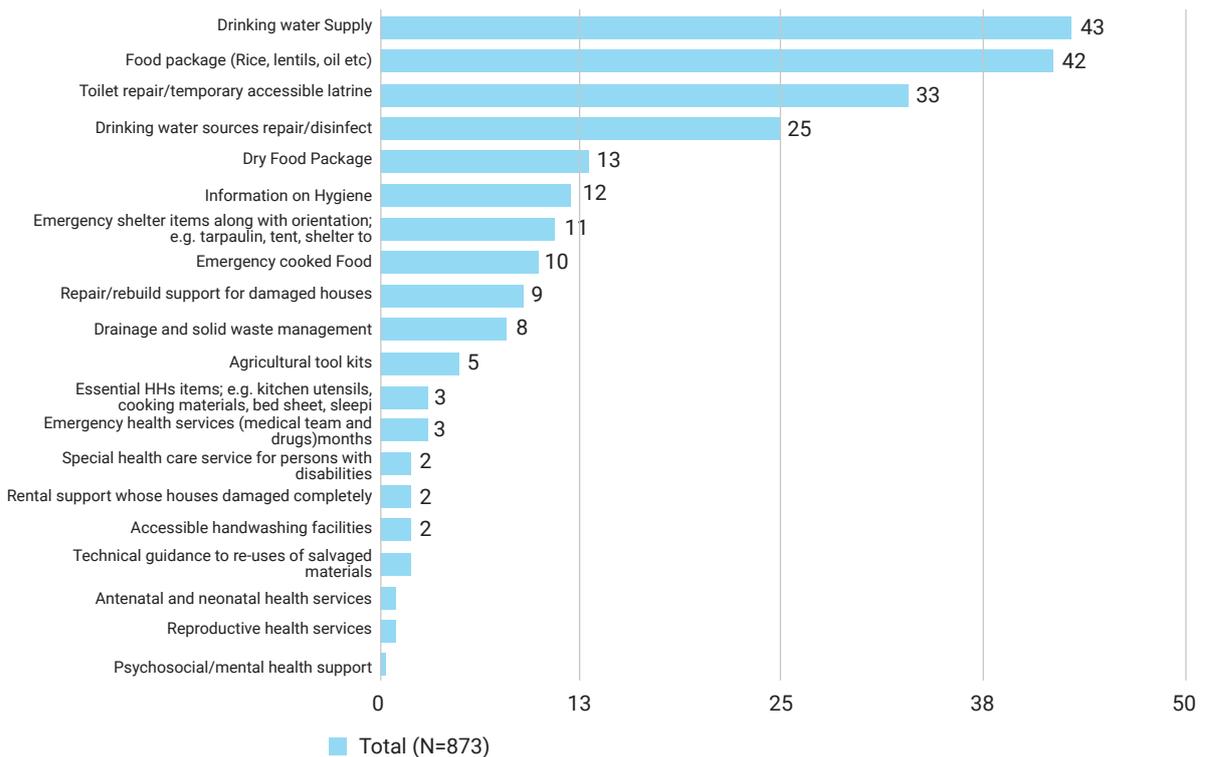
What are their long-term concerns regarding the impact of monsoon flooding?

5.1 IMMEDIATE NEEDS AND PRIORITIES

Respondents were asked to think of previous flood events and based on their experiences to outline their immediate needs during peak floods and in the following weeks when they either temporarily relocated or remained in their communities.

Priority needs refer to the most urgent and critical requirements identified by a community or group after experiencing a particular event or crisis and are essential for guiding response and recovery efforts. Responding to these needs promptly and effectively can significantly contribute to the community's well-being and recovery.

