BRIDGES

RESEARCH BRIEF

ENHANCING CLIMATE COMMUNICATION FOR COMMUNITIES IN NEPAL:

Understanding how people experience climate and use weather information

BBC MEDIA ACTION

Norway

About the briefing

This briefing summarises key research findings into citizens' experience of climate change and the use of weather and climate information services (WCIS) in Nepal. This study aimed to assess how people are experiencing the impacts of climate change – specifically preparing for and responding to extreme weather events and making longer term adaptations in response to changes in local weather patterns and climate conditions, and how they are accessing and using weather and climate information. It provides insight into how to communicate weather and information services more effectively, detailing who the different target audiences are, their communication needs and the channels to reach them by.

Context

Nepal is among the countries that is most vulnerable to the impacts of climate change, ranking 69th in the Climate Risk Index 2025[i]. The country frequently experiences extreme weather events such as floods, landslides, droughts, and storms, with over 80% of disasters linked to hydro-meteorological causes[ii]. These hazards are causing increasing loss of life, damage to infrastructure, and disruption to agriculture and livelihoods, particularly for vulnerable communities[iii].

To respond to these growing risks, Nepal has developed a range of Weather and Climate Information Services (WCIS), including Early Warning Systems (EWS) for floods[iv]. Despite progress, messages remain difficult to understand and often do not reach remote or excluded groups due to the use of technical language, limited local engagement, and top-down communication.

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 thus 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 objectives

Between August and December 2024, BBC Media Action conducted mixed-methods research to understand how Nepali people:

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

The nationally representative quantitative survey was conducted with 2,856 adults aged between 18 and 80 from 35 districts across all seven provinces of Nepal. Seventeen focus group discussions were held with adult (18 and above) community members from diverse backgrounds in seven districts[1].

Analysis of the survey data, identified four audience segments — *Underprepared, Strugglers,*

[1]One district in each of the seven provinces: Koshi – Jhapa, Madhesh – Mahottari, Bagmati – Sindhupalchowk, Gandaki – Myagdi, Lumbini – Banke, Karnali – Surkhet, Sudurpaschim – Kailali

Persuadables, and Resilient who vary in the factors that enable or hinder their ability to respond and the media platforms they engage with. Understanding audience segments is essential for tailoring communication strategies around WCIS and thereby improving its effectiveness. Detailed profiles of these groups can be found at the end of this briefing.

Key insights

1. Experience and impact of extreme weather events

Around **7 in 10** Nepali people aged 18 to 80 reported experiencing extreme heat, drought and heavy rainfall in the last 5 years

> **It doesn't rain when needed, irregularity has increased significantly. This drought has been ongoing for the past 5-7 years and has affected our agriculture.**
>
> Female, Jhapa district

Extreme heat/ heatwave		Drought		Heavy rainfall	
92%	Madhesh	89%[2]	Madhesh	94%	Koshi
87%	Lumbini	90%	Karnali	93%	Gandaki
83%	Sudurpaschim	74%	Lumbini	90%	Madhesh
				87%	Bagmati

n = 2856
Q. Have you or your household experienced any of the following in the last 5 years?

Extreme weather events are impacting the livelihoods of Nepali people

53%	38%	22%	15%
reported crop damage or reduction in yields	reported losses of income	reported impact on health of household members	reported loss of cultivable land

n = 2856
Q. Thinking about the last extreme weather event you experienced; how did it affect your household/ community?

[2]The government of Nepal has recently declared Madhesh province as a disaster crisis zone due to severe drought and water scarcity in all eight districts. (Source: https://kathmandupost.com/national/2025/07/23/cabinet-declares-madhesh-province-a-disaster-crisis-zone)

Farmers are disproportionately impacted

72% reported crop damage or reduced yields

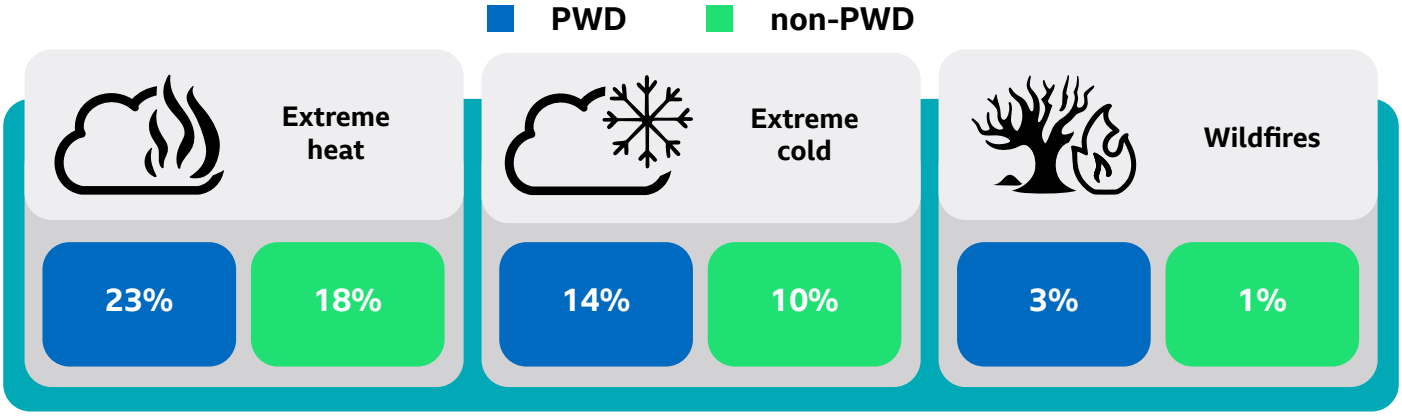
47% reported loss of income

Farmers (n = 989)

Spotlight: People living with a disability

29% of people with disabilities (PWDs)[3] reported "a lot" of impact from weather events in their lives, compared to 23% of those without disability.

