BBC MEDIA ACTION INSIGHT

Enhancing climate communication for communities in Bangladesh, Kenya and Nepal

Understanding how people experience climate and use weather information

Norway BRIDGES

RESEARCH BRIEFING

JUNE 2025

About this briefing

This briefing summarises key findings from qualitative and quantitative research into citizens' knowledge and experience of weather and climate information services (WCIS)[1] in Bangladesh, Kenya and Nepal. This study aimed to assess how people are accessing weather and climate information and how they are experiencing the impacts of climate change – specifically preparing for and responding to extreme weather events, and making longer term adaptations in respond to changes in local weather patterns and climate conditions.

While this briefing recognises that each country has its own unique context and challenges, it aims to offer insights and lessons to inform future learning, policy and more effective WCIS responses across different settings.

Context

Extreme weather events including heatwaves, droughts and intense storms are occurring more often and with greater severity than ever.[2] Between 1970 and 2021, around 12,000 disasters involved extreme weather, climate and water-related hazards.[3] These hazards resulted in staggering losses, including an estimated US$4.3 trillion in economic damages and the deaths of approximately 2 million people. The burden fell disproportionately on low- and middle-income nations, which accounted for 90% of the fatalities.[4]

Weather and climate information services play an essential role in supporting people to react to changing weather patterns and resulting natural hazards such as flooding and landslides by providing vital information to enable action – particularly in the early warning and risk assessment phases. However, the WCIS system is currently not as effective as it should be.[5]

BBC Media Action, with funding support from the Norwegian Agency for Development Cooperation (NORAD), is responding to this urgent need to improve communication, understanding and trust between all WCIS communication stakeholders across Bangladesh, Kenya and Nepal, which are particularly vulnerable to the impact of extreme weather events. These stakeholders include government meteorological and disaster risk management authorities, technical sector specialists (in fields including agriculture and health), media practitioners, outreach services and communities themselves.

This project, Building climate resilience through strengthened communication across the WCIS system (Bridges) which runs from 2024 – 2027, encompasses the whole WCIS communication pathway, from observing and forecasting the weather to early warning systems, and supporting disaster preparedness, early action and effective longer-term adaptation in response to climate changes.

[1] 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." Available at: https://wmo.int/media/magazine-article/what-do-we-mean-climate-services

[2] World Meteorological Organization (2024) *2024 State of Climate Services* (WMO-No. 1363) [PDF]. Available at: https://library.wmo.int/viewer/69061/#page=1&viewer=picture&o=bookmark&n=0&q=

[3] UN (2023) 'Extreme weather caused two million deaths, cost $4 trillion over last 50 years'. News article 22 May 2023. Available at: https://news.un.org/en/story/2023/05/1136897

[4] Ibid.

[5] Agyekum TP, Antwi-Agyei P and Dougill AJ (2022) The contribution of weather forecast information to agriculture, water, and energy sectors in East and West Africa: A systematic review. Front. Environ. Sci. 10:935696. doi: 10.3389/fenvs.2022.935696

Research methodology

Between July 2024 and January 2025, BBC Media Action conducted mixed-methods research to understand how citizens in Bangladesh, Kenya and Nepal:

- Access and use weather and climate information
- Experience the impacts of climate change
- Prepare and respond to the extreme weather events
- Use media, and what their communication needs are

Researchers conducted a quantitative survey and held focus group discussions (FGDs) with participants from both urban and rural areas across all three countries.

The quantitative sample comprised:

- **Bangladesh:** 1,260 adults aged 18 and above across all five project focal districts (Cox's Bazar, Satkhira, Sunamganj, Jamalpur and Kurigram)
- **Kenya:** 1,175 adults aged 18 and above across nine project focal counties (Busia, Nairobi informal settlements[6], Homabay, Kwale, Marsabit, Samburu, Siaya, Tana River and Turkana)
- **Nepal:** 2,856 adults aged 18–80 from 35 districts across all seven provinces

A total of 57 focus group discussions (FGDs) were held with men and women aged 18 and older across the three countries: 14 in Bangladesh, 17 in Nepal, and 26 in Kenya.

In addition, the research team conducted 142 in-depth interviews with media and WCIS practitioners across the three countries to understand their perspectives (see Appendix for further information on the methodology).

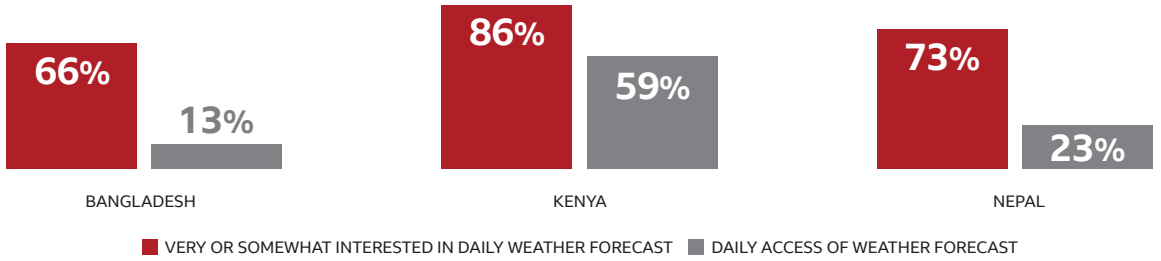
[6] Kibera, Kawangware, Korogocho, Mathare

Key insights and learnings

1. WCIS must be user-centred

This research revealed significant gaps between people's reported level of interest in weather forecasts and how much they actually access them. For instance, in Nepal, while 73% of respondents said they were interested in daily weather forecasts (19% very interested and 54% somewhat interested), only 23% actively check them daily. Responses in Bangladesh indicated an even greater disparity between levels of interest and behaviour (see Figure 1).

Figure 1: Interest in, and use of, weather forecasts in Bangladesh, Kenya and Nepal



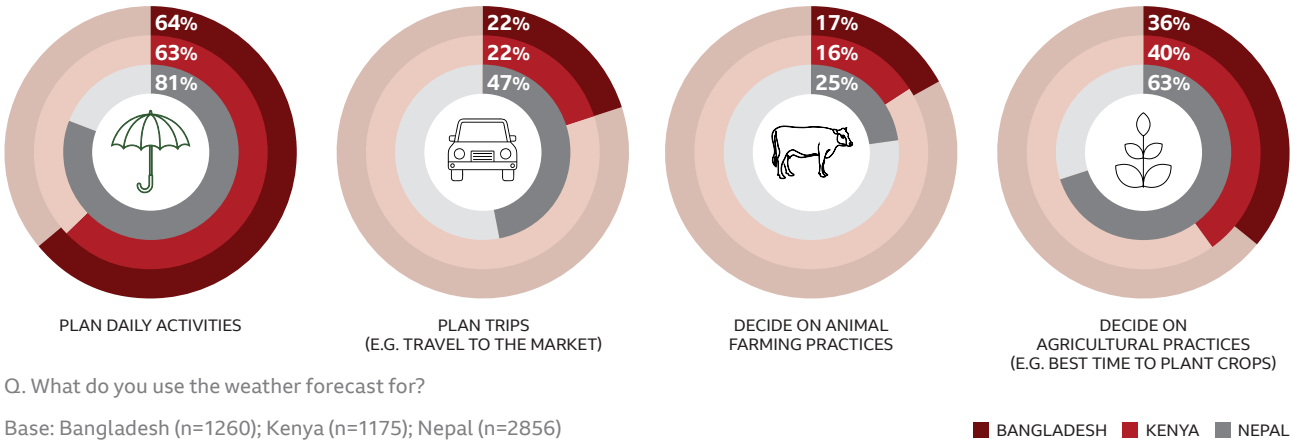
Q. How interested are you in the weather forecasts for today/every day?
Q. How often do you read, watch or listen or check to the weather forecast for your local area?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

Although people believe that it is important to check weather forecasts and are interested in receiving them, **the frequency with which people actively seek weather forecasts varies by country.** In Bangladesh, only 50% of respondents said they seek out weather information at least once a week. In contrast, 87% of respondents in Kenya said they look for weather information at least weekly – and 59% do so daily.