Household Member Post-Flood Immediate Needs



The top five needs identified based on the survey responses after the post-monsoon floods are as follows:

- **Drinking water supply:** Usurprisingly ensuring a continuous supply of safe drinking water emerged as the highest priority need including the need for safe storage.
- **Food package (rice, lentils, oil, etc.):** Providing food packages containing essential items such as rice, lentils, and oil was identified as a top priority. Addressing immediate food insecurity and hunger is critical to ensure the basic nutrition and health of the affected individuals and families.
- **Toilet repair/temporary accessible latrines:** Repairing toilets and providing temporary accessible latrines ranked high on the list of needs. Proper sanitation facilities are vital to maintain hygiene and prevent the spread of diseases, especially in the aftermath of floods.
- **Repair/disinfection of drinking water sources:** The need for repairing and disinfecting drinking water sources was another significant priority. Ensuring access to clean and safe drinking water is essential to prevent waterborne diseases and safeguard the health of the community
- **Dry food package:** Providing standardised dry food packages, which include various non-perishable food items, was considered an important need but for a limited number of respondents. These packages can help maintain an adequate level of sustenance to the affected population during the immediate post-flood period particularly for the displaced people located in temporary shelters, or for locations where markets are impacted. The use of this modality, however, should be prioritised based on market analysis and if the results show they are not available in local markets.

While some needs feature much less in the survey answers for various reasons such as perceived as 'normal', cultural reasons, or less familiar terminology for the respondents they remain relevant for safeguarding lives and livelihoods and should be included in post-flood needs assessments. These needs include psychosocial/mental health support, reproductive health services, antenatal and neonatal health services, technical guidance on re-using salvaged materials, accessible handwashing facilities, rental support for completely damaged houses, special health care service for persons with disabilities, emergency health services (medical team and drugs), essential household items, agricultural tool kits, drainage and solid waste management, repair/rebuild support for damaged houses, emergency cooked food, emergency shelter items with orientation, and information on hygiene.

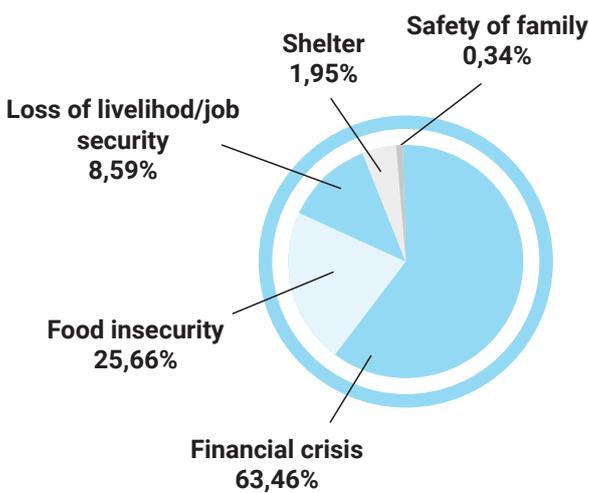


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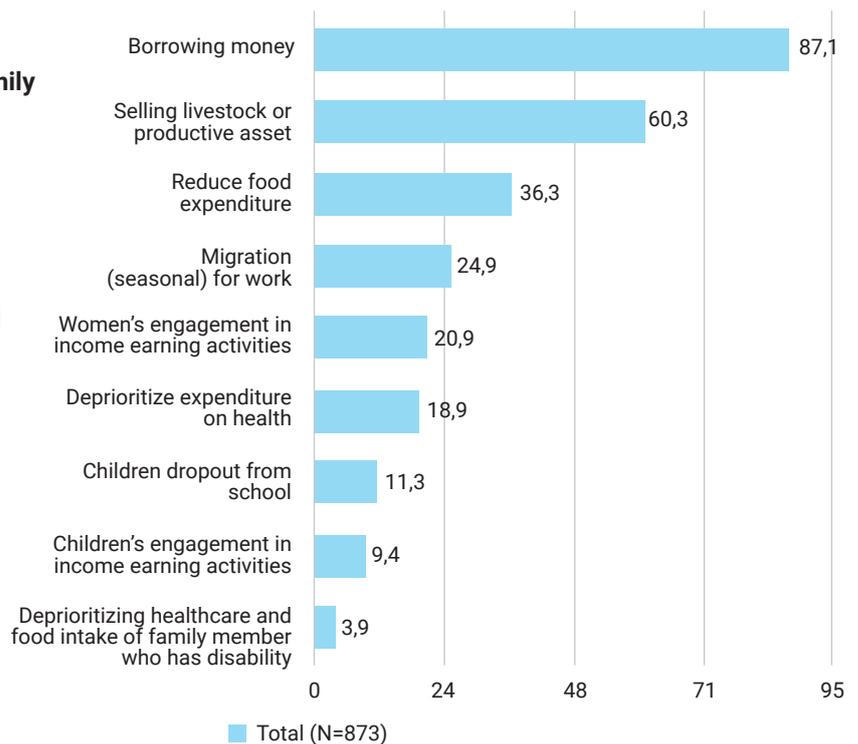
5.2 CONCERNS AND COPING TACTICS

