



RESEARCH BRIEF

ENHANCING CLIMATE COMMUNICATION FOR COMMUNITIES IN BANGLADESH:

Understanding How People Experience Climate
and Use Weather Information



This briefing summarises key findings from a survey of 3500 people, five community discussions, 28 focus groups and 25 depth interviews into people's experience of climate change and their use of weather and climate information services (WCIS) in Bangladesh.

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CONTEXT

Bangladesh ranked ninth globally¹ for climate disaster risk in 2023, and remains highly vulnerable, with up to 13.3 million people projected to be displaced internally by 2050². Extreme weather events severely impact livelihoods, particularly through damage to agriculture, livestock, and income loss^{3,4}. The country has taken major steps to build resilience through infrastructure, climate-smart agriculture, early warning systems, and national adaptation planning. However, WCIS⁵ are not yet fully accessible to communities.

BBC Media Action, with funding support from the Norwegian Agency for Development Cooperation (NORAD), is responding to this urgent need to improve weather and climate information communication reaching the last mile users with timely, relevant and reliable weather and climate information and encouraging them to take positive actions to prepare and respond to the impacts of extreme weather events.

RESEARCH APPROACH

I Mixed method study with people aged 18 years or above

The research was conducted to understand:

- » Use of, perception towards, and barriers to existing WCIS
- » Information needs and preferences for weather communication
- » Perceptions, adaptation strategies, and barriers around weather and climate change
- » Media access and usage among the community people

Qualitative Phase

From August to October 2024, community discussions, focus groups, key informant and in-depth interviews were conducted with more than 350 community people, journalists, frontline personnel, NGO practitioners and government officials in Cox's Bazar, Satkhira, Sunamganj, and Kurigram.

Quantitative Phase

In December 2024, a nationally representative face to face survey was conducted with 3,500 individuals from 30 districts across all eight divisions.

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1. WorldRiskReport 2023. Retrieved from: https://weltrisikobericht.de/wp-content/uploads/2023/10/WRR_2023_english_online161023.pdf
 2. World Bank Group (2022), Country Climate and Development Report for Bangladesh. Retrieved from: <https://openknowledge.worldbank.org/server/api/core/bitstreams/6d66e133-e49d-5ad9-b056-7b1a6c6206ed/content>
 3. ICCCAD and BUET. (2024). Climate change impacts in Bangladesh: WHAT CLIMATE CHANGE MEANS FOR A COUNTRY AND ITS PEOPLE. Retrieved from: https://www.icccd.net/wp-content/uploads/2024/02/Bangladesh_Final_Covers_26-Jan-2024_ONLINE_compressed.pdf
 4. BBC Media Action (2023). Case study: How are people coping with climate change locally?. Retrieved from: <https://www.bbc.co.uk/mediaaction/documents/bangladesh-lla-case-study-gca.pdf>
 5. Based on the definition of the World Meteorological Organisation, "Weather and Climate Information Services prepare users for the weather they will actually experience. Climate services provide climate information in a way that assists decision making by individuals and organisations. Such services require appropriate engagement along with an effective access mechanism and must respond to user needs." <https://wmo.int/media/magazine-article/what-do-we-mean-climate-services>

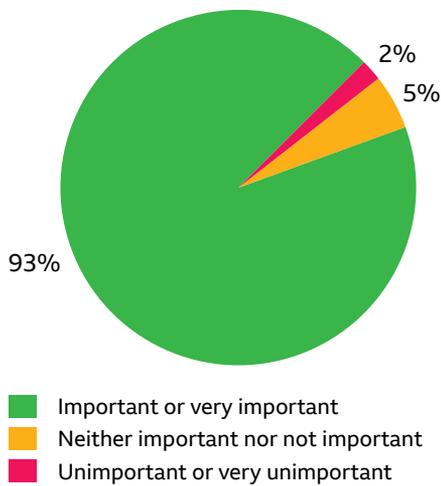
KEY INSIGHTS FROM THE STUDY

I WCIS information and communication

People recognise the importance of checking weather forecasts, but they rarely do so on a daily basis or discuss them frequently with others

