Household coping mechanisms for rural WASH in Nepal

Insights and recommendations

October 2024

Households and communities are on the frontline in responding to the impacts of climate hazards on water, sanitation, and hygiene (WASH). Coping mechanisms – actions that individuals, households and communities take to deal with a problem and satisfy a need in the near term – are the first (and sometimes only) way that people living in rural areas can address disruptions to their WASH services caused by flooding, drought, landslides, and cold spells.

This visual report presents photos of household coping mechanisms for WASH captured by women, men, people with disabilities and their caregivers living in the Dailekh and Sarlahi districts. Both districts exhibit distinct geographic and climatic variations. In Dailekh, characterised by its hilly terrain and cooler temperatures, communities primarily rely on spring water sources and gravity-fed piped water supply systems. These systems are susceptible to stress during extended dry periods, landslides during heavy monsoons, and the declining flow of springs in many areas. In contrast, Sarlahi is located in the plains (the Terai belt), where communities rely on groundwater, primarily from self-supply, point-source systems. Sarlahi experiences hot summers and is prone to extended dry periods and floods during monsoons. The report provides recommendations for WASH stakeholders on better supporting rural households to deal with climate impacts on WASH.

It is important to note that governments are the duty-bearer of the human rights to water and sanitation. They are obligated to take steps to ensure everyone has access to safe, sufficient, acceptable, physically accessible, and affordable water and sanitation services. Coping mechanisms often offer only temporary relief to households. Therefore, while supporting household coping mechanisms is important for helping people access WASH in the near term, it is often not enough to resolve long-standing issues.

Longer-term climate change adaptation support and improved WASH service delivery are required to enable communities to live safely under climate change.

A research partner in Sarlahi reports on climate impacts on WASH facilities and services. Photo credits: SNV.

In Nepal, SNV and UTS-ISF conducted research involving 13 households. Participants were asked to take photographs showing how they manage and adapt their access to WASH services during periods of extreme weather, including very wet (June-July 2023) and very dry conditions (April-May 2024). SNV and UTS-ISF also conducted follow-up interviews with them.

The succeeding pages describe each coping mechanism in more detail – as seen (in photos) and told (in captions) by participating community members. Based on community members' reports, SNV and UTS-ISF formulated recommendations for the following stakeholders:

- **Duty-bearers:** Local government authorities (elected leaders at Rural Municipality [RM], and ward level and government officials)
- **Rights-holder organisations (RHOs):** Organisation of People with Disabilities (OPDs)
- **Water supply service providers:** Water Users and Sanitation Committees (WUSCs)

A further discussion of the coping mechanisms and the background of this research initiative is available at SNV and UTS-ISF, *Household coping mechanisms for rural WASH: Bhutan and Nepal*, The Hague, SNV, 2024.

SNV and the Institute for Sustainable Futures at the University of Technology Sydney (UTS-ISF) identified six common categories of rural WASH coping mechanisms from a study conducted in Nepal and Bhutan.

'During the monsoon, heavy rain can cause blockages in the water pipe. We store drinking water in large drums and small jerry cans (yellow container) as a precaution.'

Woman (Dailekh)

'During the rainy season, landslides can damage the water pipes. So, we collect water in buckets and drums.'

Man with physical disability (Dailekh)

'In this hot and dry weather, water sources have dried up resulting in limited water availability. To fulfil our drinking needs, we collect water in tubs and store it inside the house.'

Man (Sarlahi)

Storage

What households and communities do: In both districts, they store water to ensure an adequate supply is available during water shortages and, in Dailekh, when contamination from heavy rainfall is expected.

Consider this: Water may not be stored safely, and stored water can encourage the breeding of vectors.

Recommendations for key stakeholders:

- Local governments, through coordination of their WASH Focal Person and Health Section with its network of Female Community Health Volunteers (FCHVs), to promote behaviour change communication campaigns on safe water storage and hygienic household water management behaviours.
- WUSCs to promote awareness of safe household water management and storage for households within their service area.
- Local governments, through coordination of their WASH Focal Person and Health Section with its network of Female Community Health Volunteers (FCHVs), to promote behaviour change communication campaigns on sharing the burden of water journey between men and women (including water collection, storage, safe management and treatment).
- Local governments, through coordination of their Disaster Risk Reduction Management (DRRM) Committee, WASH Focal Person, and the Women, Children, and Senior Citizen Section with its Disability Help Desk to capacitate the RM OPD network, the local government's Ward level representatives, and WUSCs for preparedness and response, e.g., by communicating early warnings to communities to encourage storage before climate hazards (especially landsliding and flash floods) occur.