Households were surveyed regarding their long-term concerns and coping strategies in the event of a large-scale monsoon flood occurring in the current season.

Pressing Post-Flood Concern



Usual Coping Strategy



-
- **Primary concerns:** Over 60% of respondents mentioned financial deficits as their primary concern. This aligns with their preference for cash-based assistance and the coping tactics they employ. Approximately a quarter of respondents expressed concerns about food security, which can be attributed to temporary price increases in the first few weeks after the flood and the longer-term financial deficits they face. Encouragingly, less than 10% of respondents worry about the long-term impact on their livelihood or employment due to floods. Surprisingly, there is very little concern regarding the structural integrity of houses, which requires further exploration.
 - **Negative coping tactics:** The negative coping tactics mentioned by respondents are closely linked to their concern about financial crises. These tactics are aimed at obtaining cash and reducing expenditure, which could exacerbate poverty in the medium term. The impact of floods on children's education, specifically dropout rates, requires further analysis as was mentioned in the data.
 - **Coping tactics among livelihood groups:** The differences in negative coping tactics between livelihood groups are generally not significant, except for the practice of selling livestock or productive assets, which is more prevalent among farmers compared to fisherfolk. The practice of daily labourers selling livestock or productive assets needs further clarification, as it may involve farmers who work on others' farms for daily wages.

Overall, the data indicates that financial deficits and food security are the primary concerns of flood-affected households. The negative coping tactics employed by households to address these concerns warrant attention to prevent potential long-term impacts on poverty levels. Further analysis is required to understand the specific impact on children's education and the nuances of coping strategies among different livelihood groups.

6. INFORMATION NEEDS AND COMMUNITY ENGAGEMENT

Analytical Questions

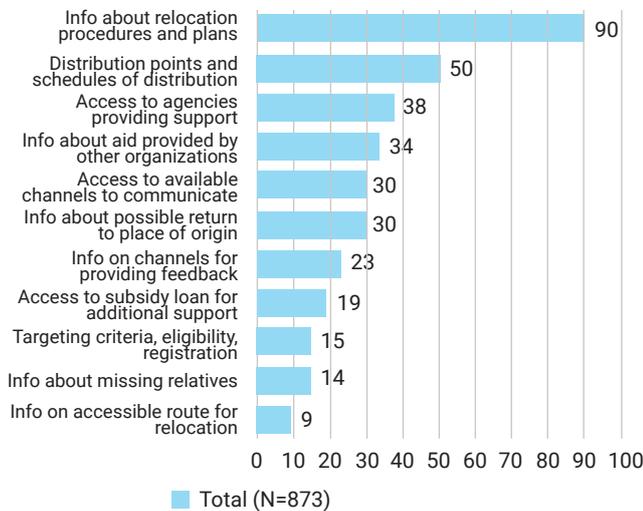
What is the information needs and preferred channels of households at-risk of monsoon flooding?

How can information provision be improved to better meet their needs?