Most respondents across the three countries use weather forecasts to guide everyday decisions to help them decide what to wear, whether to carry an umbrella or when to set out for travel (see Figure 2). Farmers commonly rely on weather forecasts to guide their agricultural decisions. For example, in Kenya, six in 10 farmers surveyed said that they use weather forecasts to decide on their farming practices.

Figure 2: How people in Bangladesh, Kenya and Nepal use weather forecasts



Q. What do you use the weather forecast for?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

Across all three countries, **women are generally less interested in weather forecasts**, and are less likely to access them, than men. For example, a higher proportion of men in Nepal (28%) said they check forecasts daily, compared with women (15%). Similarly, in Kenya, 62% of men and 56% of women said they check weather forecasts daily.

Women are also more likely than men to access or rely on weather information from family members or friends. For instance, in Bangladesh, women said they receive weather updates from their husbands, sons or from local markets due to their own limited access to TV, time constraints or household responsibilities. Among people with disabilities, 62% in Kenya said they access weather forecasts daily – more than in Bangladesh (11%) and Nepal (27%).

As revealed from both our qualitative and quantitative research, two reasons for this are the lack of trust in modern weather forecasts due to historical inaccuracies, and the use of indigenous weather forecasts. Language, localisation and accessibility were also mentioned by respondents with and without disabilities as barriers to engaging with modern weather forecasts.

> **“ Those persons who are disabled are more at risk and vulnerable [of extreme weather events], but there has been no effort in making the information reach the vulnerable communities like us. ”**
>
> *Participant with a disability, Male FGD, Nepal*

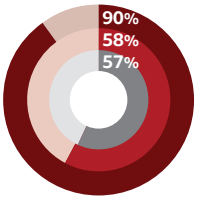
People use weather forecasts for their occupation. In Kenya, fisherfolk need daily information about wind direction and strength to decide on whether it is safe to go fishing. Farmers need accurate seasonal or annual forecasts to plan when to plant and sow their crops and pastoralists require early warning information to make decisions about where to migrate to keep their livestock safe in changing weather conditions.

Use of social media and apps to check weather forecasts

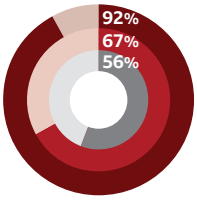
Some 59% of Nepalis, 12% of Bangladeshis and 7% of Kenyans in this study said they use social media such as Facebook to check weather forecasts. Using weather apps is also slightly more common in Kenya and Nepal (cited by 20% and 37% of respondents, respectively) than in Bangladesh (11%). Those who are likely to use social media and weather apps to get weather reports skew urban in Kenya, younger (aged 18–24) in Bangladesh, and male, younger (aged 18-34) and educated in Nepal.

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

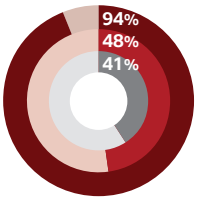
People, including people with disabilities, want information to help them prepare for and adapt to increasingly frequent extreme weather events. Their preferred information includes:



Weather information: 90% of respondents in Bangladesh said they need information on the potential impact of extreme weather, with a higher demand for this from women (93% versus 87% for men). 58% of respondents in Kenya also want information on this topic. A significantly smaller percentage of respondents in Nepal (57%) want this information.



Preparatory guidance: 92% of respondents in Bangladesh said they want advice on how to prepare for extreme weather events, with a stronger preference among women (96% versus 89% for men). A majority of respondents in Nepal (67%) and Kenya (56%) expressed a wish for this type of information.



Localised forecasts: 94% of Bangladeshi respondents, 48% of Nepali respondents and 41% of Kenyan respondents expressed a preference for weather forecasts that are specific to their local areas.

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

BANGLADESH KENYA NEPAL

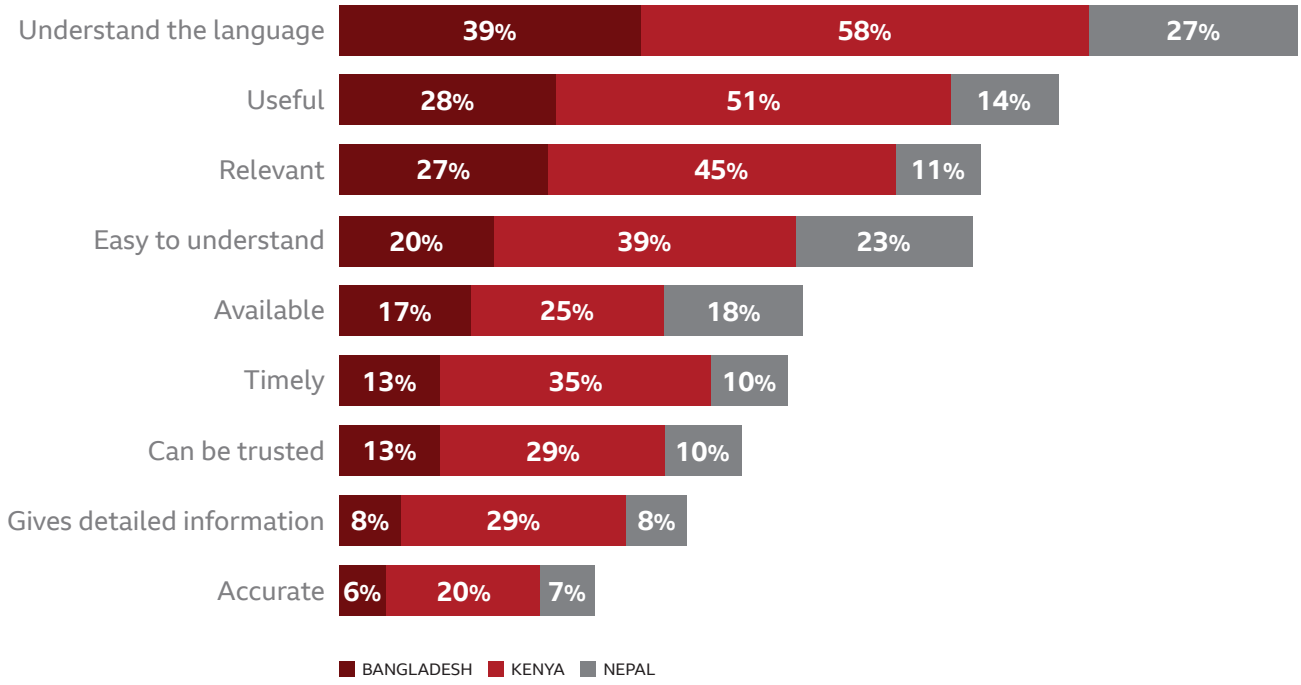
> **“We do not get any information on extreme heat. This… is damaging our vegetables, and we do not know which types of vegetables would be suitable for this weather… We also want to know how to take care of older people and children in this extreme heat.”**
>
> *Female FGD participant, Bangladesh*

Information preferences by gender

In line with their roles as caregivers, 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. For example, in Nepal, women expressed concerns for their children’s health during times of extreme weather whilst men wanted actionable guidance around agriculture and animal husbandry.