Risk perceptions of some extreme weather events were higher amongst PWDs compared to non-PWDs.



* The %s are for the response option 'very high risk' to the question, 'how at risk do you feel your local area is of experiencing.....?

PWDs rely more on personal contacts and less on media

	PWD	non-PWD
Family	70%	60%
Friends	68%	61%
Radio	37%	25%
TV	37%	30%
Facebook	36%	63%
YouTube	23%	38%
TikTok	11%	23%

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

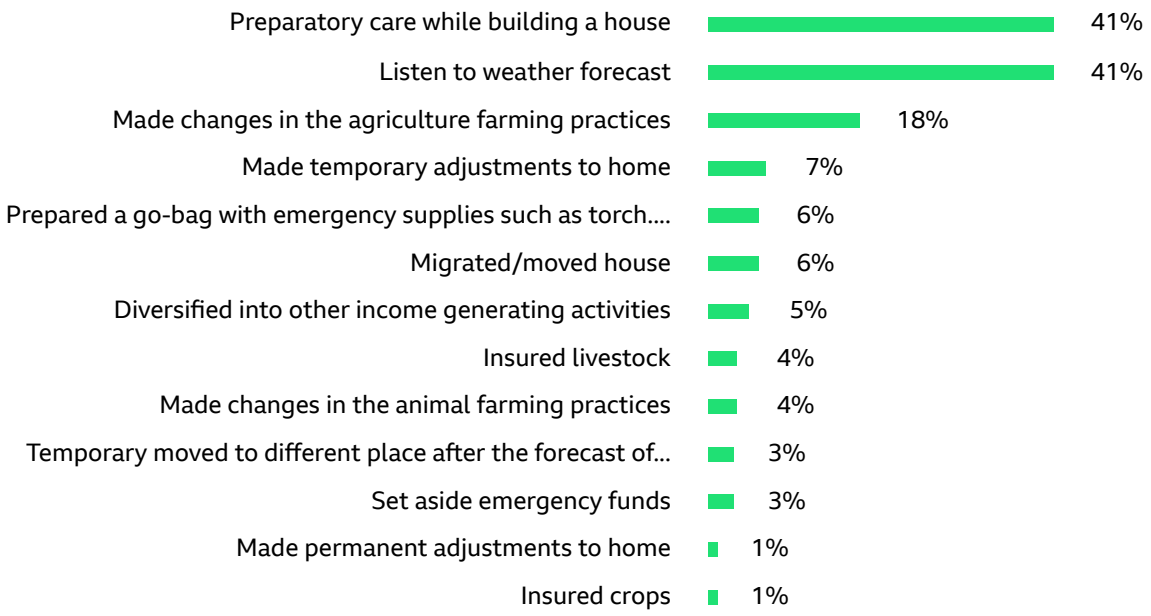
People with disabilities (n) = 400
People without disabilities (n) =2456

[3]In this survey, 14% of respondents reported having a disability. Disability was defined using the questions on disability developed by the Washington Group on Disability Statistics.

2. Adaptive actions, barriers and motivators

People reported taking various reactive and proactive measures, however, the uptake of some proactive measures such as purchasing crops and livestock insurance was very uncommon

Figure 1: Various adaptive measures taken by people to prepare for extreme weather events



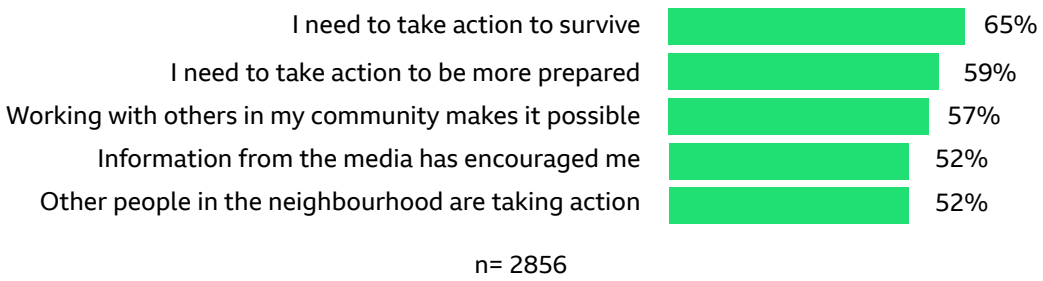
Q. Have you or your household done any of the following to prepare for extreme weather events that we have been discussing?

Across occupations, **27%** of the farmers reported making changes in their farming practices, while **less than 1%** mentioned purchasing crops insurance

Overall, survival is the major motivator for the uptake of these measures.

Figure 2: Motivators for adaptive actions uptake

% of respondents who strongly agree or agree with the statements



Q. I am going to read some statements that people have given as reasons for taking actions to respond to changes/impacts of weather. For each statement I read out, please say whether you agree or disagree with these as reasons for you for taking actions to respond to changes/impacts of weather.