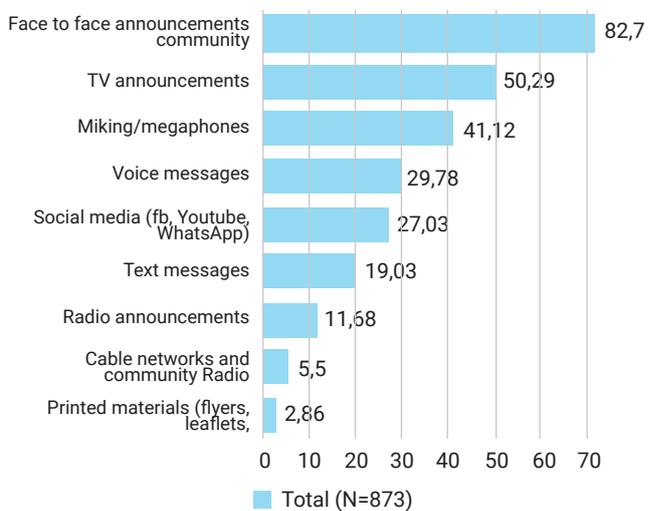
6.1 INFORMATION NEEDS AND PREFERRED CHANNELS

Respondents were asked to think of previous flood events and based on their experiences to outline their information needs and preferred channels for accessing the information.

Priority Information Needs in Time of Flood



Prefer Channel of Access Information



Most respondents expressed **'relocation'** as their primary information need during flood events, highlighting the significance of addressing temporary displacement. This emphasises the requirement for coherent and predictable local-level solutions that involve collaboration with local authorities. In line with the HCTT nexus strategy, an area-based DMC coordination model is promoted, which includes the identification of safe relocation sites or designated shelters. Local authorities play a crucial role in coordinating and managing the relocation process while ensuring the availability of essential resources. Efforts should focus on immediate and long-term solutions, such as resilient infrastructure, early warning systems, and community-based disaster risk reduction measures.

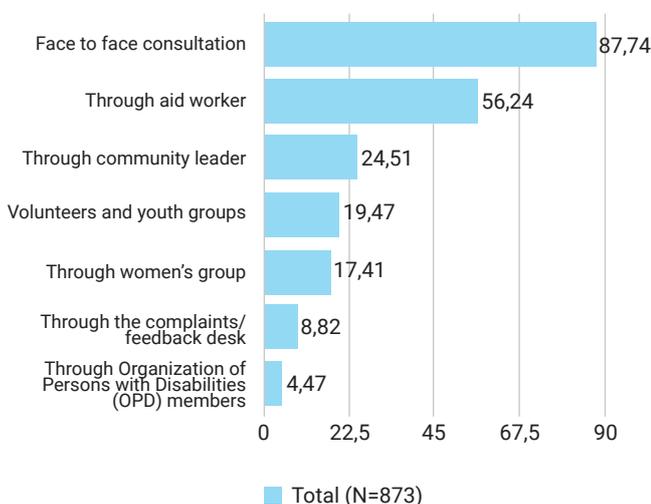
Information on relocation may encompass aspects such as relocating households along with livestock, procedures for compensation, and local-level plans for flood risk reduction and climate change adaptation. The fact that only half of the respondents indicated the need for information about available assistance could imply their resilience, limited usefulness of previous assistance, or frequent contact with local organisations and authorities who provide assistance and are familiar with the process.

Given that high-risk communities often consist of small settlements in close proximity, it is unsurprising that face-to-face announcements are the most familiar method among the interviewed population. These community-level announcements are disseminated in local mosques or community meetings. The preference for face-to-face discussions over megaphone announcements, indicated by over 80% of respondents, suggests a strong level of community cohesion in terms of planning for impending floods. This signifies active community engagement and a desire for meaningful dialogue rather than just receiving alerts, indicating a proactive approach to flood preparedness and a sense of collective responsibility within the community.

