Behavioural insights on climate information uptake in Tanzania, Burkina Faso, Malawi and Zambia

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Presentation Structure

In this presentation, we will share:

- Brief findings from case studies across Tanzania, Malawi, Burkina Faso, and Zambia based on the research question:

How can the uptake and use of climate information be enhanced at the community level?

- 7 key barriers across all case studies
- An outline of potential opportunities to improve the uptake of climate information in these countries

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BASIN: Behavioural Adaptation for water Security and INclusion

- Water insecurity is a major pathway through which climate change impacts humanity. BASIN project uses behavioural approaches to understand challenges towards improving decision-making: https://www.lse.ac.uk/granthaminstitute/basin/
- BASIN includes 8 partner institutions, funded by FCDO & IDRC's CLARE programme:

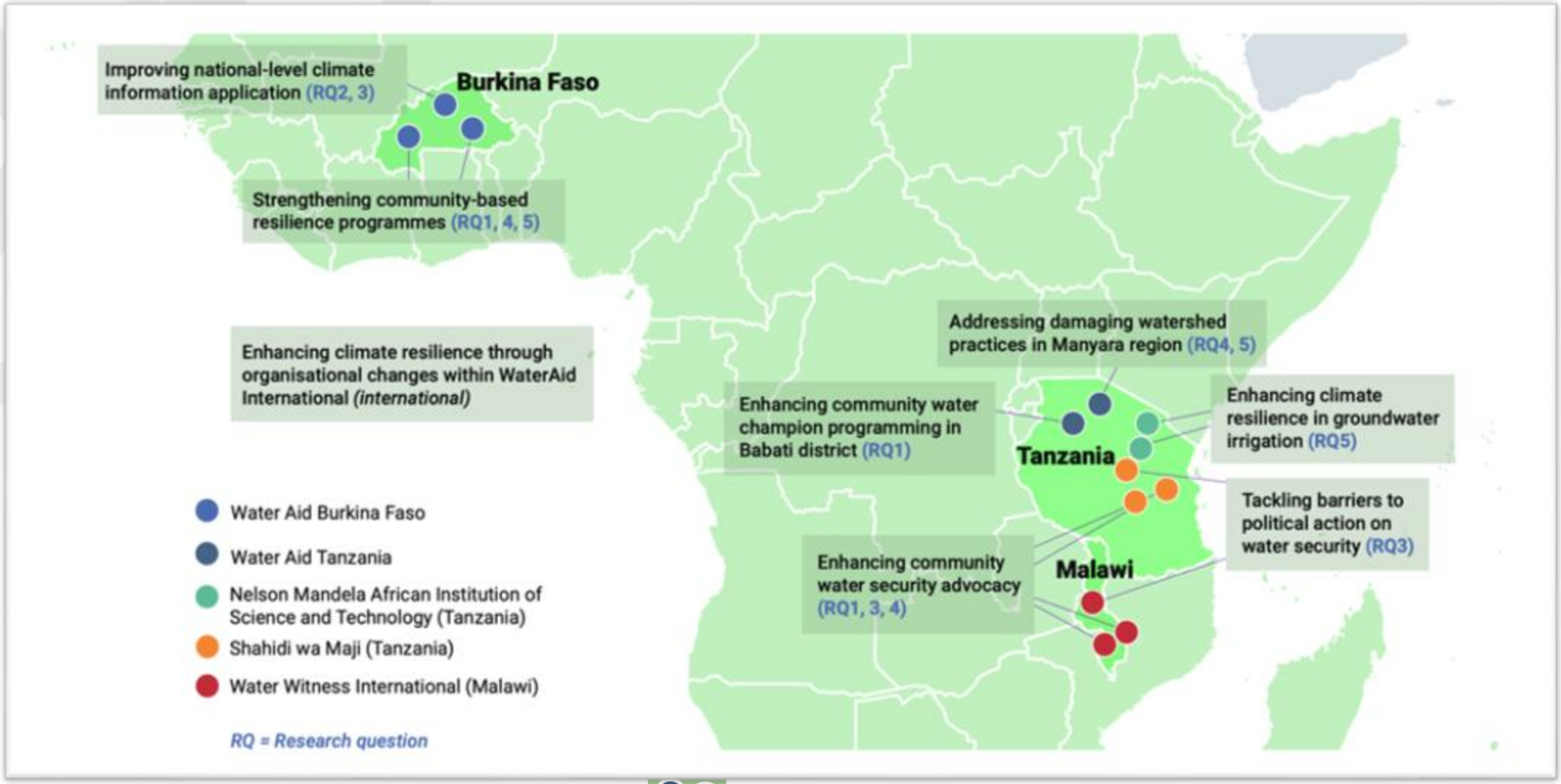
Kulima Integrated Development Solutions	London School of Economics and Political Science	Nelson Mandela African Institute of Science and Technology
Shahidi wa Maji - Tanzania	University of Malawi	Water Witness International
WaterAid - Burkina Faso, Canada, Tanzania, UK	UNU-Institute of Water, Environment and Health	

The BASIN Research Questions

- Through a co-design process with all partner institutions, there was agreement of focus on 5 key project research questions:

1. What individual and structural determinants influence sustained engagement of community champions/Mashahidi/relays?
2. How do you enhance uptake of community produced water-climate information by national authorities from basin authorities?
3. How do you enhance a) the response of local officials to communities' water security and adaptation needs, and b) the accountability of national level decision makers to water and climate related policies?
4. **How can the uptake and use of climate information be enhanced at the community level?**
5. What determines adoption of adaptation behaviours by community members, and what behavioural levers might influence these?

BASIN Case Studies and Research Questions



** Zambia is a recent addition to the BASIN Case Study portfolio*

Tanzania: Mvomero and Mpwapwa Districts

- TMA generates highly accurate information and early warning messages. But the information has not yet helped to reduce the risks of climate-induced hazards among the most vulnerable groups.
- Data collected from 251 households and 38 Key Informant Interviews with subsistence farmers and pastoralists

- 56% of respondents (78% women) are **unaware** of existing climate information and they don't rely on it to guide their livelihoods.