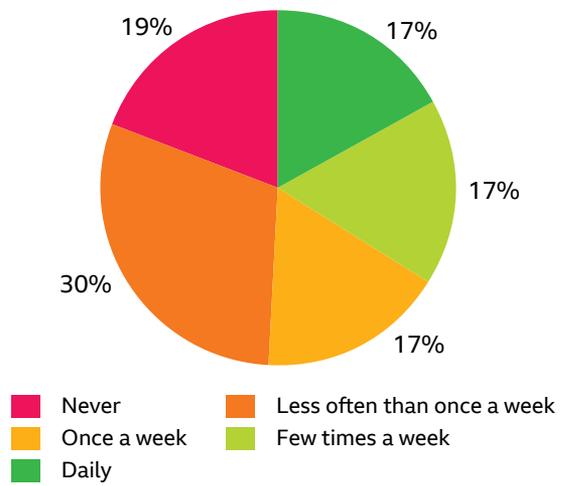
The majority of respondents (93%) feel that checking the weather forecast is important. However, only 34% of them reported checking the weather forecast daily or a few times a week, and 19% never checked it at all. Men are more interested in weather forecasts than women – they check the forecasts more often and discuss them more frequently than women.

Figure 1: Importance of checking weather forecasts



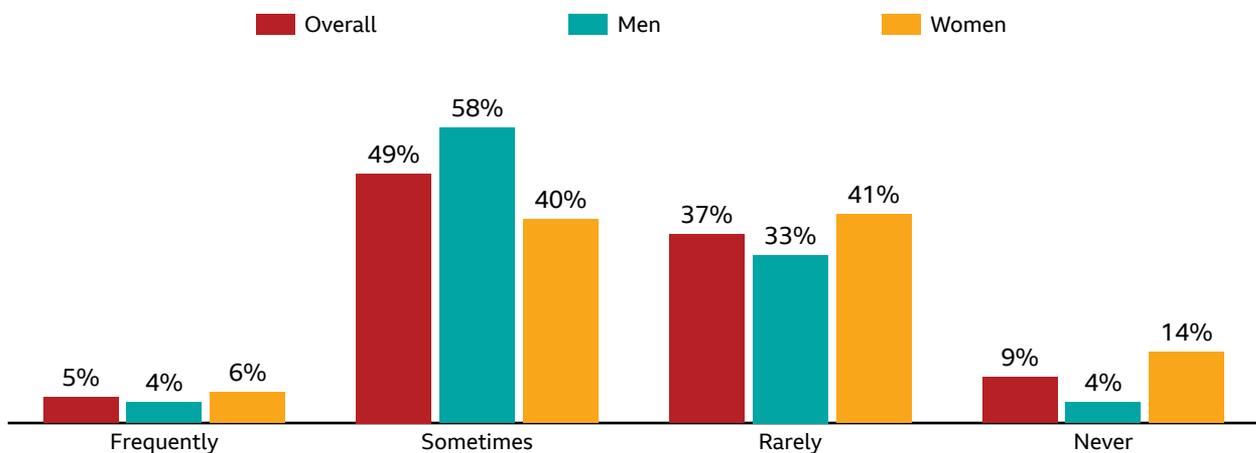
Q. How important is it to you to check the weather forecasts? Base: 3498

Figure 2: Frequency of checking weather forecasts



Q. How often do you read, watch or listen or check to the weather forecast for your local area? Base: 3488

Figure 3: Discussion about weather forecasts



Q. How often do you discuss the weather or weather forecasts with friends, family members or other people? Do you discuss it frequently, sometimes, rarely or never? Base: 3497

Whilst people feel that checking weather forecasts is important, they do not check them as much, partly because they perceive them as unreliable or of poor quality

“ We do not get information that rain will continue for the next one or two weeks. Sometimes we get information related to rainfall, but only after it has already been raining for a day or two. By then, we cannot harvest our paddy, and it is mostly ruined.”

– Male, Sunamganj

Participants mentioned that weather updates are too technical and in non-localised language making it hard to understand. There were also doubts on the accuracy and reliability of the weather forecasts – with forecasts arriving too late, after the extreme weather had begun or not aligning with the actual weather.