3. Perceptions of existing WCIS tend to be negative

Figure 3: Perceptions of WCIS in Bangladesh, Kenya and Nepal



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…

*The percentages in the figure are for the response option ‘always’.

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

The survey asked questions to understand people’s perceptions of the WCIS in their respective countries. These perceptions were mostly negative, especially for the accuracy of weather forecasts. In Kenya, 20% of respondents said that weather forecasts are always accurate, less than 10% of respondents in both Bangladesh and Nepal think this. The ease of understanding forecasts and levels of trust in them are also low – this was particularly apparent in qualitative FGDs with community members.

> **“Sometimes the weather report says, ‘heavy rain in Sudurpaschim’, but we don’t know if that includes our village or not.”**
>
> *Male FGD participant, Nepal*

During interviews with weather/climate experts in all three countries, a key point that emerged was the challenge they face in translating scientific data into useful information for lay audiences. This finding resonates with community members' perspectives. In Kenya, for example, experts said that they often worry about how target audiences will interpret and apply climate information, especially because of resourcing barriers that make it difficult to disseminate very local-level information.

SPOTLIGHT: People do not understand some common terms used in weather forecasts

The survey in **Kenya** presented respondents with an example weather forecast from the MET department:

"Partly cloudy conditions expected tonight. Sunny intervals expected the whole day tomorrow. Strong southeasterly winds of over 25 knots (12.5 metres/second) expected."

Half of the respondents interpreted this information to mean that **it will rain/expect heavy rainfall/it might rain. Another 3% interpreted it as meaning that they should expect drought**.

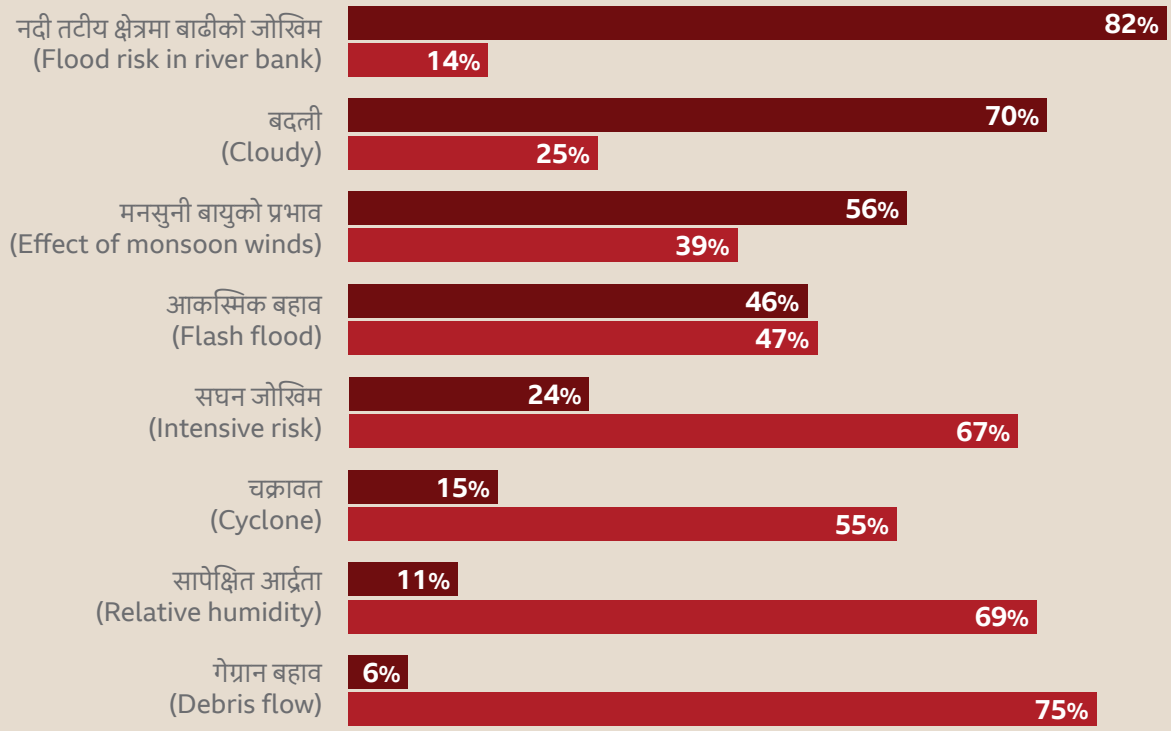
The survey in Nepal shared eight words/phrases that are commonly used in weather forecasts and asked respondents if they understand them (see Figure 4). The majority said that they did not understand four of these eight words/phrases:

• Debris flow • Relative humidity • Intensive risk • Cyclone

Men were more likely than women to say that they understand these words/phrases.

These results indicate a need for simpler language in weather forecasts.

Figure 4: Understanding of key meteorological terms in Nepal



Q: Do you understand the following terms that commonly appear in weather forecasts?

Base: n=2856

4. Early warning systems efficacy is constrained by data access, perception, usage and quality of communication mechanisms

Early warning information systems exists for some weather-related hazards in Nepal, Bangladesh and Kenya – such as for flooding in Nepal, cyclones in Bangladesh and drought in Kenya. At least half of the respondents across the three countries reported receiving alerts about impending weather events in the preceding year (see Figure 5).

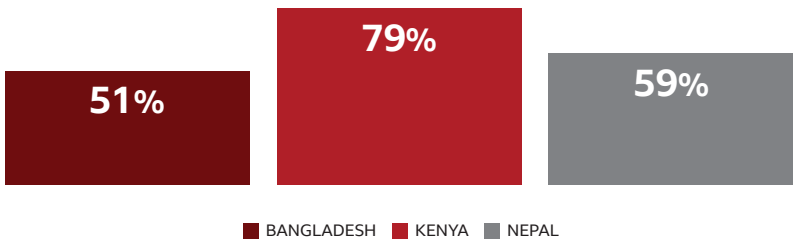
> **"I have been living in this area (haor) since childhood and got married here as well. In all these years, I do not remember ever receiving any flood-related warning…last year, our chairman made an announcement telling us to harvest the paddy because India had opened the dam. But we do not receive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

The primary sources of early warnings vary by country. In Nepal, social media, friends, family members, SMS and local radio were the most frequently cited channels for early warnings. In Bangladesh, family members, national TV channels, friends, public announcements via loudspeakers (miking) and social media were the most common. In Kenya, national and local radio, national and local TV and SMS were the top sources of early warning messaging.