- Available Information: daily, weekly, and seasonal forecasts and hazard warnings accessed only through Radios, TVs, Social media, and farmSMS.

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Research by: Shahidi wa Maji

Tanzania: Mvomero and Mpwapwa Districts

Some identified barriers to climate information uptake:

- Despite the availability and access to scientific information, 73% believe traditional forecasts through elders are more accurate, and more localised than scientific information.
- Many would like to see the forecast mentioning their villages instead of at the District level.
- Majority complain the information is usually difficult to understand, especially among illiterate communities.

- **Key barriers to uptake**: illiteracy and limited access to devices (TVs, Radio, and Mobile phones); generic/non-localised CI; role of religion/distrust in scientific knowledge; low local support systems.

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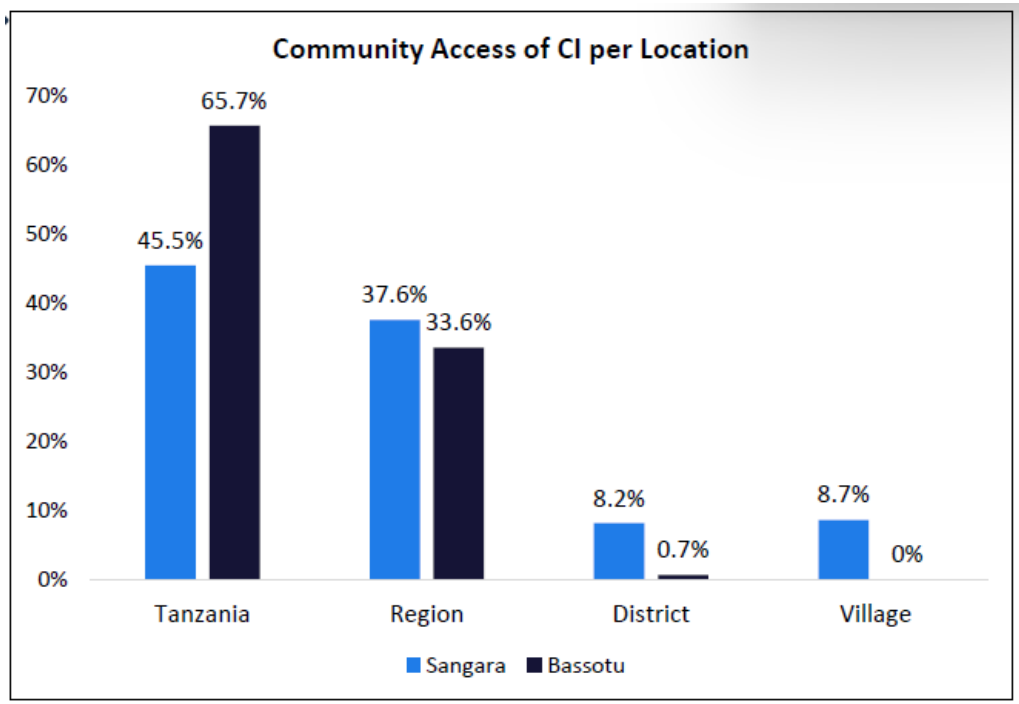
Research by: Shahidi wa Maji

Tanzania: Hanang District (Bassotu Village)

- Data collected from 387 household survey, 37 KIIS and 9 focus groups discussions.
- Community members indicated indigenous knowledge of climate variability (temperature and rainfall patterns)
- Community respondents unaware of existing CI: 44.7% in Bassotu & and 28.2% in Sangara village
- Access to location-specific CI crucial for effective local planning, adaptation, and water security: Most respondents (45.5% in Sangara & 65.7% in Bassotu) reported that CI not downscaled to village-level.
- **Available CI:** daily, weekly, and seasonal forecasts are accessed through Radio, TV, and Mobile phone.
- Reliance on indigenous knowledge to decide on their livelihoods security, agriculture etc.



Research by: WaterAid Tanzania

Tanzania: Hanang District (Bassotu Village)

Key barriers to uptake:

- Limited access to reliable sources
- Limited accessibility of CI data
- Complexity and lack of understanding
- Lack of localized/downscaled CI data
- Trust issue of CI
- CI is not timely disseminated

Looking ahead to behavioural changes:

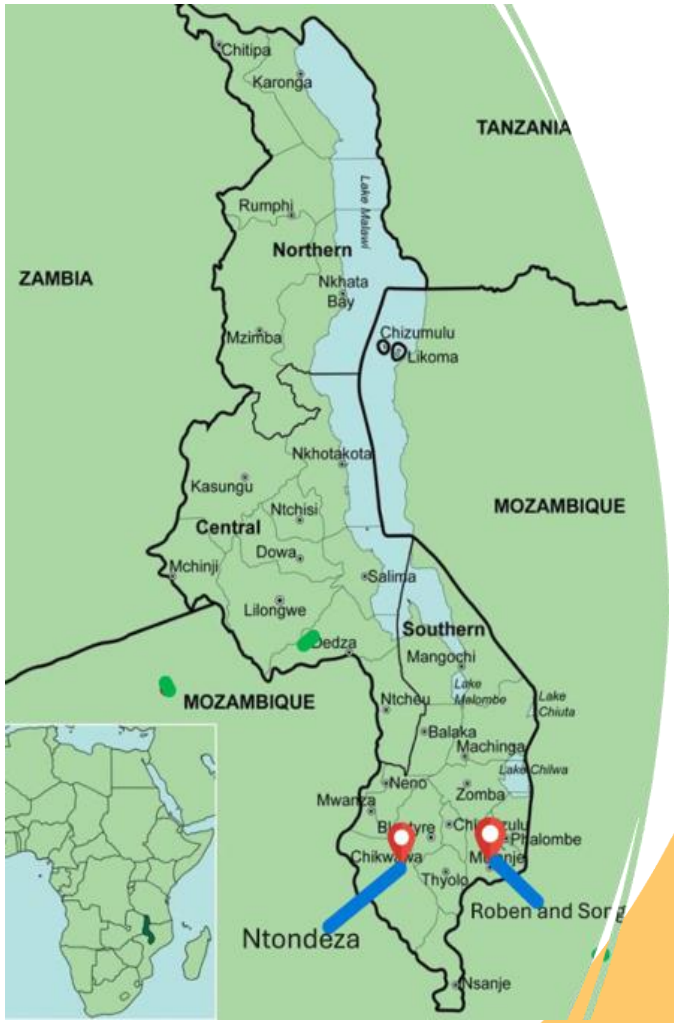
- Co-design with TMA on the installation of weather stations to support the uptake of CI to more than 5,000 people.
- Train 10 Champions on Observation, Collection, and Transmission of weather parameters (Rainfall)