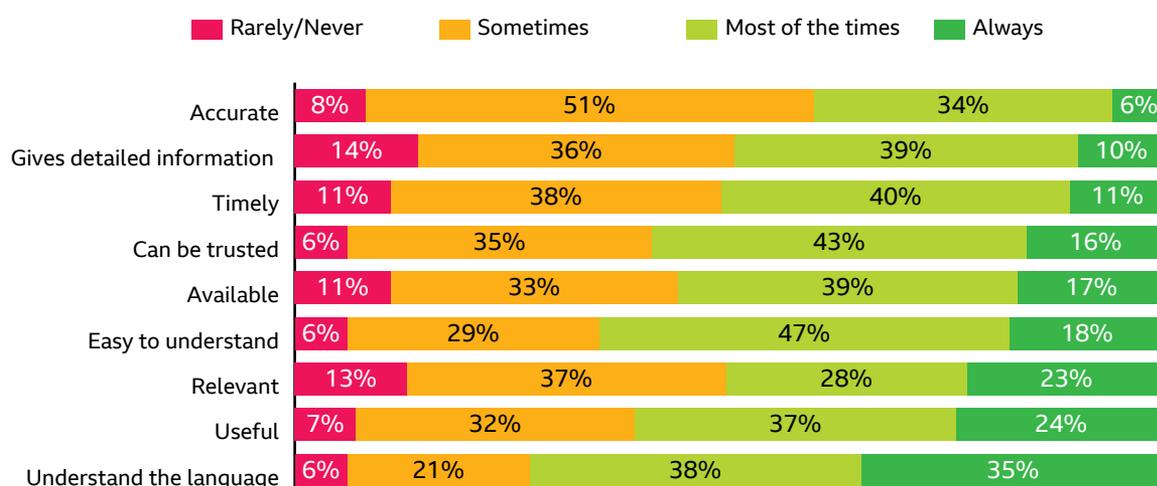
It was also noted that the forecasts did not explain the severity of the situation or give information on the actions they could take to cope better. Participants also felt that the forecasts were not timely and often arrived after the extreme weather had already begun.

In line with the general public, practitioners and frontliners cited the absence of localised, impact-based forecasts as a major issue, fostering community distrust. A lack of accurate long-term weather predictions also limits agricultural officials’ ability to guide farmers in making informed cultivation decisions.

“ In our country, BMD (Bangladesh Meteorological Department) provides weather forecasts, and the 3-day forecast is about 90% accurate. But as the forecast period gets longer, its accuracy goes down. For farmers, it’s really difficult to plan their crops with such a short forecast window because most crops take around 90 to 100 days to grow. It would really help if they could get reliable weather forecasts for at least the next three months.”

– Practitioner, Agriculture Sector, Cox’s Bazar

Figure 4: Perception of weather forecast effectiveness on different aspects



Q. Thinking about the weather forecasts you receive/read/watch/hear, please tell me if the forecast is always, most of the times, sometimes, rarely or never. Base: 3500

Men and women obtain weather forecasts and other weather information from different sources

Family members are the primary source of weather information for women, whereas men mainly obtain it from television. The use of weather apps is higher among men than women, highlighting a gender gap in access to digital forecasts.

Table1: Source of weather and climate information

 Men	Source	Percentage	 Women	Source	Percentage
	Television	77%		Family	70%
	Family	41%		Television	52%
	Friends	40%		Friends	36%
	Facebook	37%		Facebook	29%
	YouTube	29%		YouTube	26%
	Weather APP	16%		Weather APP	6%

Q. Where do you get your weather forecasts and other weather information from? Base: 3485

The traditional gender norms are making women more vulnerable to access and receive WCIS

- » Women are generally occupied with cooking, cleaning, and caregiving, leaving little time to follow weather updates.
- » They need to seek permission from their husbands, which often prevents them from leaving home or attending community meetings.
- » Even when smartphones are available in the household, they are usually used by children and other family members, limiting women’s ability to access and receive weather information.
- » Many women also struggle to use automated systems like the 1090 weather hotline.
- » If a household does not have a television set, or if it is not working, women usually cannot go to public places to access weather information due to mobility constraints.

Users of weather forecasts mainly apply them to plan their daily activities

The majority (81%) of participants reported that they use weather forecasts for deciding what to wear, whether to take an umbrella, or when to travel. Additionally, 27% said they use forecasts for planning trips such as traveling to the market or to health facilities.

Men are significantly more likely than women to use forecasts for agricultural purposes, particularly for farming decisions (40% vs. 25%). A similar pattern is seen between urban and rural residents, with rural people (42%) more likely than urban dwellers (21%) to apply weather information for agricultural purposes.