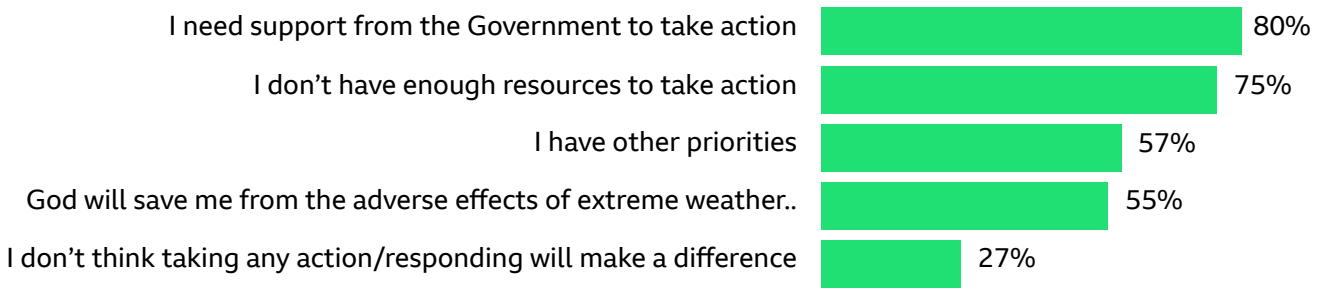
A lack of resources and government support are reported as key barriers to taking action

> We are looking for the government's support to address recurring floods. All we can do is construct gabion walls, but that's not resilient against recurrent disaster.

Male, Gandaki district

Figure 3: Barriers for adaptive actions uptake

% of respondents who strongly agree or agree with the statements



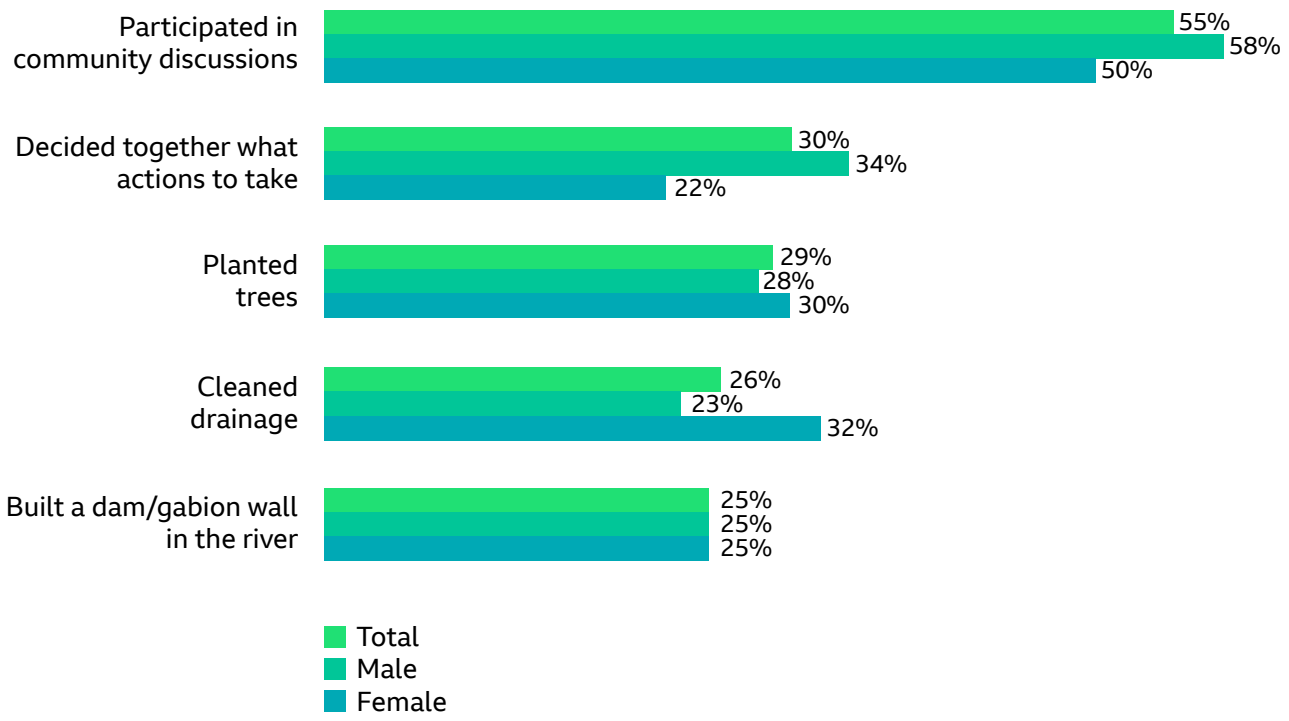
n= 2856

Q. I am going to read some statements that people have given as reasons for not taking action to respond to changes/impacts of weather. For each statement I read out, please say whether you agree or disagree with these as reasons for you for not taking actions to respond to changes/impacts of weather.

3. Communal efforts in adapting to climate change

21% said they have worked together with other people in their community to take action before, during or after a weather event

Figure 4: Top 5 actions people have taken together with community



Number of respondents who reported to have engaged in communal efforts (n) =598, M = 400 , F = 198

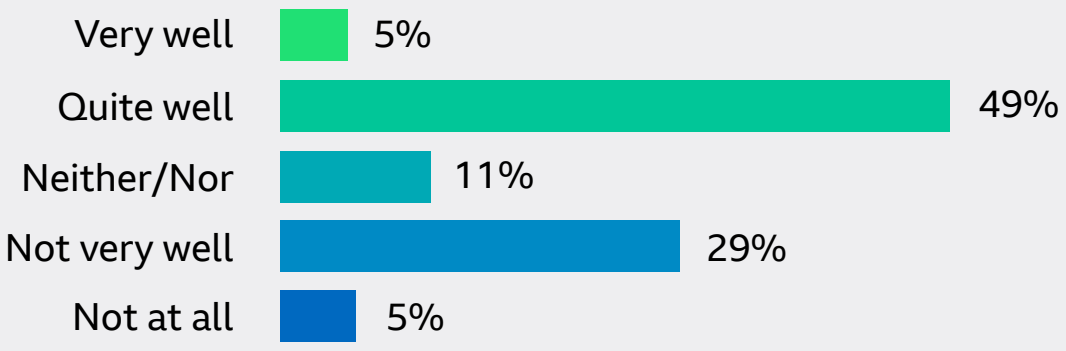
Q: What have you done together with your community?