There is only one TMA weather station at Babati DC office in Manyar region.

Research by: WaterAid Tanzania

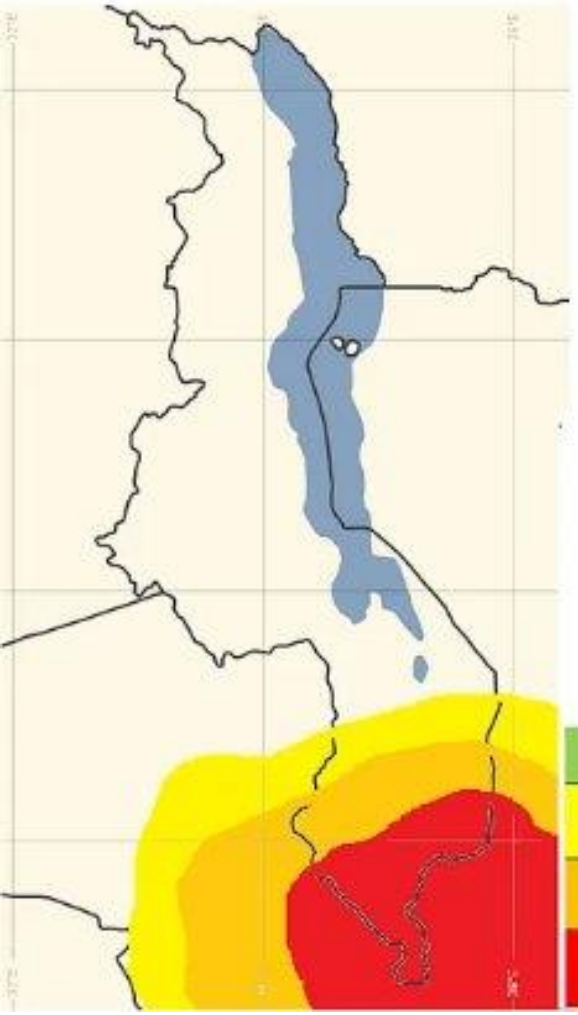
Malawi: Chikwawa and Mulanje Districts (WWM)

- Data collected from 255 participants and 21 key informants across 3 communities (noting gender & disability) of Roben, Ntondeza and Songwe that experience tropical and semi- arid climate with frequent flooding and droughts.
  - Mainly agriculture-based economy
- Climate Information and early warnings shared via:
  - SMS, Radios, Television, Newspapers, Social media, Community meetings, Megaphones, moving vehicles broadcasting climate messages. Information via: Department of Disaster Management Affairs; Agriculture Department, Police and Health workers (provide opportunity to ask questions)
  - Religious gatherings and Indigenous methods are key: Traditional methods like observing natural signs such as clouds or changes in wind patterns; Drums alert community of rising water. Elders also play a role in sharing historical or traditional weather predictions;



Research by: WaterWitness Malawi

Potential impact areas



Warning Key

Likelihood	Minimal	Minor	Significant	Severe
High		2	6	10
Medium		1	5	9
Low			4	8
Very low			3	7

Impact

- 24hr Rainfall <10mm, winds are Light - Wind felt on face, leaves rustle.
- 24hr Rainfall (10-29mm) Winds are moderate - dust, leaves and loose paper lifted, small tree branches move
- 24hr Rainfall (30 and 49mm) possibility of flash floods in areas with poor drainage system. Winds are strong - Larger tree branches moving.
- 24hr Rainfall greater than 50mm, Possibility of flash floods. Gale winds - Structure damage, roofs blown off.

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MINISTRY OF NATURAL RESOURCES AND CLIMATE CHANGE

DEPARTMENT OF CLIMATE CHANGE AND METEOROLOGICAL SERVICES

WARNING ON SEVERE TROPICAL CYCLONE CHIDO

UPDATE: Date and Time of issue: Monday 16TH December, 2024; 10:00am.
Issue No.TC2024/25-09

The Department of Climate Change and Meteorological Services wishes to update the public that **the remnants of Tropical Cyclone Chido are over Southern Malawi. The central pressure is currently at 1000 hPa with maximum gusty winds reaching 65km/hr at times. The remnants of Tropical Cyclone Chido are expected to continue weakening while moving at 22km/h towards the west. It is likely to exit Malawi by this afternoon.**

The remnants of Tropical Cyclone Chido may still bring heavy rainfall and damaging winds, which may lead to infrastructure damage, flash flooding, and other impacts. Areas on the forecasted path of the Cyclone in Malawi still remain: **Mangochi, Machinga, Balaka, Zomba, Mwanza, Neno, Mulanje, Phalombe, Thyolo, Blantyre, Chiradzulu, Ntcheu, Dedza, Nsanje and Chikwawa.**

The Department of Climate Change and Meteorological Services will continue to monitor Cyclone Chido and inform the nation accordingly.