People want more information to help them prepare for extreme weather events

Participants strongly emphasised the importance of receiving weather forecasts that are accurate, timely, and tailored to their local area. They particularly asked for timely updates on extreme weather events, such as heatwaves, heavy rainfall, and thunderstorms. Moreover, they showed the most interest in seasonal forecasts (73%), followed by three-day (68%) and one-week (66%) forecasts.

Table 2: Information needs

Information needs	 Men	 Women
Accurate weather forecast	97%	93%
Timely weather forecast	97%	92%
Localised weather forecast	91%	87%
Information on how to prepare	90%	88%
Information on the extreme weather events	90%	87%
Early warnings of the extreme weather events	90%	86%

Q. What kinds of support and/or information will help you to be more prepared for extreme weather events?
Base: 3500

Information preferences by gender

Women prioritise information on how to keep their family safe and healthy while men are more interested in information that can help them to learn skills to improve or maintain their livelihoods.

Preferred platforms for weather and climate information

Preference of social media users

 Reels	» Local dialect	 Short videos	» Local dialect
	» 30 seconds		» Upto 3-5 minutes
	» Experienced farmer, expert, and young presenter		» Episodes with interactive content
	» Thumbnail showing an emotional picture with impact		» Experienced presenter
			» Catchy caption
			» Statistical data to hook people

Preference of social media non-users

Both men and women valued outreach activities such as courtyard and community meetings. Women suggested school-based sessions for those with limited smartphone access or mobility. Participants agreed that using video content would make sessions more engaging and should focus on practical solutions to extreme weather challenges.



I Early warning information

Early warnings for floods and flash floods are not widely disseminated

“ I have been living in this area (haor) since childhood and got married here as well. In all these years, I do not remember ever receiving any flood-related warning... Last year, our chairman made an announcement telling us to harvest the paddy because India had opened the dam. But we do not receive such announcements regularly.”

– Female, Sunamganj

This study found that early warnings for floods or flash floods are not widespread. Community people typically rely on seasonal patterns to anticipate flooding, rather than receiving timely alerts. Interviews with NGO and media professionals revealed that flood alerts are often delayed or poorly disseminated. Practitioners noted that even when early information is available, the absence of a structured dissemination system, such as the Cyclone Preparedness Programme (CPP), limits its reach. They also noted that, similar to floods, there is no established early warning mechanism for heatwaves.

In many cases, cyclone early warning systems become less effective due to limited media access, low risk perception, and a lack of trust in the information provided.

“ We heard there might be a storm (cyclone) within a few days. Even after knowing that, many fishermen already left for the Sundarbans. We get storm warnings, but they are not always true. People living around the Sundarbans mostly don’t trust the signals (cyclone signal).”

– Male (Foresters), Satkhira

Participants from Cox’s Bazar and Satkhira reported that cyclones have become a familiar part of their life. They feel they have learned how to cope with and respond to these events over time. They also reported a lack of trust in cyclone warnings, noting that the signals often do not reflect the actual intensity of the cyclones they experience. Participants from Cox’s Bazar shared that many people become less fearful about the cyclone signals and they even go to the sea beach to take selfies when a high alert is issued.

Limitations of different dissemination channels for cyclone early warning

	During cyclones, electricity is often unavailable, making it difficult for people to charge their mobile phones due to poor power supply.		Overuse of miking - as used for non-disaster messages such as product sales, or political messages.
	People living in remote areas often miss CPP warnings because volunteers are unable to reach those locations. People miss the warnings when they are not at home when the announcements are made.		SMS alerts are often ignored as many people only check SMS when buying internet data or checking available balance on their mobile. phone, causing them to miss important weather warnings.
	Low awareness of government hotline number 1090. Few people - mostly men - are aware of it.		Barriers to using 1090 because of poor network coverage and lack of phone charging facilities during power outages.
	People usually do not listen to the radio. Poor radio network limits early warning reach.		During cyclones, electricity is often unavailable, making it difficult to watch television.
	Lack of awareness about the cyclone warning flag system and the meaning of each flag.		