'With water sources dried up, we're struggling to manage water by collecting from alternative sources. As a result, toilet cleaning gets less priority.'

Woman with low income (Sarlahi)

'We have a tap in our house supplying river water...but we avoid drinking it during the rainy season when it tends to get muddy. To obtain drinking water, we have to walk uphill for 20 minutes to reach a well.'

Woman with low income (Dailekh)

'We rely on a tap in our neighbour's yard, where we pay to access clean drinking water. My daughter-in-law usually collects the water since I'm unable to do so. If the tap runs dry, we resort to fetching water from a nearby spring source, which takes roughly 10 to 15 minutes to reach.'

Woman with visual impairment (Dailekh)

Diversification

What households and communities do: In both districts, they access different water sources (e.g. rainwater, shared taps, springs, unimproved sources) and toilets (e.g., a neighbour's toilet) when the primary options are unavailable due to climate hazards.

Consider this: Some of these alternatives may be unsafe, and conflicts can arise when diverse groups access the same option.

Recommendations for key stakeholders:

- Local governments, through coordination of their WASH Focal Person and Health Section, support their Ward level representatives to identify the most commonly used alternative water sources, carry out sanitary inspections (including water quality testing), and take action to protect these alternative sources and raising awareness regarding the quality of water.
- Local governments, through coordination of the Chief Administrative Officer (CAO), WASH Focal Person, WUSCs, and relevant Ward representative, to complete registration of all water sources being used/or planned for use for water supply service provision to prevent disputes over water sources.
- Local governments, through coordination of the Justice Committee and relevant Ward Chairperson, to facilitate the resolution of any disputes and conflicts rising over water sources.

'We store water in copper pots, ensuring a reliable supply. We consume the filtered water for drinking purposes. The use of a filter is a consistent practice of our family.'

Man with physical disability (Dailekh)

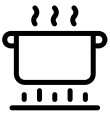
'We utilise a candle filter to purify the water collected from the tap for drinking purposes. For cooking, we directly use water from the tap, which is filtered by using a cloth to remove sediments.'

Woman (Dailekh)

'These days, our water supply taps have been dispersing reddish water due to leaves contaminating the source. To ensure safe drinking water, we fetch water from this well and filter it before use.'

Woman with low income (Dailekh)

Household water treatment



What households and communities do: In both districts, water is treated through filtration, boiling, and a cloth-straining method for settling solids.

Consider this: The strain-and-settle method does not adequately treat microbial contamination to make water safe for consumption.

Recommendations for key stakeholders:

- Local governments, through coordination of their WASH Focal Person and Health Section with its network of FCHVs, conduct behaviour change communication campaigns in line with their BCC strategies in diverse formats that will reach people with low levels of literacy, people with disabilities and other groups, to promote consistent and effective household water treatment, year-round, to provide safe drinking water at household level. The campaigns should be especially conducted during high-risk periods (e.g. the first rainfall after a lengthy dry period, during the wet season) when contamination is more visible.
- Local governments, through the Health Section, carry out water quality surveillance during high-risk periods and present their findings to the local government's Executive Board for further decisions and actions via their responsible sections.

'In rainy season, drying menstrual cloths becomes difficult, it takes time to get dry. So, during rainy season, I purchase pads from local women entrepreneurs in my village. They vend their products through door-to-door visits.'

Woman (Sarlahi)

'We used [disposable] sanitary pads instead of clothes during dry and hot weather, because of water scarcity to wash clothes. We bury the used pads in a pit as shown in the picture.'

Woman with low income (Sarlahi)

'In regular weather conditions, I use a clean cloth for menstrual hygiene. However, during the rainy season, I purchase pads from women entrepreneurs in my village because it's hard to dry cloth in the rain, and using wet cloth can cause health problems.'