Advisories:

- **Move to higher grounds immediately and follow evacuation orders when issued.**
- **Examine buildings to ensure that they can withstand the strong winds; otherwise, it is recommended to avoid weak structures especially today.**
- **Ensure that drainages and waterways are free of obstructions.**
- **Pay attention to falling trees and power lines.**
- **Stay away from rivers and streams as may rise rapidly and become dangerous during heavy rains.**
- **Avoid travelling during stormy weather; if possible, as driving in strong winds can be dangerous.**

Next update will be issued this afternoon, 16TH December, 2024.

For further information, contact:
The Director, Department of Climate Change and Meteorological Services P.O. Box 1808, Blantyre. Tel :(265) 882 266 579 Fax: (265) -1- 822 215Email: metdept@metmalawi.gov.mw Web: www.metmalawi.gov.mw
Facebook: ***Department of Climate Change and Meteorological Services***, WhatsApp: +265 995 155 050

Malawi: Chikwawa and Mulanje Districts

Key messages shared:

- Community members use climate information and early warning to guide climate-smart agricultural practices and to prepare for upcoming hazards
  - Make evacuation plans and consider the elderly and persons with disabilities
- Early warnings guide decision making that informs livelihood activities to engage in.
  - Warnings about storms/heavy rains prompt households to secure roofs or cover walls with plastic to prevent collapsing.
  - Businesses and schools advise employees and students to stay home during heavy rains/floods
  - Monitor weather patterns and move to higher lands.

Research by: Water Witness Malawi

Malawi: Chikwawa and Mulanje Districts

Key barriers to uptake:

- Late information due to government procedures and poor roads in hard-to-reach areas
- Community members reluctant to use climate information as predictions not always accurate
- Wider lack of understanding, EWS/Info access

Looking ahead to behavioural changes:

- Improving awareness: improved attendance at meetings; Annual bonuses to encourage use
- Increasing reach through megaphones, drama performances for visually impactful messaging; government awareness campaigns and training sessions in schools and communities
- Leaders to set examples by using climate information, as seeing tangible benefits from them motivates others to do the same

Research by: Water Witness Malawi

Malawi: Chikwawa and Mulanje Districts (Uni Malawi)

- Data collected in Roben, Ntondeza and Songwe:
  8 KIIs, 18 IDIs, 7 FGDs, 332 H/H members

Research by: University of Malawi

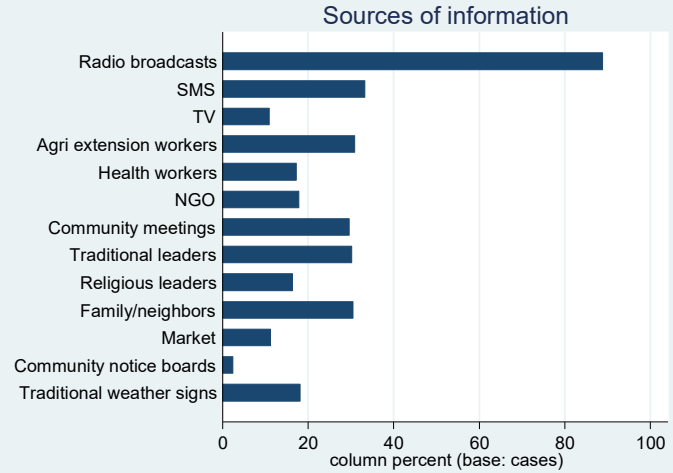
Malawi: Chikwawa and Mulanje Districts (Uni Malawi)

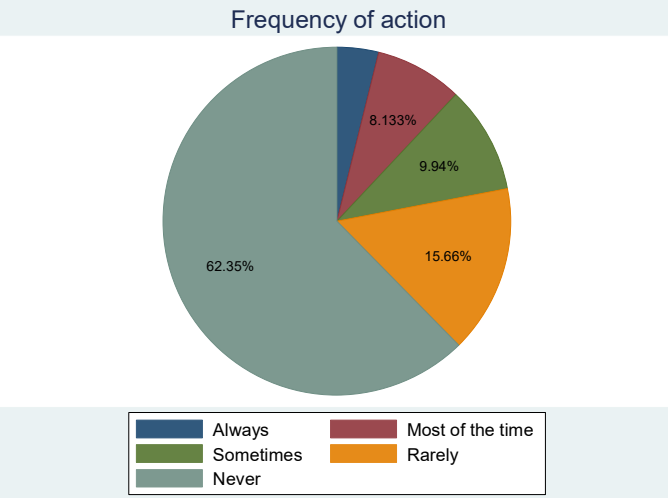
Research Question: *How do different communication channels and information formats enhance translation of climate information into adaptive behaviours?*

Finding 1: Climate information access vs Action gap

- 89% access climate information (primarily radio), but only 38% ever take action
- Trust built on past accuracy (81% of responses) and educational credentials (33%)
- Decision-Making is Relational and Relevance of information is based on utility

- **Key barriers to uptake**: Lack of tools (52%), insufficient finances (44%), distrust (32%)





Research by: University of Malawi

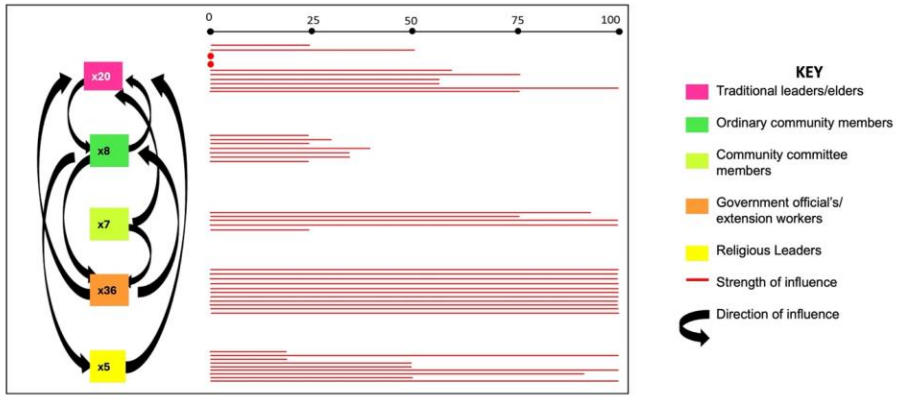
Malawi: Chikwawa and Mulanje Districts (Uni Malawi)