I Extreme weather events, risk perception, and adaptation

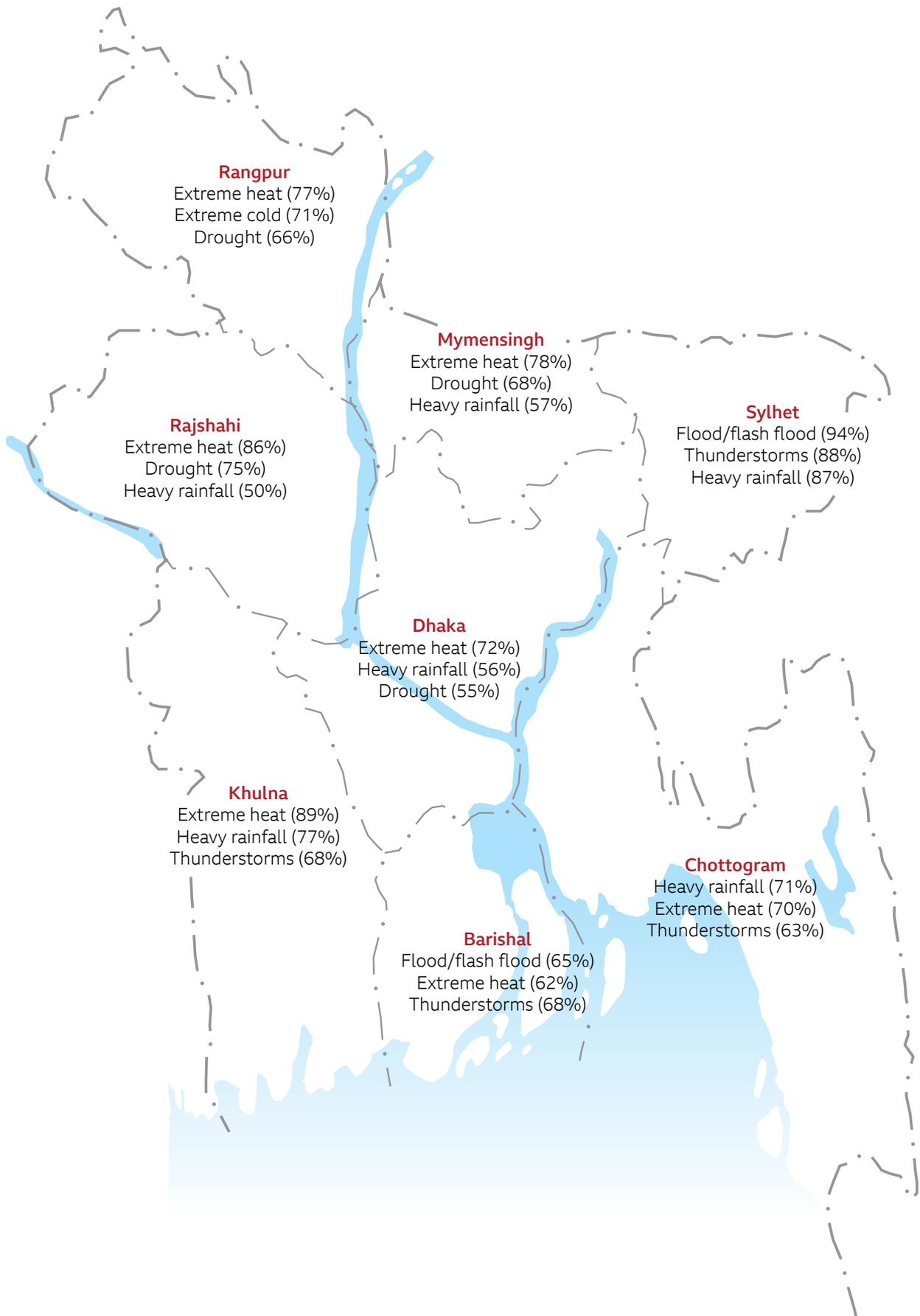
Unpredictable and less communicated weather events are perceived as greater risks

Participants observed and experienced that rising temperatures have become more noticeable over the past five years, with intensity increasing each year. However, they feel that neither the government nor NGOs have taken adequate measures to address the issue, and information on coping and adaptation is rarely shared. Respondents from five of the eight divisions reported extreme heat as their highest risk. The study also found that unpredictable weather events increase the perceived risk among communities. For example, participants from Sunamganj mentioned flash floods as a higher risk than regular floods because they strike suddenly, destroy crops, and leave little or no time for preparation.