Woman with physical disability (Sarlahi)

Buying and selling

What households and communities do: In both districts, they buy products like water storage containers, water filters, electric kettles for boiling water, and disposable menstrual hygiene pads to help overcome climate impacts on WASH.

Consider this: Markets may not always be affordable or accessible, especially for low-income groups, and may not offer products that are suitable for people with disabilities.

Recommendations for key stakeholders:

- Local governments, through coordination of their DRRM Committee, WASH Focal Person, and the Women, Children, and Senior Citizen Section with its Disability Help Desk, coordinate with their Ward level representatives and OPD networks to provide targeted subsidies for people with disabilities or other vulnerable groups for certain products and services before, during or after disaster events that help people cope.
- Local governments, through the Women, Children, and Senior Citizen Section with its Disability Help Desk, coordinate with the RM OPD network to reach out to people with disabilities and their families/caregivers to ensure support required during and after disasters to get the products they need.
- Local governments capacitate local female entrepreneurs to develop, stock, and promote affordable products that people commonly use to deal with climate impacts on WASH, including products suitable for people with disabilities.

People in the community of Guransh, Dailekh, faced structural damage to their intake which disturbed the supply every year, especially during the rainy season. To get rid of this problem, they upgraded the system and protected the water source from soil erosion and landslides by applying low-cost bio-engineering techniques and planting vegetation in the source area to conserve the water.

This effort was undertaken after receiving behaviour change messages from SNV's programme on climate-resilient water safety planning.

Communal pooling

What households and communities do: In Dailekh, they contribute labour and money to maintaining shared infrastructure, like a community water supply, and share information about climate risks and risk-reduction actions.

Consider this: Community participation and sharing are less effective when community social cohesion is weak and may not benefit members who are excluded from decision-making.

Recommendations for key stakeholders:

- Local governments integrate source protection and potential recharge options as part of broader catchment management for resilient water supply services. They reflect this in the local government's strategic WASH Plan and use it to allocate budgets in the LG's annual budget policy and plan.
- Local governments establish and operationalise inclusive WASH Coordination Committees at the Ward and RM levels to ensure the participation of all stakeholders, including women, minority groups, and people with disabilities, in decision-making and promote community cohesion.
- Local governments, through coordination of the WASH Focal person, their Ward level representatives, and WUSCs, develop climate-resilient Water Safety Plans for water supply systems to identify climate risks, take mitigative actions, and monitor regularly.

'There is a toilet situated 5-6 m away from our house. During the rainy season, the trail to the toilet can be damaged by rain. So, we clean the path before monsoon starts, ensuring ease of access to the toilet.'

Woman with low-income (Dailekh)

Private WASH modification

What households and communities do: Make modifications or improvements to a private water point or sanitation facility that is not shared with the rest of the community.

Consider this: In some cases, these actions could negatively affect other community members (e.g., improper wastewater drainage can cause environmental nuisance for others).

Recommendations for key stakeholders:

- Local governments, through the WASH Focal person, provide technical advice to community members on the design and management of private latrines and water points that are suitable for rural areas and adapted to frequent climate hazards (cost-effective, accessible, and locally manageable options).
- Local governments, through coordination of the WASH Focal Person and Health Section, conduct campaigns in line with their BCC strategies to make progress on indicators for Total Sanitation, whereby all households understand the importance of undertaking private WASH interventions that contribute positively to the community as a whole.

SNV Impact that matters

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This visual report documents lessons and insights from recent learning and research activities in rural water and sanitation services, conducted jointly by SNV, UTS-ISF, and CBM Australia and supported by the Australian Department of Foreign Affairs and Trade's Water for Women Fund. It was published as part of SNV's Towards Climate Resilient Inclusive WASH Services project in Nepal and Bhutan. Jeremy Kohlitz, Leanne Casey, and Avni Kumar of UTS-ISF prepared this report, with contributions fromSabitra Dhakal, Ratan Budhathoki, Ambika Yadav, and Nadira Khawaja of SNV in Nepal, and Isabel Calvert of CBM Australia. Gabrielle Halcrow of SNV reviewed the report.

Water For Women

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