Research Question: *How do community power structures and influence affect decision-making around water and climate adaptation?*

Finding 2: Community power dynamics variations

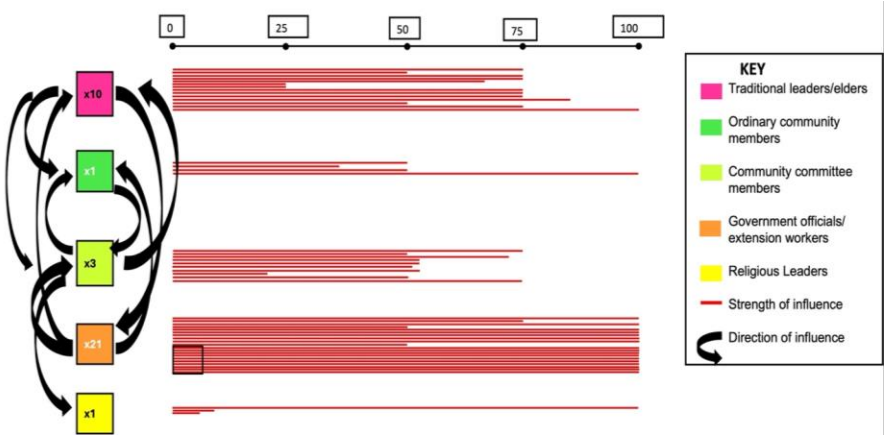
MULANJE: *Distributed influence model*

1. Government officials: 47% influence
2. Traditional leaders: 26% influence
3. Community members: 20% influence (higher participation)



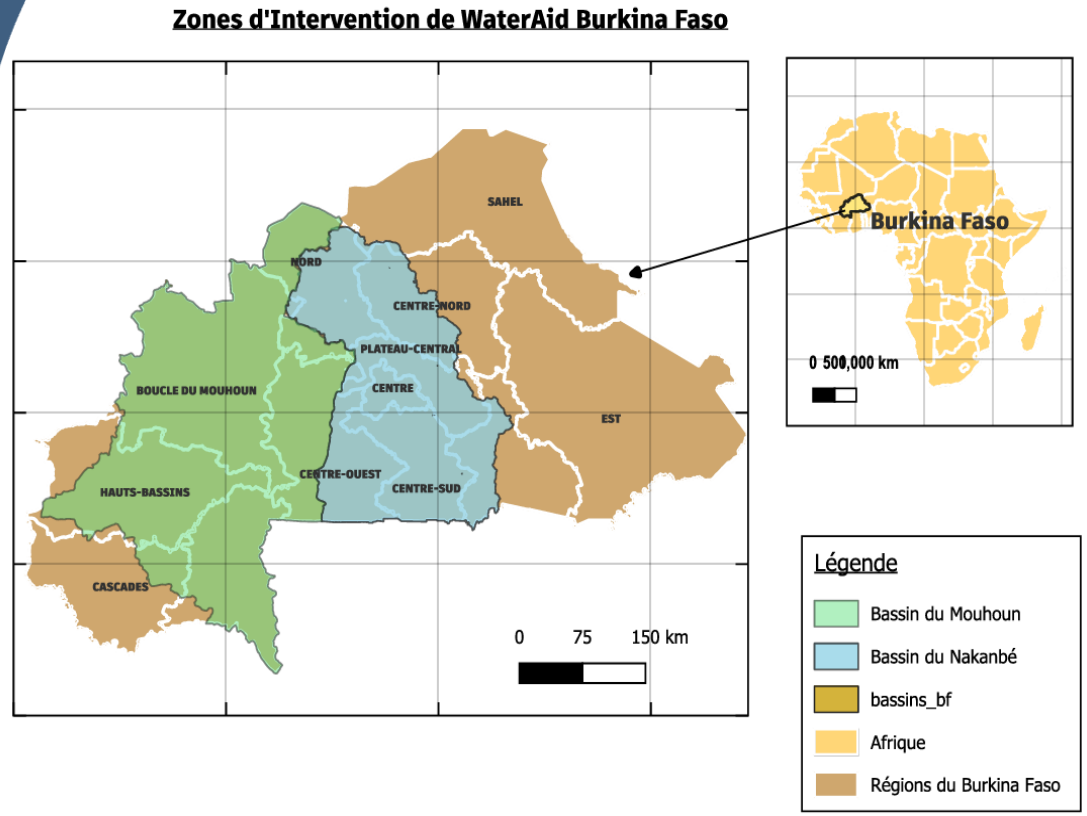
Chikwawa: *Centralised influence model*

1. Government officials: 58% influence
2. Traditional leaders: 28% influence
3. Community members: 14% influence (limited participation)



Research by: University of Malawi

Burkina Faso: Research from 20 communities



2 Data collection: qualitative and quantitative

Types of Sample	# of communities	SWRA area	No SWRA area	Total	Female	Male
Quantitative	12	62	102	164	53	111
Qualitative	20	72	42	114	34	80

SWRA: Securing Water Resources Approach

Methods:

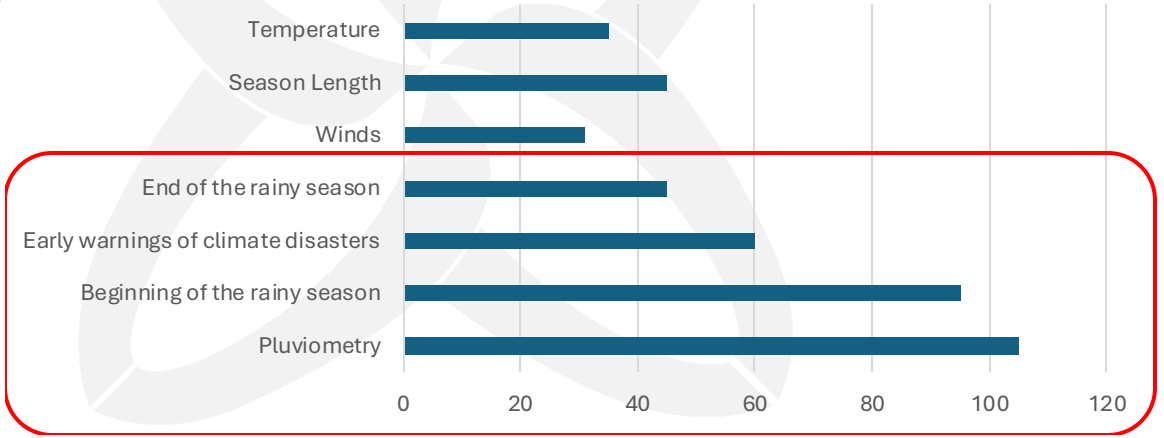
- Quantitative data from: Household Heads
- Qualitative data from: Household Heads & Leaders

- Across various climatic zones with different levels of agricultural drought (noting gender & disability)

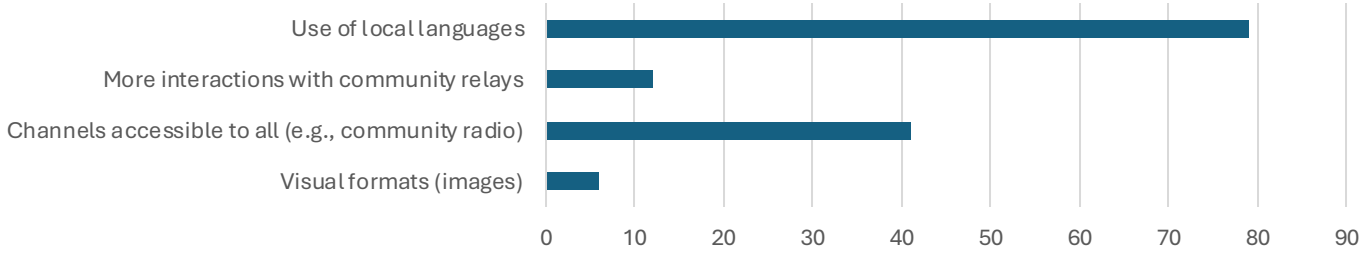
Research by: WaterAid Burkina Faso

Burkina Faso: Findings

Types of climate information that you consider most useful for your household



In your opinion, how could climate information be better presented or communicated?
?



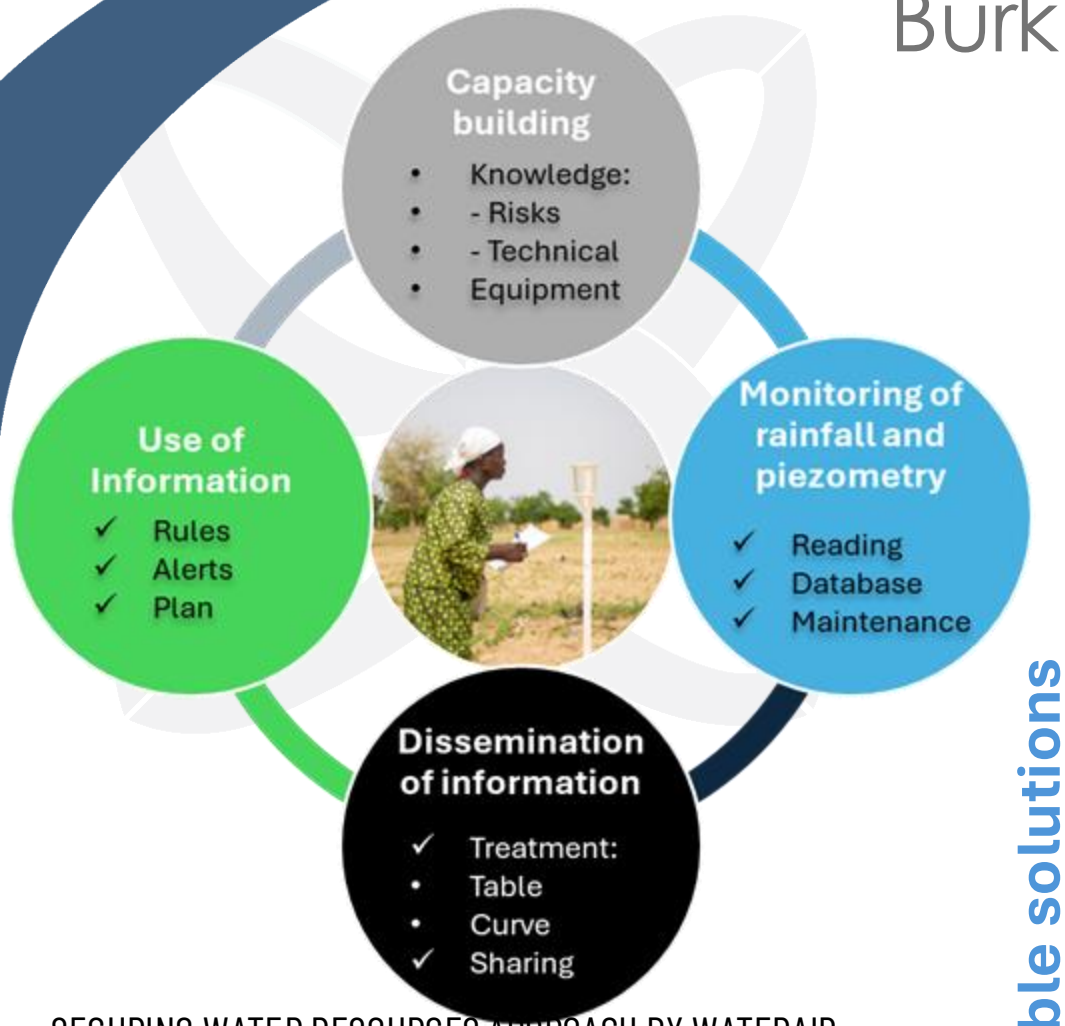
PERCEPTION

Clear perceptions of the CC phenomenon and **Clear** perception of impacts on livelihoods. But **Limited** perception of the causes of climate change