Table 3: Three highest perceived risk weather events by division

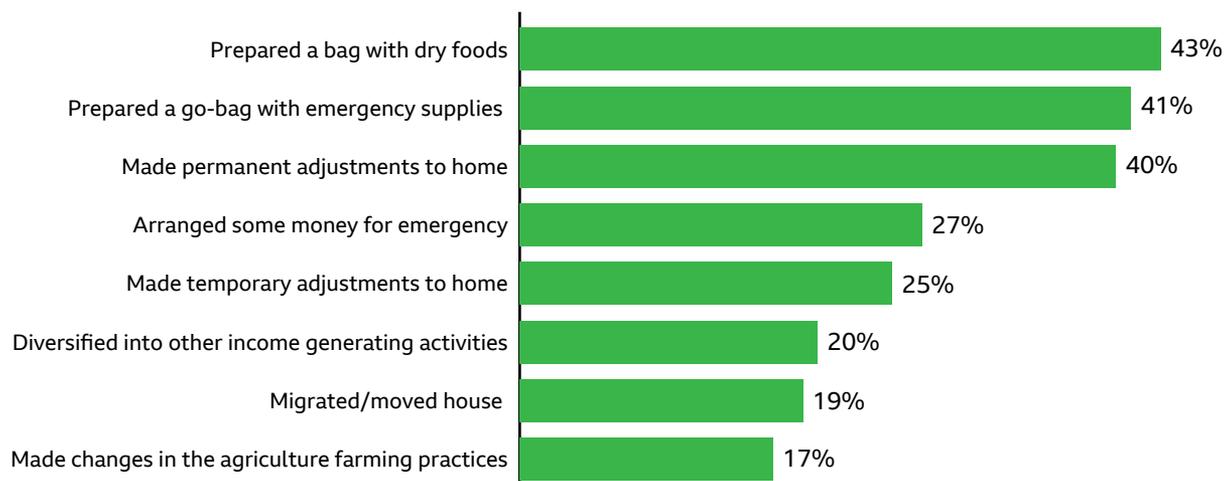
Dhaka	Extreme heat (72%)	Heavy rainfall (56%)	Drought (55%)
Mymensingh	Extreme heat (78%)	Drought (68%)	Heavy rainfall (57%)
Chottogram	Heavy rainfall (71%)	Extreme heat (70%)	Thunderstorms (63%)
Sylhet	Flood/flash flood (94%)	Thunderstorms (88%)	Heavy rainfall (87%)
Barishal	Flood/flash flood (65%)	Extreme heat (62%)	Heavy rainfall (57%)
Khulna	Extreme heat (89%)	Heavy rainfall (77%)	Thunderstorms (68%)
Rajshahi	Extreme heat (86%)	Drought (75%)	Heavy rainfall (50%)
Rangpur	Extreme heat (77%)	Extreme cold (71%)	Drought (66%)

Q. How at risk do you feel your local area is of experiencing of each extreme weather events? Base: 3500



People are adopting a combination of short- and long-term strategies to cope with extreme weather events. Despite this, actions around securing or adapting to livelihoods remain limited.

Figure 5: Actions to prepare for extreme weather events



Q. Have you or your household done any of the following to prepare for extreme weather events that we have been discussing - such as floods, drought, etc.? Base: 2287

A lack of government support, and fatalistic attitudes are the key barriers for adaptive actions uptake

“What can humans do? Heat, storms, and rain are given by Allah. These weather events have become extreme because people have become sinful. People take interest, which is haram in Islam. The rich deprive the poor of their share. People are no longer helpful to each other. That is why Allah is punishing us with extreme heat, frequent storms, and less rain than before.”

– Female, Kurigram

Over 8 out of 10 respondents agreed that the lack of government support is one of the reasons for not taking actions to respond to changes/impacts of weather. Long term measures like rainwater harvesting are financially out of reach without external assistance. Another prominent barrier is the deep-rooted belief in divine protection. 75% of the respondents agreed with the statement, “God will save us,” which contributes to their reluctance to take preparatory action. Besides, 67% agreed that they lack the resources necessary to adequately prepare for or respond to extreme weather events.

I Overall media access and use in Bangladesh

Almost everyone (99%) aged 18 and above have access to at least one media platform such as television, mobile, newspaper, radio or internet. Access to and use of different media platforms are lower among women compared to men.