While 30% of men reported working together with the community, only 13% of women said the same. Across provinces, respondents from Sudurpaschim (46%) were most likely to report working with others in the community, whereas those from Madhesh (8%) were least likely to say so.

4. Perceived ability to cope and informed levels

Though Nepali people are taking various adaptive actions, they do not feel adequately informed and capable of coping and/or dealing with extreme weather events.

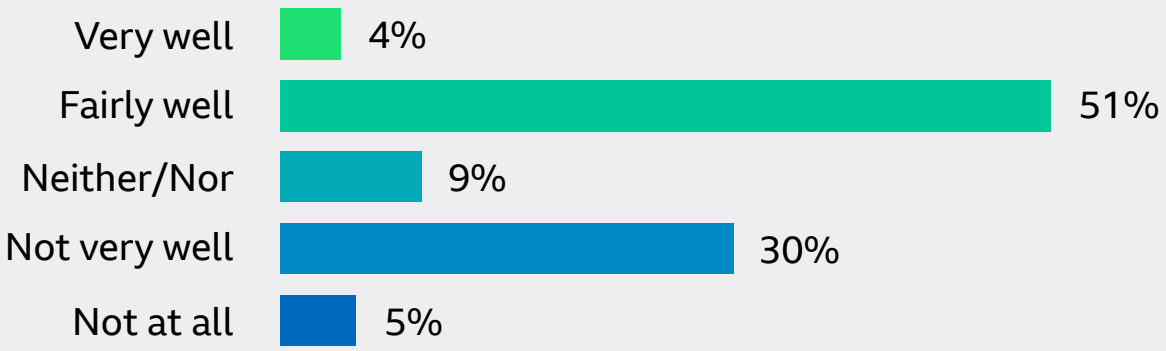
Figure 5: Perceived ability to cope with extreme weather



n= 2856

Q: In your opinion, overall, how able do you feel to cope/deal with extreme weather events?

Figure 6: Perceived informed level



n= 2856

Q: How informed do you feel about the things you could do to cope with difficult weather conditions such as droughts or floods?

Female		Male
50%	Can cope very or quite well with extreme weather events	58%
50%	Feel very well or fairly well informed of the things they could do to cope with difficult weather conditions	60%

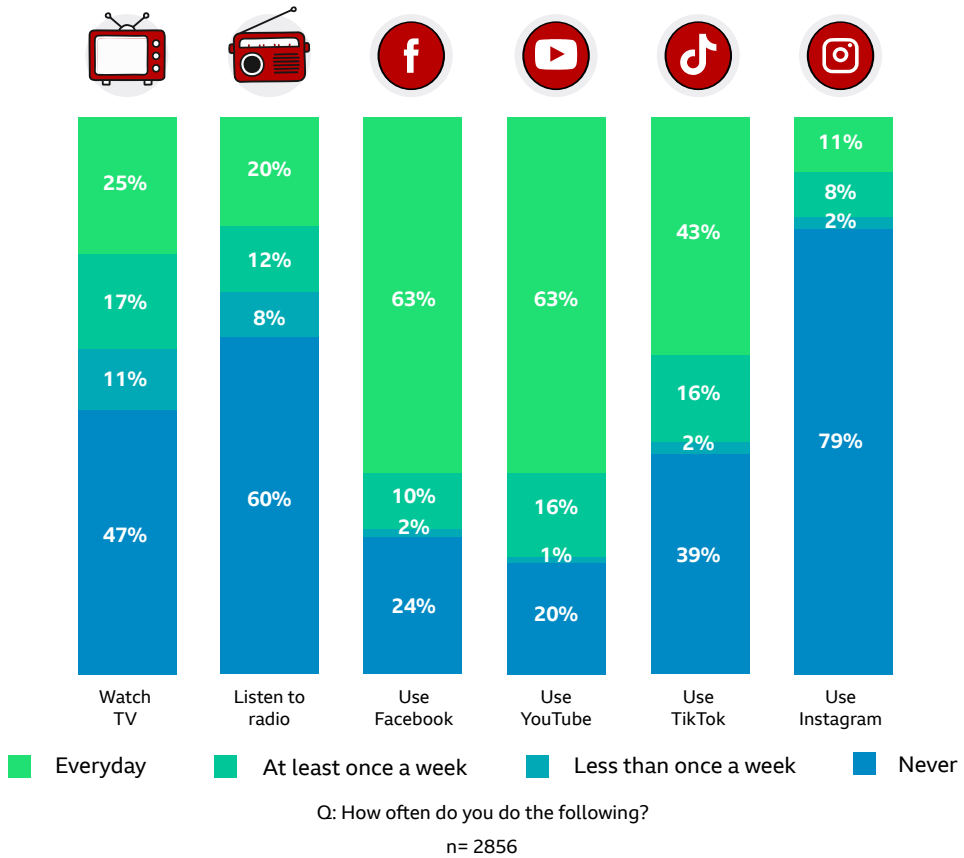
People from Madhesh and Sudurpaschim were most likely to feel informed and capable of coping with difficult weather conditions, while those from Karnali and Koshi were least likely to feel so.

5. Overall media use

8 in 10 Nepali people aged 18 to 80 are using Facebook and YouTube, and 6 in 10 are TikTok users

Younger people, aged 18 to 34, are more likely than 35+ to use Facebook, YouTube and TikTok daily. While women are as likely as men to use Facebook and YouTube daily, they are far more likely than men to use TikTok daily (51% vs. 35%).