Despite the presence of early warning systems, their effectiveness remains limited due to several challenges. In both Nepal and Bangladesh, the miking system faces significant limitations including limited reach, poor audio quality, inconvenient timing and message fatigue. Respondents in Bangladesh reported that miking does not reach remote areas, the voice is not clear and loud enough, and people do not pay attention to miking messages because this channel is also used for other purposes including local vendors selling goods. Some also said the timing of these miking announcements do not leave them with enough time to prepare adequately.

Similarly, SMS-based early warnings encounter several barriers including low engagement levels and accessibility issues. This study found that people are reluctant to read or check their SMS. In Bangladesh, some respondents said they usually only check SMS when buying data packages and/or checking available mobile balance, so they often miss government messages sent before and during disasters. In Nepal, respondents mentioned accessibility barriers for people who cannot read and who do not own a mobile phone, and that telecommunication network errors can prevent people from receiving timely information. Respondents also mentioned practical constraint that prevent people having timely access to alerts, such as not carrying their phones while they are working.

Figure 5: People in Bangladesh, Kenya and Nepal who have received alerts about extreme weather



Q: In the last year, have you heard or received any alerts about an impending extreme weather event such as heavy rainfall, droughts or floods?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

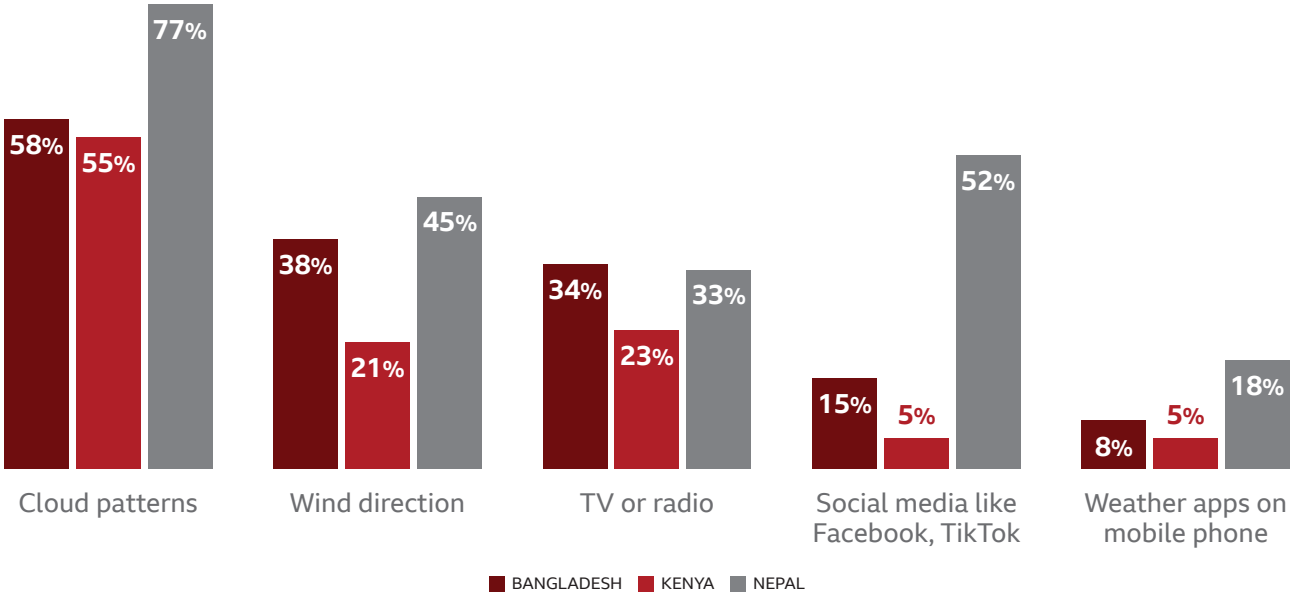
5. People rely on a mix of traditional and modern weather forecasts

“A few years back, the weather people said that the rains would fail and that there was going to be a drought. Some of us did not trust those warnings as sometimes those predictions don’t happen as they say. Our own traditional forecasting did not also match what the scientific one was saying, which was confusing. In the end, the drought indeed came and greatly affected us. It also lasted longer than we expected – something we wish the weather people had told us about.”

Male FGD participant, Kenya

Across all three study countries, people still rely heavily on indigenous and traditional forecasting methods, such as observing cloud patterns and the wind direction, especially in communities where institutional trust, trust in modern weather forecasts and/or literacy levels are low (see Figure 6). Many people have inherited this reliance from previous generations because they provided trusted, contextual insights and are rooted in traditional and cultural practices. However, levels of trust in these traditional forecasting practices are dwindling due to increasingly erratic weather patterns –leaving room for modern weather forecasts to better meet people’s information needs.

Figure 6: How people in Bangladesh, Kenya and Nepal predict the weather



Q: What do you use to predict the weather?

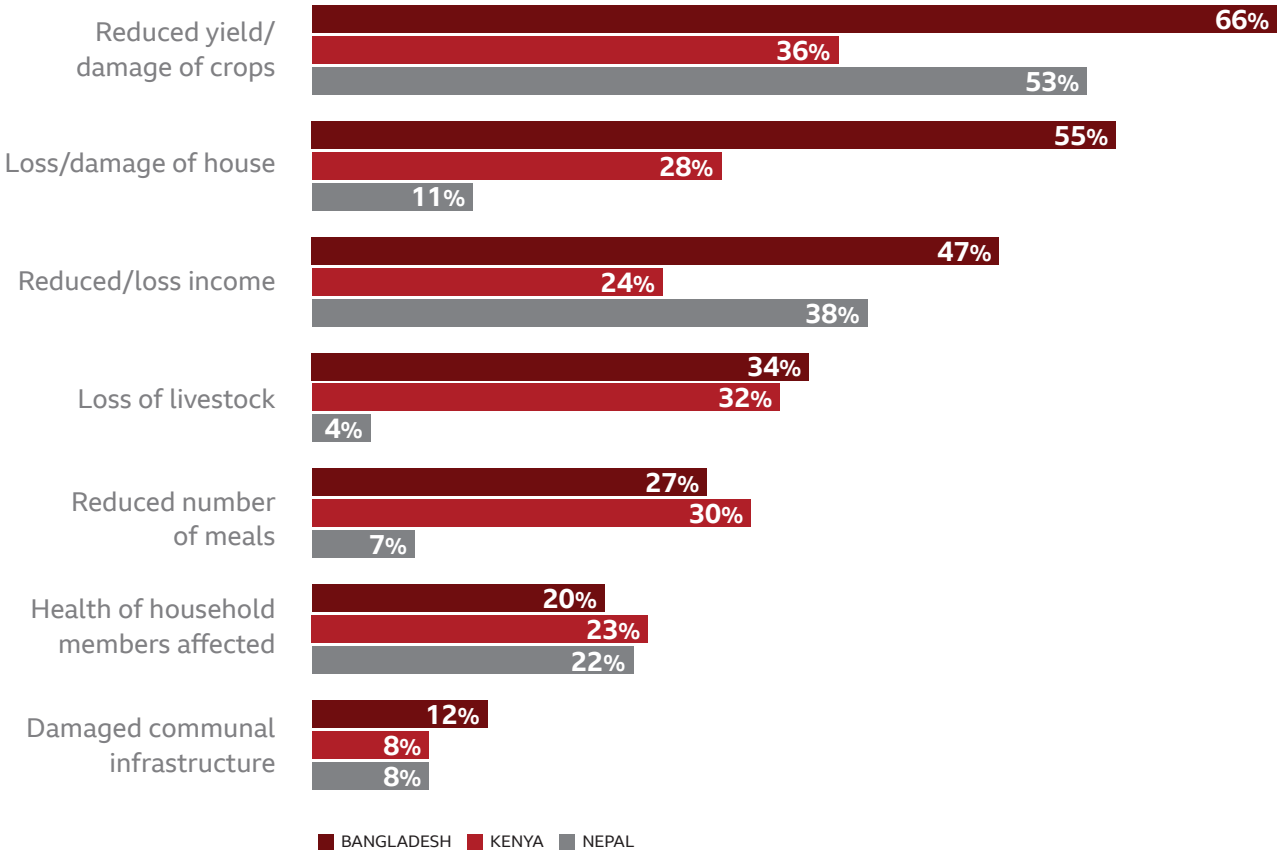
Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