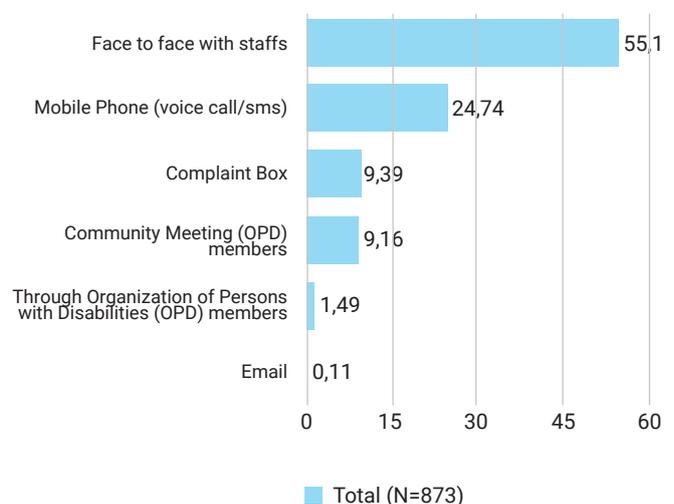
6.2 PREFERRED METHODS OF CONSULTATIONS AND REPORT COMPLAINS

Community consultation and feedback are integral to promoting participatory and inclusive governance, planning, and development. By actively engaging with the community, decision-makers can better understand the complexities of local contexts, address concerns, and create sustainable solutions that align with the needs and aspirations of the people they serve. This section identifies the preferred methods of community consultations for the project design phase pre-crisis, as well as the process monitoring and feedback mechanism during implementation and evaluation.

Prefer Method of Consultation for Assistance



Prefer Channel of Report Complain



Despite significant mobile phone coverage and digital literacy (170m mobile phone users) among the people living in high-risk areas, the high percentage of respondents favouring face-to-face consultation suggests that personal engagement and direct communication are highly valued. This approach allows for a deeper understanding of individual needs and concerns, fosters trust, and creates a more inclusive and participatory process.

Many respondents prefer to be consulted directly by aid workers and local authorities who are on the ground and directly involved in providing assistance. Community leaders play a crucial role in representing their communities and can act as intermediaries between the community and assistance providers. Approximately 25% of respondents mentioned 'community leader' as their preferred channel for community consultation, which can be attributed to the political context in each upazila/union.

Engaging with volunteers and youth groups can effectively reach out to young individuals and empower them to voice their needs and ideas. Women's groups can be valuable platforms for consultation, particularly for addressing gender-specific issues and ensuring that women's perspectives are taken into account. Some individuals with disabilities may prefer to be consulted through representatives from the Organisation of Persons with Disabilities, as they can better understand and advocate for their specific needs and concerns.

Understanding the community's preferences for communication channels to report complaints is essential for designing effective feedback mechanisms. By offering diverse channels and emphasising face-to-face engagement, organisations can ensure that community members' voices are heard, leading to improved services and responsive solutions that address the community's needs and concerns and increase their trust and confidence in the complaint response mechanism.

- **Face to face communication:** Face-to-face interaction with staff is the overwhelmingly preferred method for reporting complaints. This preference suggests that individuals feel more comfortable discussing their concerns directly with staff members and believe it to be an effective way to seek resolutions.
- **Mobile phones for complaints and feedback:** Only about a quarter of respondents seem to prefer mobile phones, in the form of voice calls or SMS, as a communication channel for reporting complaints. This indicates that mobile technology plays a role in facilitating community feedback but should not be prioritised over face-to-face engagement, especially for recording complaints, requests for support, or detailed feedback about assistance.
- **Inclusivity through community meetings:** Community meetings organised by the OPD are seen as an inclusive platform for sharing grievances, particularly for individuals with disabilities. Such meetings offer opportunities for collective engagement and representation.

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- **Anonymity via complaint boxes:** The use of complaint boxes can provide a way for community members to express concerns anonymously. Their use however seems to be limited so an alternative anonymous method of feedback should be developed with at-risk communities if anonymity is deemed a critical aspect.

Community consultation and feedback are integral to promoting participatory and inclusive governance, planning, and development. By actively engaging with the community, decision-makers can better understand the complexities of local contexts, address concerns, and create sustainable solutions that align with the needs and aspirations of the people they serve.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 RISK PERCEPTION AND EARLY WARNING

Improve understanding of risk: Just over half of the respondents consider themselves vulnerable to monsoon floods. Disaster risk communication should address the perception of vulnerability and the importance of adaptation strategies. Awareness campaigns should promote the adoption of adaptive tactics and build on the existing resilience of the community to enhance disaster preparedness and response.