Figure 7: Frequency of use of different media



Q: How often do you do the following?

n= 2856

While television use is consistent across provinces, radio use is notably higher among respondents in Karnali (ever use - 78%) and Sudurpaschim (ever use - 81%).

6. Main sources and platforms for weather information

Most Nepali people aged 18 to 80 get weather information from their friends, family, and Facebook, while 37% also access it via weather apps

Source	Overall	Female	Male
Friends	62%	65%	59%
Family	61%	68%	53%
Facebook	59%	58%	60%
Weather apps	37%	32%	44%

n= 2856

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

People aged 65-80 rely more on traditional media than on social media, with 40% getting weather information from the radio, 38% from TV, and only 17% via Facebook.

Men, younger (18-34 years old) and educated (secondary and above) people are more likely to rely on weather apps than women, those aged 35+ and those with no or low education.

6.1 Early warning weather alerts

> "I had planned to work on the field, but since the miking (loudspeaker) said it will rain today, I have postponed it."
>
> Female, Kailali district

The government issues early warning for floods via different channels including SMS.

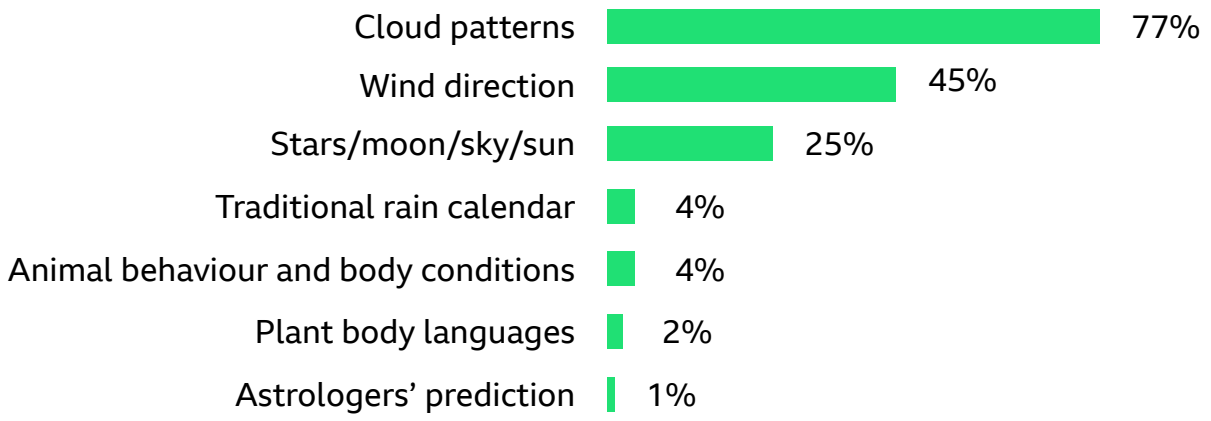
- Nearly 60% of people reported receiving impending bad weather alerts last year.
- 63% of men and 55% of women report receiving them.
- People in Bagmati and those with higher education were also more likely to receive alerts.

However, limitations, such as poor mobile network and the inability of the people to read the message, impact the effectiveness of the SMS alerts.

7. Traditional methods to predict the weather

Communities across Nepal use different traditional methods such as observing cloud patterns, wind direction and animal behaviour to predict the weather

Figure 8: Various traditional methods people use for weather predictions



n= 2856

Q. What do you use to predict the weather?

Participants across provinces reported interpreting the colour and movement of clouds to predict rainfall and storms. In Kailali district, participants said that they distinguish between east winds, believed to bring normal rain, and west winds, associated with heavy rainfall that causes destruction or damage. Participants also described how the behavior of frogs, snakes, ants, ducks, and chickens can signal upcoming rain or flood.

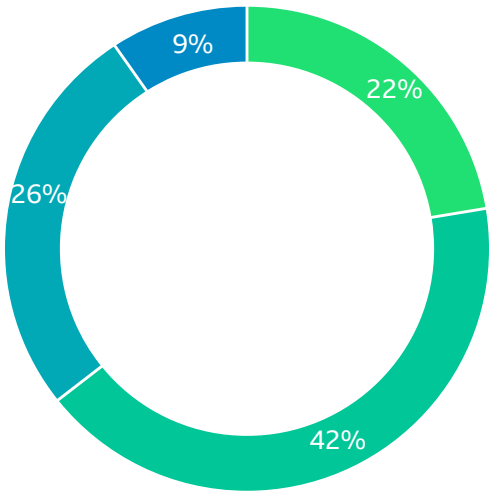
> "When frogs, crabs, and snakes start moving towards the village, we know a flood is coming."
>
> Female, Surkhet district

8. Usage and trust in existing weather services

Though Nepali people aged 18 to 80 are generally interested in weather information, they are yet to develop a habit of checking a weather forecast every day

While 73% are interested in the daily weather forecast, only 22% report checking the weather forecast daily.