6. People’s experience of the impacts of extreme weather such as drought and floods depends on their circumstances

The majority of respondents across all three countries reported that **extreme weather events greatly affect multiple aspects of their lives,** including their health, livelihoods and income. In Nepal, livelihoods and health are strongly affected, especially for farmers. More than half (53%) of the Nepali respondents reported reduced crop yields or damaged crops as an impact of extreme weather, as did 66% of Bangladeshis and 36% of Kenyans. Respondents also relayed concerns for their health due to hotter weather and increased flooding – this was cited by 23% in Kenya, 22% in Nepal and 20% in Bangladesh (see Figure 7).

> **“The weather has changed over the years. For example, growing up, rainy seasons were predictable and reliable. There was enough water and pasture for our animals, and they did not die as they do nowadays because of drought. We also had enough to eat, and animals could fetch good prices in the market.”**
>
> *Male FGD Participant, Kenya*

Figure 7: The impact of extreme weather events on people in Bangladesh, Kenya and Nepal



Q: Thinking about the last extreme weather event you experienced, how did it affect your household/community?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

Extreme weather events affect women and men differently across the three countries. In Bangladesh and Nepal, women reported experiencing a higher impact on their health or that of their family members while men were more likely to report impacts on their livelihoods (e.g. the variety of crops and food available). In Kenya and Nepal, men were more likely than women to report that extreme weather has a high impact on their income.

Across the three focal countries, people with disabilities were also more likely than those without disabilities to report that extreme weather had a high impact on their livelihoods. In Nepal and Kenya, people with disabilities were more likely to feel that extreme weather had a large impact on their health then people with no disabilities.

Food insecurity: Three in 10 Kenyans and 2 in 10 respondents in Bangladesh reported that they have had to reduce their daily food consumption as a result of extreme weather events.

7. Misinformation and fatalist ways of thinking hinder taking action in relation to extreme weather

> **“ You hear the weather people saying that there will be floods, move away, etc. Sometimes it happens as they predict, other times it doesn’t. I believe we shouldn’t burden ourselves trying to do this or the other as only God knows [what will happen] tomorrow, and whatever happens is his will. ”**
>
> *Female FGD participant, Kenya*

Myths and misconceptions such as extreme weather events being divine punishment, inevitable or exaggerated by the media, are strongly held across many countries – including Bangladesh, Kenya and Nepal.

For instance, 30% of respondents in Nepal and 47% in Kenya were **uncertain about whether climate change is happening.** Three-quarters (75%) of respondents in Nepal and 52% in Bangladesh said they believe it is too late to avert climate change. This uncertainty and feeling of hopelessness may reduce people’s motivation to act and hinder wider climate adaptation efforts. Similarly, fatalism – especially among low-income and religious people – contributes to inaction, even in the face of high levels of both awareness and risk exposure relating to extreme weather.

There is also **a perception that extreme weather events are exaggerated by the media.** Overall 46% of respondents in Bangladesh, 41% in Kenya and 23% in Nepal strongly agreed or agreed that extreme weather events like floods, droughts are not increasing. There is a view that there is just more media reporting of extreme weather these days. In Nepal and Bangladesh, some respondents mentioned that misinformation is being spread by Facebook and TikTok during extreme weather events, and that they had seen false tsunami alerts and misleading disaster images. In Nepal, some FGD participants cited reports of someone being dead after an extreme weather event but was later found alive, and a picture from another country being shared as though it was from the Trishuli landslide in Nepal that occured on 12 July 2024.[7]

Disaster-related information sharing patterns: Bangladesh

When extreme weather events occur, this study found that people in Bangladesh widely share emotionally resonant videos and images, usually without verifying them first. In this way, content that is false can go viral:

- Pre-disaster information includes cyclone warning signals, flood timing predictions and potential future threats
- Post-disaster information focuses on casualty numbers, relief availability and damage sustained

Women tend to share disaster information privately via Messenger, while men are more likely to share publicly in groups.

* In Bangladesh, cyclone severity is communicated using signal systems issued by the Bangladesh Meteorological Department (BMD). These signals indicate the threat level and preparedness required for ports, coastal areas. For example, a signal no of 1 to 3 is distant warning signal which is issues for cyclones that are far away but approaching, and ports are advised to stay alert.

Research indicates that people – particularly women – are more susceptible to mis- and disinformation. In Nepal and Kenya, 59% and 57% of daily internet users, respectively, reported trusting the content they consume online. However, across Nepal, Bangladesh, and Kenya, a higher proportion of women than men admitted to not verifying the accuracy of the information they consume. In Nepal, 60% of women reported

[7] Police say two buses swept into Trishuli at Simaltal, Chitwan. (2024, July 12). Setopati. Available at: https://en.setopati.com/social/163368

that they do not check the information versus 49% of men. In Bangladesh, the gap was wider with 67% of women versus 34% of men, and in Kenya 45% of women versus 33% of men. Among those who do take steps to verify information, the top three methods mentioned across all three countries are shown in the below table.