Table 4: Media access and usage

Media platform	Men		Women	
	Access	Usage	Access	Usage
 Television	92%	83%	69%	48%
 Basic phone	87%	78%	88%	68%
 Smart phone	75%	66%	66%	55%
 Internet	68%	54%	53%	37%
 News paper	31%	23%	6%	4%
 Radio	19%	6%	10%	3%

Q. Do you have access to the following in your home or elsewhere? [aggregated considering the access at home (own it/have control of it), at home (don't own it/don't have control), elsewhere (e.g. friends, neighbours, offices)]
Base: 3477

Q. How frequently do you do the following, if at all? Base: 3477

Entertainment and communication are the main purposes of internet use, each cited by 87% of respondents. Among the internet users, YouTube (75%) is the most popular social media platform followed by Facebook (66%) and messenger (61%). TikTok is more popular among men and women aged 18-24. Imo is popular among women aged 25 and above.

Across genders, locations, and age groups, the majority of respondents (90%) agreed that social media exposes them to a diverse range of opinions. However, concerns persist around trust, the prevalence of hate speech, and the fear of online abuse.

Table 5: Perception about social media

Statement	% of Strongly agree or agree
Social media offers exposure to diverse opinion	90%
Often counter hate speech/ offensive content on social media	76%
Fear of abusing me from posting on social media	60%
Trust in what I read or see on social media	41%

Q. Please listen carefully and tell me if you agree or disagree with the following statements... [those who agreed and slightly agreed are mentioned here] Base: Internet users:2000

Information verification

- » Participants mentioned that before and after disasters, false information spreads within communities — such as misinformation about cyclone signals, disaster timing, death tolls, and relief distribution.
- » 41% of the respondents take at least one step to verify the authenticity of the information they read, hear, or watch. Among them, 65% rely on friends or family to verify the credibility of information.
- » Only 16% of the respondents take at least one accurate step to verify the authenticity or accuracy of the information they read, hear, or watch.



RECOMMENDATIONS

Localise weather- and climate-related information: There is a need for localised, clear and accessible weather information. Many people find existing weather information vague or difficult to understand, emphasising the need for tailored, region-specific forecasting in their local language.

Strengthen trust in forecasts and early warnings: There is a general lack of trust in the accuracy and usefulness of forecasts. Therefore, it is necessary to improve forecast reliability and provide trustable information so that community people can trust the information and prepare themselves accordingly.

Enhance climate education and awareness: Partnerships between governments and community-based organisations are crucial to help people better understand the causes of climate change. While many recognise that extreme weather events are becoming more frequent, they often interpret them as acts of God or divine punishment rather than as results of environmental changes and human actions. Strengthening such collaborations can also promote practical adaptation strategies. Education and awareness efforts should also integrate local knowledge and beliefs, using trusted community figures such as religious leaders.

Improve digital literacy: Community members acknowledged that false information often circulates before and during disasters. However, most of them are unaware of how to verify the accuracy of such information. Similarly, practitioners and frontline workers also admitted having limited understanding of proper information verification procedures. Therefore, building people's capacity to verify sources and identify credible information is essential to reduce the spread of misinformation during weather-related crises.

Integrate faith-based/cultural concerns with practical solutions: Research shows that many people believe extreme weather events are acts of God or forms of divine punishment, which discourages them from taking adaptive measures. Engaging religious leaders in conversations about practical adaptation strategies could help inspire action. They can play a key role in raising awareness about climate change and motivating communities to respond, while respecting their faith and religious values.

Improve co-ordination between scientists and media practitioners: Foster collaborations and partnerships between communities, local media houses and meteorological services to improve trust between these groups, and to ensure that communities receive more relevant and accessible weather-related information. Invest in weather/climate-related training for journalists and develop climate experts' communication skills to facilitate the co-creation of localised, practical content (e.g. clear and actionable weather forecasts in local languages).

Strengthen gender-sensitive climate communication and programme: Findings show that women face major barriers in accessing weather and climate information due to limited mobility, household duties, and low media access. Hence, these factors should be taken into account when designing programmes. Many women also suggested that schools could serve as safe and trusted spaces where they feel more comfortable participating. Additionally, since male family members are often their primary source of information, they should be encouraged to share updates with women in their households.



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