Figure 9: Frequency of accessing weather forecasts



Everyday | At least once a week | Less often than once a week | Never

n= 2856

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

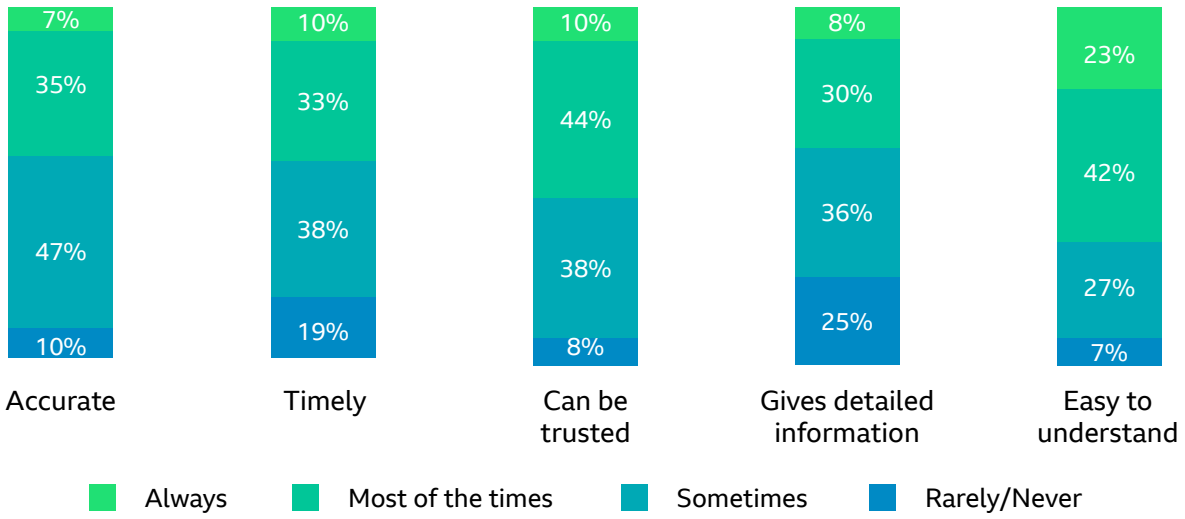
Women are less interested and less likely to access the weather forecast than men

> "I do not deliberately seek weather information on Facebook. It is something I just look at while scrolling Facebook."
>
> Female, Gandaki district

Female		Male
70%	Interested in daily weather forcast	77%
16%	Access forecast daily	30%
42%	Never access forecast	28%

Weather forecasts are generally regarded as easy to understand, however people struggle to understand the meaning of some terminologies used in weather forecasting/warning/advisory

Figure 10: Perception of forecast effectiveness on different aspects



n= 2856

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

Percentage of people who understand terminologies

बदली/Cloudy	70%
मनसुनी बायुको प्रभाव/Effect of monsoon winds	56%
चक्रावत/Cyclone	15%
सापेक्षित आर्द्रता/Relative humidity	11%
नदी तटीय क्षेत्रमा बाढीको जोखिम/ Flood risk in riverbank	82%
आकस्मिक बहाव/Flash flood	46%
सघन जोखिम/intensive risk	24%
गेग्रान बहाव/Debris flow	6%

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

n= 2856

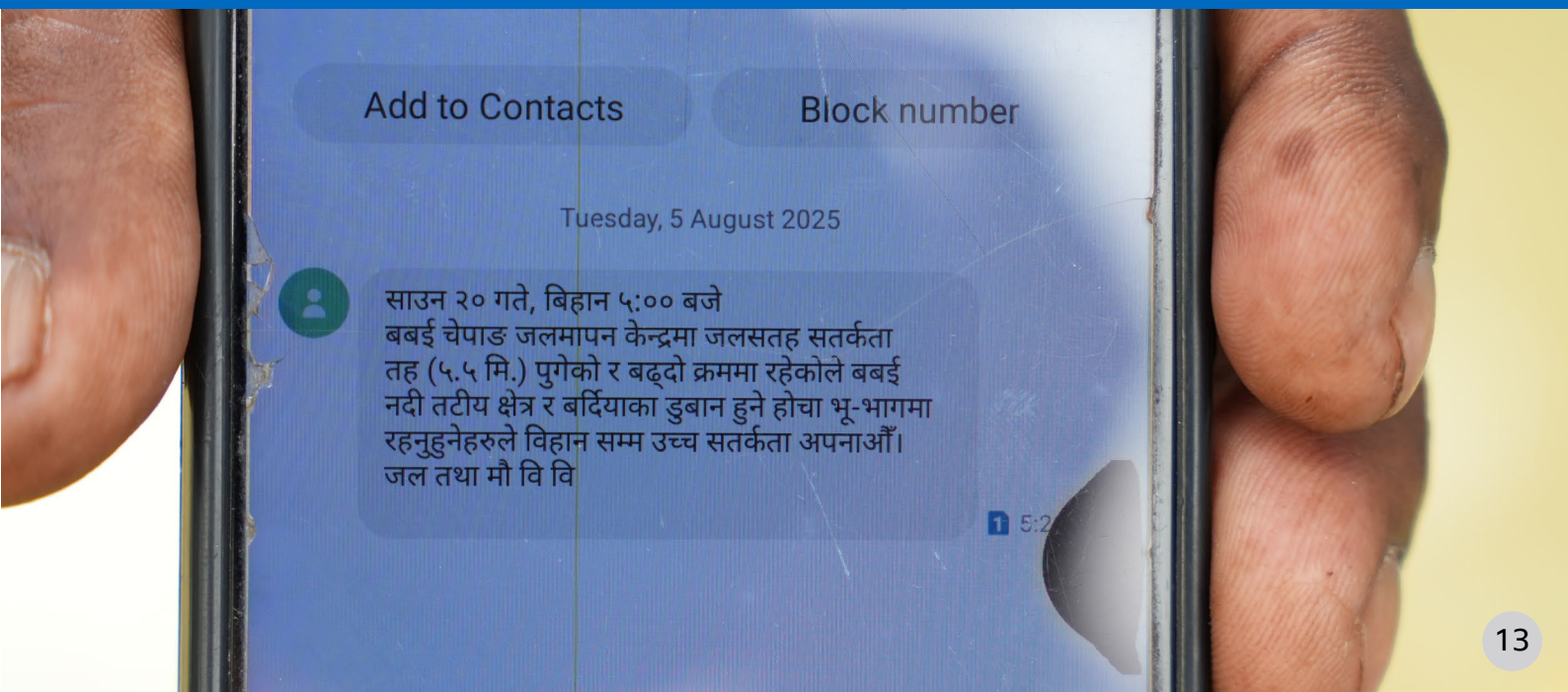
Participants in Jhapa also shared their frustration with vague messages. Without clear, localized information, they said they often ignore these forecasts.