Improve early warning alert: Approximately one-third of the respondents receive early warning alerts five days in advance of a monsoon flood, providing them with a reasonable time-frame to prepare. Investments should be made in improving impact-based early warning systems to ensure comprehensive and timely information dissemination. The focus should be on community-level dissemination to reach households that do not receive the initial alerts, and information should be detailed and actionable to enable effective flood preparations.

Build trust in early warning system: Approximately a quarter of the respondents have little to no trust in early warnings, but community consultations indicate that some level of trust exists. Efforts should be made to build trust in early warning systems through transparent and credible communication. Integrating indigenous knowledge into early warning systems can enhance accuracy and relevance, encouraging households to take early warnings seriously and respond effectively.

7.2 HOUSEHOLD PREPAREDNESS AND ANTICIPATORY ACTION

Enhance awareness of mitigation measures: An **estimated 75% of households** demonstrated awareness of flood mitigation measures. Various structural and preparatory measures are employed by households to manage flooding events. The most popular method, utilised by 78.1% of households, was raising the plinth of homesteads. Efforts should be made to further improve awareness and understanding of mitigation measures for flood resilience. Community-based training and awareness programs can educate households on effective structural and non-structural measures to protect themselves and their assets during floods. Promote the sharing of best practices and techniques amongst communities to increase the adoption of effective mitigation measures. Focus on the provision and maintenance of structural adaptations, such as the elevation of homesteads, latrines, and tubewells, given their high adoption rates.

Increase investments for risk reduction and resilience: A significant proportion of the at-risk population resides in 'kutcha' houses, which are vulnerable to damage and destruction during floods. These houses lack resilience, posing an immediate danger to inhabitants and leading to homelessness, heightening vulnerability, and dependence on humanitarian assistance. Efforts should be made to promote resilient housing solutions, including safe construction materials including disability access techniques, to minimise the impact of floods. However, due to financial crises, people are not concerned about the damage to their houses due to

floods. Investments in resilience infrastructure, early warning systems, and livelihood diversification initiatives are essential to enhance resilience against flood impacts. Furthermore, interventions to strengthen gender-responsive and inclusive health services and educational facilities in flood-prone areas will help reduce the impact of floods and lessen the dependence on humanitarian aid. **Cash+** interventions should consider the **specific needs and priorities of households**, that build resilience capacity addressing gender and inclusion.

Promote inclusive decision-making: Household expenditure patterns are highly influenced by the recurrent nature of floods, with prioritisation given to wash, food security and nutrition, shelter, and non-food items (NFI), and health. Decision-making is transitioning from traditionally male-dominant roles to more collaborative and inclusive practices, involving multiple family members in financial planning and expenditure prioritisation. Continue promoting collaborative and inclusive decision-making processes within households, considering the evolving nature of gender roles and household management.

Support for financial resilience: The primary concerns of households revolve around financial deficits (60%) and food security (25%). Negative coping tactics aimed at acquiring cash and reducing expenditure may exacerbate medium-term poverty levels. Design interventions that provide immediate financial relief and simultaneously promote long-term economic stability. Develop nuanced, livelihood-specific strategies to mitigate the adverse effects of negative coping tactics, particularly asset depletion.

Strengthen livelihood diversification: 92.2% of respondents emphasised the critical need for food before floods, taking into account chronic unmet needs and negative coping tactics. Respondents highlighted the importance of stockpiling essential food items in advance and immediate requirements after evacuation. Implement food security and livelihood programs to address chronic unmet needs and promote stockpiling essential food items before floods occur. Prioritise vulnerable households and those living in flood-prone areas to ensure equitable access to nutritious food during and after flood events.

Promote resilient housing: Almost everyone recognised the significance of shelter support before floods, with 75% of respondents taking preparatory measures and implementing structural changes. However, a significant portion of households lacks formal contingency plans for potential floods. Provide financial incentives or grants for flood-resistant construction or retrofitting in flood-prone areas.