Table 1: Top 3 steps people are taking to check the accuracy of information they consume

Bangladesh	Kenya	Nepal
Ask friends or family if they think it is true **37%**	Check the original source of the information (e.g. examine website or domain name, or look at details of who the original source is) **24%**	Read the comments section under the information, to see what other people are saying about it **34%**
Compare the information to my own experiences **11%**	Ask friends or family if they think it is true **16%**	Ask friends or family if they think it is true **21%**
Check the original source of the information (e.g. examine website or domain name, or look at details of who the original source is) **7%**	Cross-check the information (e.g. look for the same information on other reputable sources, search for more information on Google, check the accuracy of quotes) **16%**	Read the headline to see if it sounds realistic **17%**

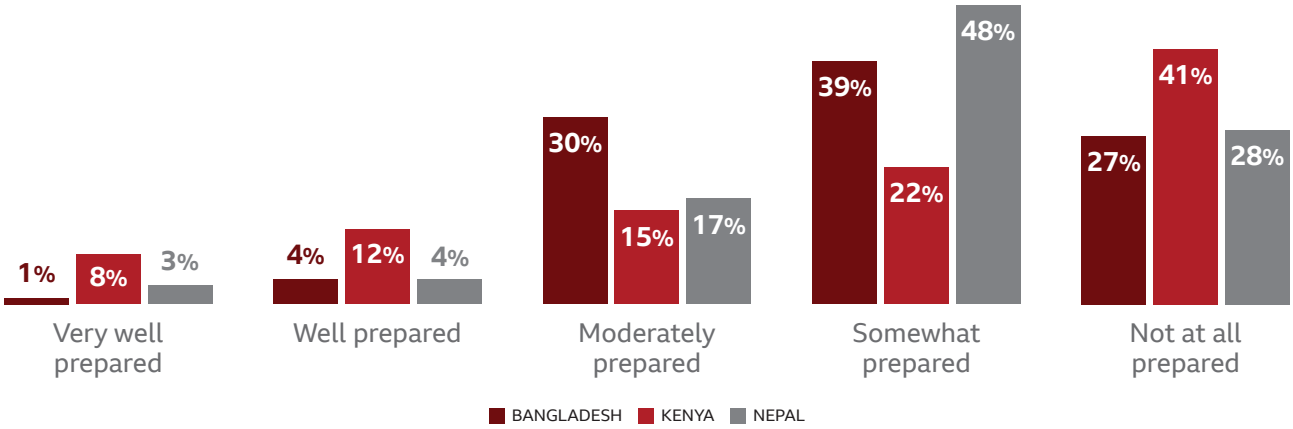
Q: What steps do you take to check the accuracy or authenticity of information that you read or hear or watch?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

8. Awareness of extreme weather events does not always lead to preparedness

Despite extreme weather events having an impact on people, only a very small proportion in all three countries felt very well prepared – see Figure 8.

Figure 8: People's level of preparedness for extreme weather in Bangladesh, Kenya and Nepal



Q: If an extreme weather event were to happen in your local area, how prepared do you think you would be?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

Similarly, only a small percentage of respondents said they were confident in their ability to cope really well with extreme events. Only 5% of those in Nepal said they could cope "very well", as did 10% in Bangladesh and 22% in Kenya.

Even in highly affected areas, **many people are not taking precautions or proactive steps in relation to extreme weather because they feel helpless or fatalistic, or lack the resources** to take action. For example, in Bangladesh's Cox's Bazar, respondents believed they are safe from cyclones, placing their trust in divine protection and their location in upland areas. They also reported feeling that recent cyclones have been weaker and therefore less likely to cause serious damage. In contrast, residents of Satkhira believed that the nearby mangrove forest would shield them from the impacts of cyclones.

Common barriers to people preparing for extreme weather

Lack of resources: A significant barrier is lacking the financial resources to implement long-term adaptation measures, such as building flood-resistant houses or setting up water harvesting systems.

Lack of government support: Many participants feel the government has not provided enough support, which is vital for scaling up adaptation measures.

Trust issues: Particularly mentioned by Bangladeshis, fear of thefts, difficulty in evacuating and inadequate shelter facilities discourage people from taking evacuation seriously during extreme weather events.

> **“ We have always planted maize, beans and bananas in our farm, but in recent years, they have not been doing as well as they used to. Some experts have told us to start growing sorghum but many people in this community consider sorghum a poor man’s crop’. [The] majority don’t also know how to plant and take care of the crop. ”**
>
> *Male FGD participant, Kenya*

Both **gender and age influence people’s level of preparedness for extreme weather events.** Women and older adults often feel less informed about, and less confident in their ability to cope with, extreme weather – highlighting the need for targeted support, education and resources for these groups. For instance, in Bangladesh and Nepal, men were more likely to say they could cope very well or quite well during times of extreme weather events, compared to women. In Nepal, younger people aged between 18 and 24 were more likely to feel able to cope during extreme weather events compared to those who are older (65 – 80).

Across all three countries, **people who access weather forecasts regularly are more likely to adopt a range of preparedness measures.** For instance in Nepal, among farmers who check the weather forecasts at least once a week, 33% reported making changes to their agricultural practices, compared to only 20% of those who check the forecasts less often, if at all.

9. People’s climate risk perceptions are localised and personal

Respondents across all research locations observed that extreme heat, droughts and heavy rainfall have become more frequent. **Rising temperatures were a dominant concern** with 93% of respondents in Bangladesh, and 70% each in Nepal and Kenya reporting they had experienced extreme heat in the previous five years.

People’s perceptions of the risks of extreme weather vary not only by geography but also by age, education level, gender, cultural perspectives, and immediate personal concerns or individual experiences. Within the same country, people experience and feel the impact of extreme weather differently, which means that people’s levels of awareness of extreme weather events and the need to respond to them varies. Some people are disconnected from these issues and not even see the need to check weather forecasts or take such information seriously.

The survey asked respondents about their perceptions of the recurrence of different types of extreme weather events that they were aware of or had experienced. Results show that although people expect these extreme weather events to recur, their **risk perception levels are lower than their levels of reported experience** (see Figure 9).

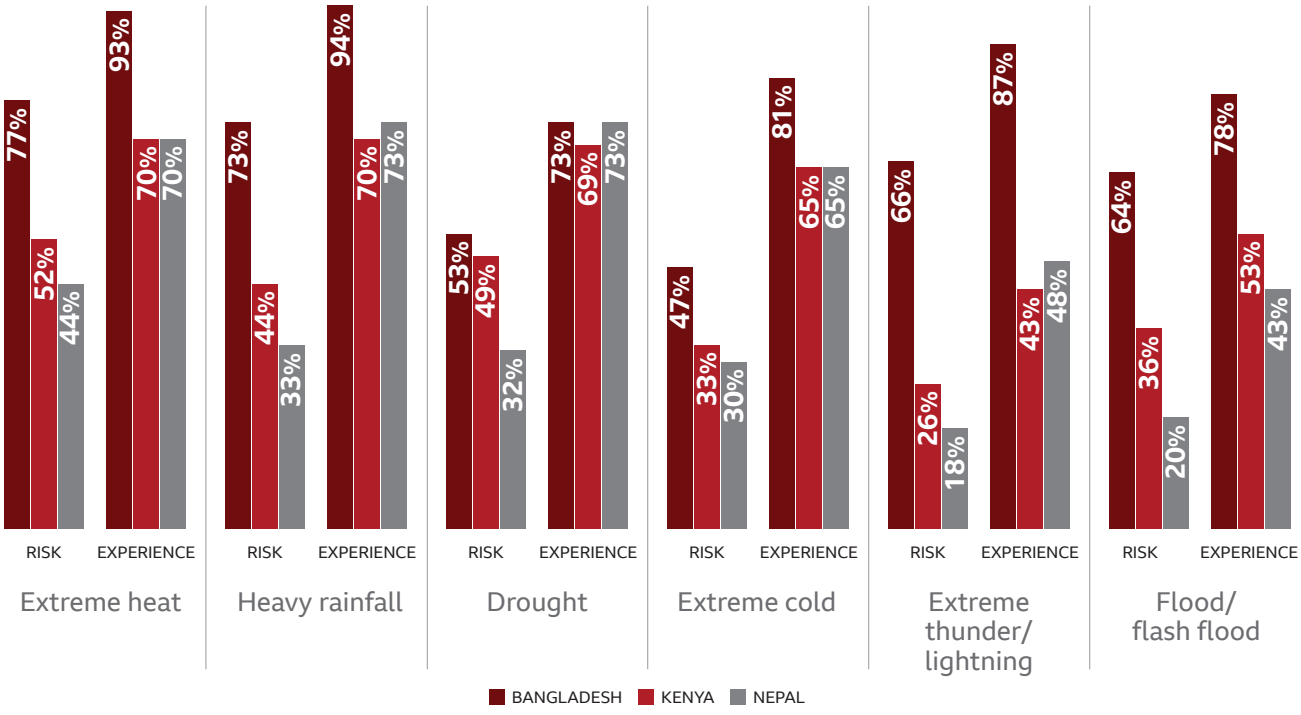
In **Bangladesh**, women are more likely than men to perceive a very high risk from heatwaves. Similarly, women, rural residents, and individuals from **Satkhira** report a heightened perception of risk from heavy rainfall. For extreme thunderstorms, women and rural populations again indicate a higher perceived risk. In the case of floods and flash floods, rural residents and those from **Sunamganj** are more likely to report very high-risk levels.