> **“The messages just say rain will occur in the east. But where exactly in the east? The eastern region is vast, are we talking about the hills, or terai? Without more specific information, it’s hard to know whether we should prepare.”**
>
> **Female, Jhapa district**

The focus groups also highlighted a poor understanding of the concept of probability that is used in weather predictions. It was found that people think and want forecasts to be 100% accurate.

Language barriers were frequently raised in the qualitative discussions, particularly in areas like Kailali and Madhesh, where people who speak Tharu, Maithili, or Bhojpuri reported struggling with weather information that are given in Nepali-language.

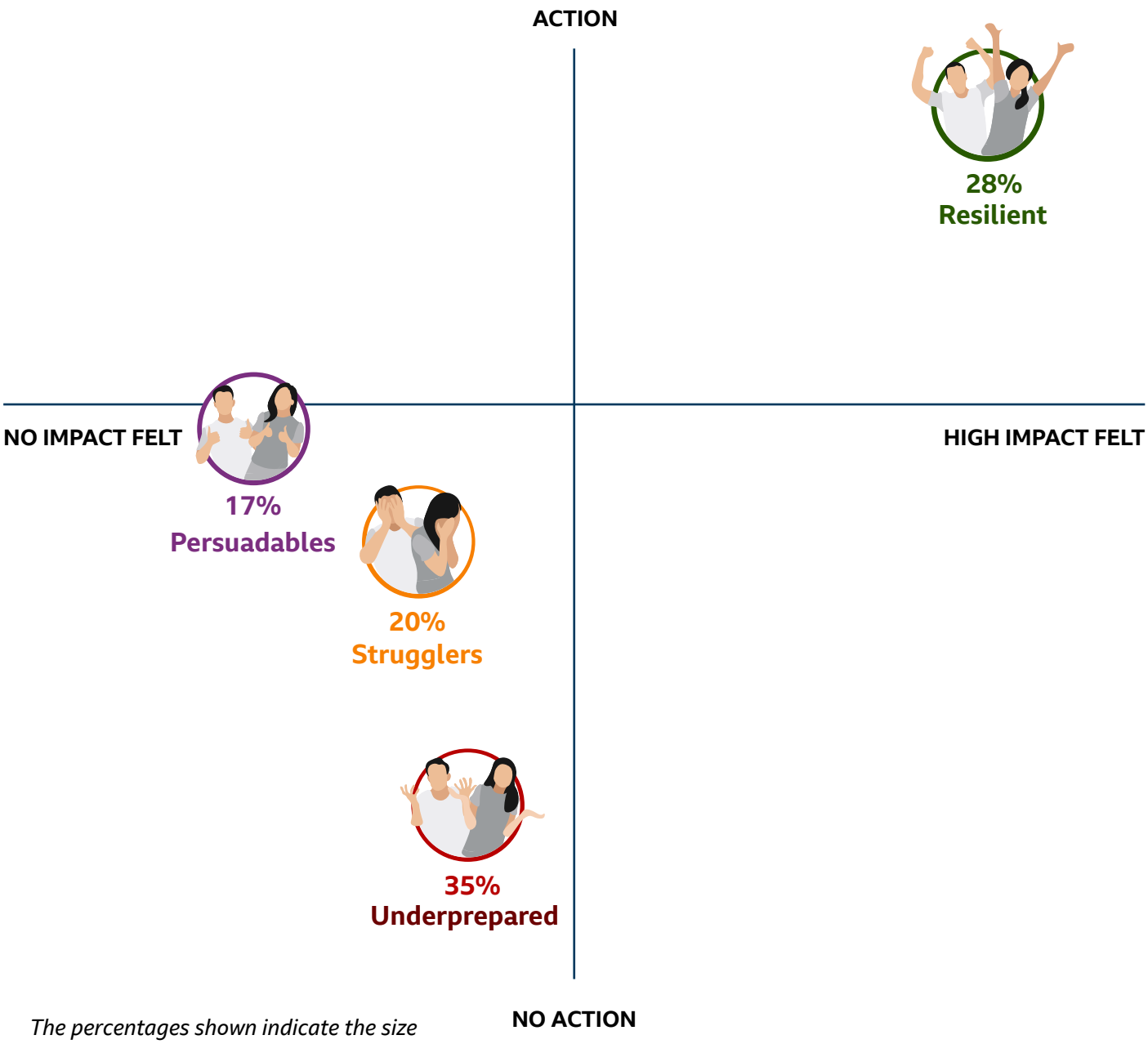
> **“Weather alerts come in Nepali [language], which not everyone understands. It would be better if they were in Tharu [language].”**
>
> **Female, Kailali district**



9. Segmenting audiences for impactful climate communication

Understanding audience profiles is important to help tailor interventions to the specific needs, beliefs, and behaviours of different groups - using their preferred communication platforms. We have analysed survey data using a process called cluster analysis. This analysis identified four distinct audience segments - climate casuals, adaptation strugglers, informed persuadables, and underprepared. Each segment varies in the factors that enable or hinder their ability to respond, and they have different communication needs and can be supported in different ways. These factors are:

- Understanding of climate change
- The impact of extreme weather events on their lives
- The number of actions taken to adapt
- The barriers for adaptive measures uptake
- Perceptions of communal support



The percentages shown indicate the size of each group in the sample.