"People generally say that global warming is caused by scientists doing things in the sky. Because we've learned that they go up into the sky and do things. Otherwise, we've never seen such heat before. When we talk about heat, there is heat in April, but not scorching heat like this"
S. G, man Bogré

Research by: WaterAid Burkina Faso

Burkina Faso: Findings



SECURING WATER RESOURCES APPROACH BY WATERAID

BARRIERS TO THE USE OF CLIMATE INFORMATION:

- Low level of education (women)
- Dissemination schedule
- Lack of details/location
- Traditional beliefs
- Scepticism about forecasts

GEI

That women are less educated is a disadvantage when it comes to understanding climate information

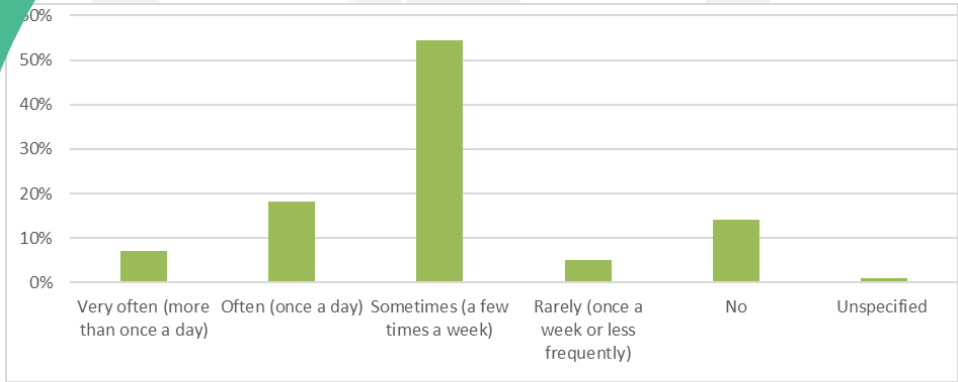
Possible solutions

- **Access to climate information**:
  - Dissemination format and channel
  - Dissemination channel
  - Local/relay competence
  - Accessible language
  - Release schedule/ time (including Gender Integrated)
  - leadership
  - Alert
- **Technical production**
  - Module
  - Training/communication support

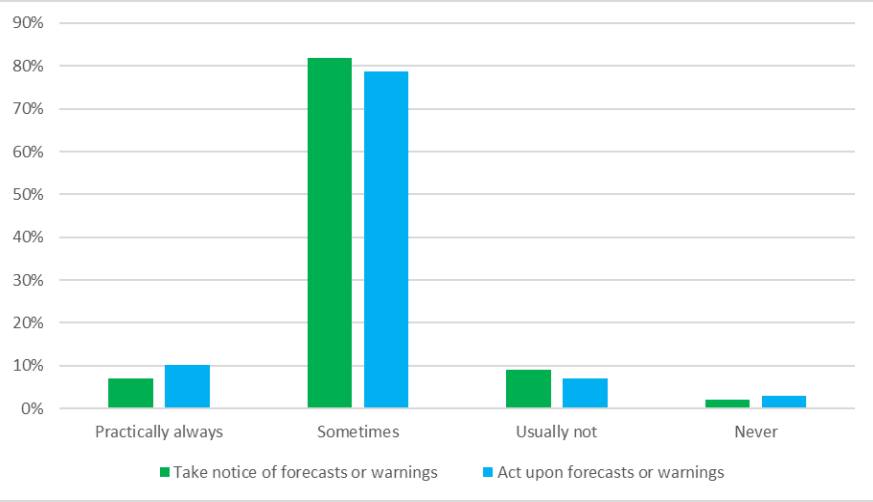
Research by: WaterAid Burkina Faso

Zambia: findings from Kanyama (Lusaka)

Access to forecasts/early warnings



Responses to forecasts/early warnings



- Data collected from 99 surveys (66 women, 33 men; 33 with a disability, 66 with no disability; ages from 18 to over 80) in Kanyama, Lusaka
- Men access more frequently than women; but few differences on account of disability (left)

- More women than men report not acting on forecasts/early warnings; persons with disabilities face particular challenges in access to response actions
- **Key barriers to uptake**: insufficient lead time, credibility of information or messenger, utility and useability of information

Research by: Kulima and the WISER EWSA team

Discussion: 7 Key Barriers

1. Reliability and Trust:
   - Perceptions that scientific forecasts are unreliable or less accurate than traditional methods.
   - Distrust in scientific knowledge due to cultural and religious beliefs.
2. Limited Accessibility:
   - High levels of illiteracy and lack of access to communication tools (e.g., mobile phones, radios, TVs) hinder the dissemination of climate information.
   - Dissemination through TV and radio news broadcasts excludes many community members who do not follow these channels.
3. Complexity and Lack of Understanding:
   - Scientific information is difficult to understand in highly illiterate communities.
   - Lack of emphasis by local leaders and inadequate extension services further limit understanding and usage.

Discussion: 7 Key Barriers

4. Non-Localised and Generalised Information:
    - Forecasts are generic and not specific to community needs or local geographic areas (e.g., no village-level information).
    - Climate services fail to address the unique demands of different groups like farmers, pastoralists, and fishers.
5. Lack of Preparedness and Alternative Actions:
    - Farmers struggle to use CI effectively due to a lack of actionable alternatives or choices to adapt their practices.
    - Decision-makers do not prioritise unforeseen climatic events, reducing preparedness.