In **Nepal**, residents of **Madhesh Province** consistently report high or very high perceived risk across all extreme weather events, with the exception of wildfires.

In **Kenya**, individuals in rural and media-dark areas report higher perceived risks for drought, extreme heat, and thunderstorms. Conversely, urban residents are more likely to perceive heavy rainfall as a significant risk. Notably, residents of **Turkana**, **Samburu**, and **Marsabit** report elevated risk perceptions for drought and extreme heat, while concerns about heavy rainfall are more frequently expressed by residents of **Nairobi** and those in **Tana River** and **Kwale**.

> **“ There is always a fear that rain will bring floods. But since the flood in 2014 didn’t cause any significant loss here, I don’t really see flooding as a big risk any more. ”**
>
> *Male FGD participant, Nepal*

Figure 9: Perceived risks (high or very high) and personal experience of extreme weather in Bangladesh, Kenya and Nepal



Q: How at risk do you feel your local area is of experiencing [insert each extreme weather event]?
Q: Have you or your household experienced any of the following in the last five years?

Base: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

Across the three countries, older respondents perceived extreme weather changes more acutely and reported feeling more affected – perhaps due to their longer-term experience. For instance in Kenya, when compared to those who are 45 and above, young people aged 18–24 and urban populations may have more exposure to information about extreme weather from global discourse but appeared to be less aware of localised climate risks and experiences.

10. People's adaptive measures are motivated by short-term survival, not long-term risk

In all three research countries, people are taking some action to adapt to, and protect themselves from, the impact of extreme weather events. In Bangladesh, 68% of respondents were found to have taken **at least three adaptive actions** to prepare for extreme weather events, while 64% in Kenya and 33% in Nepal had done so. These actions were primarily motivated by the need to survive, and protect livelihoods and assets. They were also motivated by peer influence, government pressure and the media (see Table 2).

Table 2: Top three acts in response to extreme weather in Bangladesh, Kenya and Nepal

Bangladesh	Kenya	Nepal
Listen to weather forecasts **58%**	Listen to weather forecasts **55%**	Listen to weather forecasts **41%**
Permanent adjustments to home **46%**	Unblocking drainages **45%**	Preparatory care while building a house (e.g. high foundation) **41%**
Prepare a go bag with emergency supplies **44%**	Temporary adjustments to home **43%**	Made changes in the agriculture farming practices **18%**

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: Bangladesh (n=1260); Kenya (n=1175); Nepal (n=2856)

> **"We tried constructing gabion walls but the heavy rainfall destroyed them. We try to maintain them but nature is powerful."**
>
> *Male FGD participant, Nepal*

The findings indicate that **people prioritise short-term measures over long-term resilience planning.** Some recommended actions, such as insuring livestock, and switching to drought-resistant crop varieties, have minimal uptake due to financial, cultural and informational barriers or constraints.

There are also gender differences in the kinds of actions people have taken to prepare for and adapt to extreme weather. For instance, in Bangladesh, men were more likely than women to have taken various kinds of actions. In Nepal and Kenya, men were also more likely than women to have taken some actions such as listening to weather forecasts, making changes to agricultural practices and preparing a go-bag with emergency supplies.

Short-termism: Few people are taking long-term measures to protect themselves from extreme weather. Short-term actions such as securing basic supplies trump longer-term actions.

Religious beliefs also hinder some long-term resilience planning as many people turn to prayer and religious practices for protection and relief, especially during heatwaves or storms.

11. The media-science divide hinders citizen's use of WCIS

The disconnect between meteorological information and media content means that many weather forecasting is underused. Journalists often lack both understanding of some technical terms used in weather forecasting and editorial support. And climate scientists interviewed as part of this study said they lack the communication skills to convey weather-related information in ways that are useful to journalists. Key challenges in disseminating weather-related information across Bangladesh, Kenya and Nepal are outlined below.

Lack of collaboration between meteorological experts and journalists: Most weather and climate information flows in one direction, from scientists to media practitioners, with little co-creation or

collaboration. This means that journalists do not fully understand the technical data they are reporting and so they repeat information verbatim without conveying it in ways that their audiences can understand, engage with and use.

> **“ There are words we don’t understand, we have to research them ourselves. We often rely on Google search, which is why we share the information as it is when we get it from officials. ”**
>
> *Media practitioner interview participant, Nepal*

Low media capacity and prioritisation: Limited budgets, equipment and staffing at media houses mean that many journalists are not trained on how to report information relating to weather and climate. For instance, journalists in Bangladesh explained that they mostly report the impacts of extreme weather events based on their own experience or local information channels. And media reporting of weather-related information is generally reactive than preventative or investigative. Journalists interviewed in Kenya said that weather-/climate-related content often gets relegated in favour of topics like politics or business, which they feel are more popular among audiences.

Climate experts’ reticence and communication gaps: Climate experts are hesitant to engage with the media. Some are uncomfortable being interviewed or fear being misquoted. Others worry that their information might be misunderstood by the public or cause local or political backlashes –making them cautious when sharing forecasts, which can appear to reduce the urgency or relevance of the information. Experts also face difficulties in translating complex scientific data into language and formats that are accessible to lay audiences.

Logistical challenges in reaching at-risk communities: Although there are systems in place for national-level information dissemination and early warnings, including SMS alerts, radio forecasts and government bulletins, getting this information down to the county or community level is much trickier. Many local governments and agencies lack the resources, capacity or structured processes to ensure that this information reaches the people who need it in timely and useful ways.

Top-down dissemination and audience engagement challenges: Weather and climate information is often discussed in top-down ways, driven mainly by journalist or climate scientists with limited audience interaction or feedback. Journalists interviewed for this study said that these discussions tend to happen at global or national levels, without incorporating local needs and on-the-ground realities. This makes it harder for communities to see how climate-related information applies to their specific situation and limits the effectiveness of early warning systems overall.