Below are the descriptions of the four profiles[4]:

Underprepared

"We hear about the weather sometimes, but we don't really do anything unless it causes problems. It's hard to think about these things when there's so much else going on."

What are their characteristics?

Least likely to practice adaptive measures
Low engagement in communal preparedness and/or response activities. Only 13% report doing so. The majority believe (62%) they are informed, but only 8% feel well prepared.

Who are they?
The majority (56%) are women and about 40% living in the Madhesh province. Over 30% are farmers. This group is the least educated, poorest, and financial security is a major priority for them.

What are their communication needs?
Focus on communicating adaptive actions, especially for farmers. Provide clear, actionable steps on how they can prepare, adapt and respond to extreme weather events.

How to reach them?
This group uses digital media more than traditional - 54% use FB daily, 60% YouTube, 42% TikTok, 44% TV and 36% radio.

Strugglers

"We don't usually prepare ahead of time, but when the rain is expected we react quickly to avoid further damage."

What are their characteristics?

Experiences the most barriers to action
Low engagement in communal preparedness and/or response activities. Only 9% report doing so. Less than half (48%) believe they are informed and can cope well with extreme weather, and only 2% feel well prepared.

Who are they?
The majority are women (55%), about 40% are from Koshi province and they are worried about financial security and health.

What are their communication needs?
Highlight practical, cost effective, and easy-to implement adaptive measures. Show ways of how people can work together.

How to reach them?
This group is more likely to use digital media than traditional - 63% use FB daily, 64% YouTube, 40% TikTok, 54% TV and 36% radio.

Persuadables

"We know the weather is changing and it's affecting our crops. If we had more support or training, we could try new ways to protect our land."

What are their characteristics?

The best understanding of climate change
27% report participating in communal preparedness or response activities in the past. The majority (57%) believe they are informed and can cope well with extreme weather events but only 5% feel well prepared.

Who are they?
This group has an equal gender distribution, with 50% of the members aged between 18 and 35, 35% live in Lumbini province and 37% are engaged in farming.

What are their communication needs?
Share specific practical steps tailored to farmers. Emphasize how adaptive actions can help their financial security, job stability, and livelihoods.

How to reach them?
They are media savvy, with 74% using FB daily, 67% YouTube, 44% TikTok, 61% TV and 40% radio.

Resilient

"Long ago, we had big floods that took away whole villages. But now, people have started planting trees near the river and building small barriers, so it has gotten a little better."

What are their characteristics?

Most likely to practice adaptive measures despite feeling barriers
40% report participating in communal preparedness and/or response activities. Around half (51%) feel informed and think they can cope well with extreme weather. Around half (51%) feel informed and think they can cope well with extreme weather.

Who are they?
The majority are men (54%) and 46% women, are most educated, 21% are engaged in business, and 49% reside in Bagmati and/or Gandaki provinces.

What are their communication needs?
Encourage continued and increased adaptive measures that are suited to the needs of people engaged in business.

How to reach them?
They are media savvy - 70% use FB daily, 65% YouTube, 46% TikTok, 60% TV and 48% radio.

[4]These quotes are illustrative and not direct quotations. They have been created to reflect the typical attitudes and experiences of each audience segment based on the research findings.

Recommendations

Based on the findings of this research, the following are recommendations for interventions on effective communication of weather and climate information that are focused on encouraging Nepali people to take positive actions to prepare for and deal with the impacts of the extreme weather events:

Use appropriate media channels to reach people. For instance, for reaching younger people (aged 18 to 34) social media works well. For reaching farmers, radio and Facebook are suitable channels of communication. Older women may also be reached by radio and television.

Focus on preparatory action. Programming should support people in moving from simply knowing about adaptive measures to implementing those behaviours in real life, such as preparing go-bags and crop/livestock insurance. Encourage community preparedness through programmes that promote working with others in the community to prepare for extreme weather.

Support better understanding of weather forecasts. Programming should include content that helps people understand that forecasts are based on probabilities and introduces people to scientific forecasts. This will help increase trust in the existing weather and climate information services. Acknowledge the traditional approaches such as observing clouds, stars, sky, etc. that people are using to predict weather.

Target specific audiences. The audience segments in this report highlight how to tailor communication for different groups. Women were more likely to fall into the 'underprepared' and 'struggler' profiles—groups that often face barriers to accessing weather information and feel less prepared to respond to extreme weather events. To better support these women, engagement should focus on their key concerns, particularly financial security and family health. These segments also show low participation in community preparedness, presenting an opportunity to encourage greater involvement.

To reach people with disabilities, traditional media and their personal and social networks need to be leveraged because they rely on these resources for weather information.

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[ii]Ministry of Home Affairs. (2019). Nepal Disaster Report 2019. Government of Nepal. Available at: https://www.drrportal.gov.np/uploads/document/1640930046Nepal%20Disaster%20Report%202019.pdf

[iii]Karki, R., Talchabhadel, R., Aalto, J., & Baidya, S. K. (2017). New climatic classification of Nepal. Climate, 5(1), 4. https://doi.org/10.3390/cli5010004

[iv]Led by the Department of Hydrology and Meteorology (DHM), the system includes real-time data monitoring, flood forecasts, and dissemination through SMS, radio, and community networks . Landslide EWS have also been piloted in some hilly areas but face technical and coverage challenges .