Develop household contingency plan: The findings indicate that a considerable number of households in Bangladesh are taking readiness measures for displacement caused by monsoon floods. While a significant percentage of households have taken some level of preparedness measures, a notable portion still lacks detailed household-level contingency plans for potential floods. Launch awareness campaigns to educate households about the importance of preparedness and the need for comprehensive contingency plans. Providing information on

the specific items to bring and how to create effective plans can significantly improve readiness. Encourage community engagement in disaster preparedness by organising workshops, drills, and training sessions. This approach can foster a sense of collective responsibility and strengthen community resilience.

Strengthen Evacuation Strategy: During this critical timeframe, households have limited options to prepare for the impending floodwaters. Develop evacuation strategies to protect livelihood assets during displacement, such as establishing safe relocation sites for livestock and providing support for families engaged in agriculture or other income-generating activities.

Implement cash+ approach: Monsoon floods have caused damage and destruction in three main categories: life, assets, and the environment. Floods have resulted in damage to 96.33% of houses, 78.47% of livestock losses, and 71.59% of crop damages. Identify and provide targeted Cash+ to vulnerable households and specific vulnerable individuals, including those with persons with disabilities and limited resources, to ensure they have access to necessary items and resources during displacement.

Link community-level interventions: The options are limited in terms of household-level preparatory actions carried out before floodwaters rise to an unmanageable level within a 5-to-3-day window. The importance of household-level interventions and connection with community-level interventions to reinforce institutional responsibilities for effectively protecting assets and livelihoods during disaster preparedness and response actions in the face of disasters caused by climate change. The study revealed that such interventions are crucial in addressing the multi-faceted risks posed by the flood. By implementing appropriate measures at both household and community levels, it is possible to enhance disaster preparedness and response, safeguard assets, and support livelihoods more effectively in the context of climate-related hazards.

7.3 RESPONSE PHASE: NEEDS AND COPING TACTICS

Strengthen community engagement for preference and needs: Respondents identified their top five needs in floods are drinking water supply (43%), food package (42%), toilet repair/temporarily accessible latrines (33%), repair/disinfection of drinking water sources (25%), and dry food package (13%). While some priority needs received less attention, they remain essential for the well-being and recovery of the affected population after the floods. These include psychosocial/mental health support, reproductive health services, GBV services, technical guidance, emergency health services, essential household items, agricultural tool kits, repair/rebuild support for damaged houses, and more. Maintain a continuous engagement with the community beyond the immediate post-disaster period. This will facilitate sustainable solutions that align with the community's long-term aspirations and needs.

7.4 INFORMATION NEEDS AND COMMUNITY ENGAGEMENT

Improve access to information: A majority of respondents identified "relocation" as their primary information need during flood events. Improve communication regarding relocation, assistance, and flood risk reduction plans. Develop clear and accessible information channels to address the needs of affected communities and promote a better understanding of available support. The most preferred method of communication for disaster-related announcements is face-to-face, preferred by over 80% of respondents. It is important to reinforce local-level communication via face-to-face announcements in mosques and community meetings, and through other gender-inclusive spaces particularly for women and transgender to disseminate flood-related information effectively and promote preparations ahead of the flood.

Strengthen consultations and feedback mechanisms: Despite significant mobile phone coverage (170m connections), the majority of respondents prefer face-to-face consultations. This approach allows for a deeper understanding of individual needs, fosters trust and creates a more inclusive effective and meaningful participatory decision-making process. Efforts should be made to develop consultation processes that allow for direct, individual engagement, via local organisations civil society representatives, and local authorities. This could include consultations with community leaders, local government, volunteer and youth groups, women's groups, and ensuring mechanisms are in place to include persons with disabilities.

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For additional information, please contact:
Kazi Shahidur Rahman, Humanitarian Affairs Specialist, kazi.rahman2@un.org
Office of the UN Resident Coordinator Office, Bangladesh