12. Collective action is a strong driver of resilience to extreme weather

A strong sense of community prevails across many regions of the three research countries, meaning that people support each other – especially during extreme weather events.

This study revealed that **where people feel that strong community exists, they are more likely to take action** in relation to extreme weather, for example in Kenya as seen in Table 3 below. Therefore, future interventions that recognise and strengthen these social bonds can be more effective.

> **“ The community meets during chief Barazas [public meetings]. We share our challenges and discuss alternatives like digging wells. We also identify where to move or take the livestock as a community. ”**
>
> *Male FGD participant, Kenya*

Table 3: Social cohesion enhances collective action

		In an extreme weather event such as floods, I can count on support from others in my community	
		Strongly agree or agree	Strongly disagree or disagree
Have you worked together with people in your community to take action before, during or after a weather event such as floods or drought?	Yes	**54%**	**33%**
	No	**45%**	**67%**

Base: Kenya (n=1175); Results are statistically significant at 0.05 level; *neutral and refused responses excluded*

In Myagdi, Nepal, research participants have also engaged in communal efforts to protect their village.

> **“ We cover at risk areas (landslide prone) with tarpaulin, clean drains usually before and after the rainfall, and have a traditional practice of collecting funds/materials in the village to support if anyone is impacted by the disaster, which is called “Jhara Uthauney” locally. ”**
>
> *Male FGD participant, Nepal*

In Kenya and elsewhere, informal groups like fisherfolk associations or farmers’ groups serve as important channels for information sharing, peer-to-peer learning, discussions and decision-making. Collective action – such as planting trees, unblocking drains and harvesting rainwater – can both reduce risks and enhance resilience in relation to extreme weather, as it leverages shared expertise, resources, and influence to address complex challenges that individuals may be unable or hesitant to tackle alone.

Recommendations

Localise weather- and climate-related information: The need for localised, clear and accessible weather information is crucial. Many people find existing weather information vague or difficult to understand, which emphasises the importance of tailored, region-specific forecasting in their local language.

Enhance climate education and awareness to counter misinformation: Partnerships between governments and community-based organisations are essential to increase citizens' understanding of the causes of climate change and practical adaptation strategies. This should involve debunking common myths and explaining the scientific basis of climate change, to help shift perceptions from attributing disasters to divine will towards recognising humans' roles both driving and averting climate change. Education and awareness efforts should also integrate local knowledge and beliefs, using trusted community figures such as religious leaders. Educating social media users on how to verify sources and identify reliable information are important for mitigating the spread of misinformation in times of weather crisis.

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 action: Use a gender-sensitive approach in developing information around extreme weather preparedness and adaptation, taking into account the specific concerns and vulnerabilities of women. Women particularly feel the impacts of extreme weather events on their and their family's health. Therefore, it is important to highlight how adaptive actions benefit their and their family's health and well-being.

Encourage collective action to strengthen resilience to extreme weather: Governments and NGOs should support local networks to facilitate information-sharing to improve communal preparedness and cohesion in times of extreme weather events. Collective activities could include planting trees, building safe houses and holding community meetings to discuss action plans.

Integrate faith-based/cultural concerns with practical solutions: Research indicates that many people turn to prayer and religious practices during times of uncertainty. Involving religious leaders in discussion about practical adaptation measures could help motivate people to act. Religious leaders could be encouraged to create awareness about climate change and encourage their communities to take action while honoring and respecting their religious beliefs and practices.

Combine traditional and modern weather forecasting: Leveraging both approaches to forecasting could improve the dissemination of, and citizens' levels of trust and engagement in, weather- and climate-related information. It is important that climate scientists and journalists recognise the cultural significance of traditional approaches and prioritise acknowledging or building upon them, rather than ignoring or undermining their value.

Improve communication of early warning systems: The research has shown that some systems work well and there is strong communication at a local level e.g. in Bangladesh there is a strong warning system for cyclones, but this is not widespread. To improve communication, local outlets need to be supported to

translate information from the early warning systems to produce content, which is credible, transparent, and consistent. This can be done through engaging local stakeholders and service providers to ensure the information is accurate e.g. evacuation plans and availability of shelters. Additionally, in areas with limited access to smartphones or TV, improving the use of alternative channels such as miking or community radio will increase access for the most vulnerable – women, children, people with disabilities and the elderly -to ensure that no-one-is left behind.

Deliver multisectoral responses: Integrated approaches that address important issues and people's primary concerns, such as education, health, agriculture, livelihoods and extreme weather risks can better support community resilience. Framing weather and climate information around people's immediate needs and tangible benefits (e.g. food security, savings, health and water access) rather than distant predictions, targets or long-term benefits may yield more positive results by engaging people and inspiring action.

Appendix

Methodology

Across the three countries, a mixed-method approach comprising of quantitative research (survey) and qualitative research (focus group discussions and interviews) was applied. For the survey, respondents were selected through random sampling. Descriptive analysis was conducted to analyse responses to key questions across the whole sample.

Methodology Breakdown by country:

Bangladesh – For the quantitative research, a nationally representative sample of 3,500 individuals (aged 18+) was selected through a random sampling approach. However, for the purpose of this briefing, results presented are for the five target intervention districts which are Cox's bazar, Satkhira, Sunamganj, Jamalpur and Kurigram (n=1260).

Qualitative research included a total of 14 focus group discussions with adult community members, 5 FGDs with local and national journalists from print, TV, and online media, and 25 KIIs and In-Depth Interviews (IDIs) with government and NGO staff, community volunteers, frontline workers, and Disaster Management Committee (DMC) members from four[8] of the five project focus districts.

Kenya – The quantitative research was conducted with a sample of 1,175 adults aged 18 and above, across the nine project focus counties (Busia, Homabay, Kwale, Marsabit, Nairobi, Samburu, Siaya, Tana River and Turkana) via random selection.

The qualitative study included a total of 26 FGDs with adult community members and six KIIs with weather/climate experts, and agricultural, livestock and fisheries sector experts from the project focal counties, as well as a desk review of the findings generated from previous climate change projects that BBC Media Action has implemented in Kenya.

Nepal – A nationally representative sample of 2,856 adults aged between 18 and 80 from 35 districts across all seven provinces of Nepal were selected randomly. The sample included a nationally representative random sample in 21 districts and a booster sample for 14 selected districts where local radio partners are present[9]. The selection of respondents for the booster sample followed the same methodology as the main sample. The data was subsequently weighted against the latest national census figures by gender, age, province and caste/ethnicity.

Qualitative research included 17 FGDs with adults (18+) from diverse backgrounds across seven districts – one from each of the seven provinces. KIIs were also conducted with 111 relevant stakeholders at all levels of government—local, provincial, and federal—as well as media practitioners, police, and Civil Society Organisations (CSOs).

[8] Cox's Bazar, Satkhira, Sunamganj, and Kurigram

[9] The booster sample for specific districts across the seven provinces was included to ensure minimum sample size of around 50 for the 14 districts where the radio partners are present.

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Cover image: Pregnant Kenyan mother Esther Elaar walks over two hours a day to get to a water source, then carries a heavy, 20-litre jerrycan all the way home again. (Photo credit: Diana Njeru, Project Director, BBC Media Action, Kenya.)

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