Discussion: 7 Key Barriers

6. Cultural Resistance:
    - Strong reliance on traditional knowledge and a preference for elder-based forecasts over scientific information.
    - A "delicate balance" between tradition and modernity needs to be maintained to improve uptake.
7. Inadequate Communication and Engagement:
    - Limited opportunities for community members to engage with CI providers, ask questions, and clarify information.
    - Community meetings and extension workers are noted as beneficial but underutilised.

Conclusion and next steps

- Across the studies, there are ***more* commonalities than differences** of barriers; many of these **reinforce** barriers found within climate services literature
- Note: the availability of climate information often hypothesised as factor for CI use and uptake, and having potential to inform behaviour change
- However, findings show significant barriers to even accessing information, far less for use and uptake

- At BASIN, we will continue to review concerns with a behavioural lens

Conclusion: Potential opportunities?

- Some broad potential opportunities to consider include:
  - The need for tailored, localised information
  - Improved communication strategies
  - Better integration of traditional and scientific knowledge systems
  - Capacity-building (e.g., of community champions, local leaders, extension workers, community members)
  - Building Trust

Thank you -- Please feel free to reach out!

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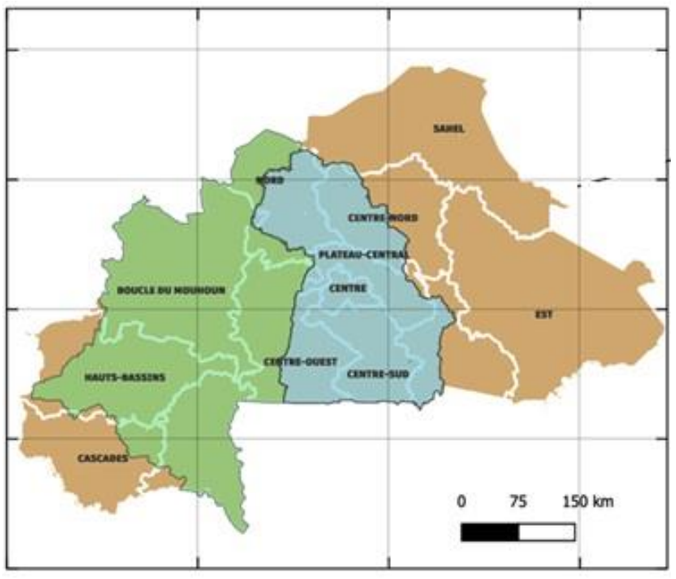
RQ4

The BASIN Project

BEHAVIOURAL ADAPTATION FOR WATER SECURITY AND INCLUSION

Barriers and Opportunities for Behaviour Change in the Uptake of Climate Information in Burkina Faso



Communities in Burkina Faso face increasingly severe climate challenges, including erratic rainfall, rising temperatures, and destructive winds, which directly threaten water resources, agriculture, and livelihoods. While climate information has the potential to strengthen local resilience and improve decision-making, its use is constrained by barriers such as low literacy, timing and accessibility of dissemination, and persistent reliance on traditional indicators. This study, conducted under the BASIN programme, explores how households, community leaders, and vulnerable groups perceive, access, and act upon climate information. The rationale is to generate behavioural insights into what enables or hinders uptake, and to identify opportunities for interventions that align with WaterAid's climate-resilient WASH agenda.

Data were collected in 2025 across 43 communities in Burkina Faso using the securing water resource approach. In total, (56 interviews with household members (33M,23F) and 43 interviews with community leaders (2F, 41M)). This design ensured that both men's and women's perspectives were captured, while also including a range of actors — households, leaders, and relays — who influence the production, dissemination, and use of climate information.

Key outcomes and findings

- Perceptions of climate hazards are mixed: rainfall is seen as increasingly erratic, winds as destructive, and rising temperatures as harmful to farming.
- Causes of climate change are often linked by communities to deforestation and human activity, alongside supernatural explanations.
- Impacts on livelihoods include reduced cereal and vegetable yields, loss of suitable seeds, declining livestock resources, lower agricultural income, and water resource depletion. Vulnerable groups (women, the elderly, people with disabilities) are especially affected, facing both economic and social disadvantages in adapting to change.
- Resilience strategies developed locally include planting short-cycle crops, building bunds and half-moons, tree planting/reforestation, and collective responses such as prayer and solidarity.
- Use of climate information:
  - A large majority find climate information useful.
  - Main uses are for deciding when to sow, managing livestock, and planning community meetings.
  - Barriers to use include low literacy (especially among women), timing of dissemination, lack of detail, and continued reliance on traditional indicators.
- Trust in forecasts increases when linked to daily agricultural decisions, but skepticism remains where forecasts don't match lived experience.

Operational Plan – Next Steps

- ✓ Develop an operational plan that translates workshop recommendations into specific behaviours to change, the audiences to target, and the behavioural levers to use.
- ✓ Design intervention tools and materials that make the desired behaviours easier, more motivating, and more visible (e.g. prompts, recognition systems, feedback loops)
- ✓ Select and support relays and model communities to act as early adopters and role models, demonstrating the target behaviours in practice.
- ✓ Monitor and document behavioural changes among relays, communities, and institutions, focusing on what people do differently and why.
- ✓ Evaluate results to understand which behavioural determinants were shifted and how this affected climate-resilient WASH outcomes.
- ✓ Disseminate learning through policy briefs and scientific papers to show how behavioural approaches can strengthen climate resilience in WASH.

GEDSI Considerations

Women, elderly people, and people with disabilities are disproportionately affected by climate change impacts, due to both economic vulnerability and social barriers.

Low literacy among women limits access to and use of climate information. Many women cannot read forecasts in written form (SMS or posters) and rely instead on intermediaries, such as relays, leaders, or family members.

Gendered communication pathways matter. Respondents noted that women are more comfortable receiving information from other women, while men are more receptive to male intermediaries, underlining the value of gender-sensitive dissemination strategies.

Timing of meetings and information sessions often excludes women. Sessions are frequently held during the rainy season when women's household workload is highest, reducing their ability to participate.

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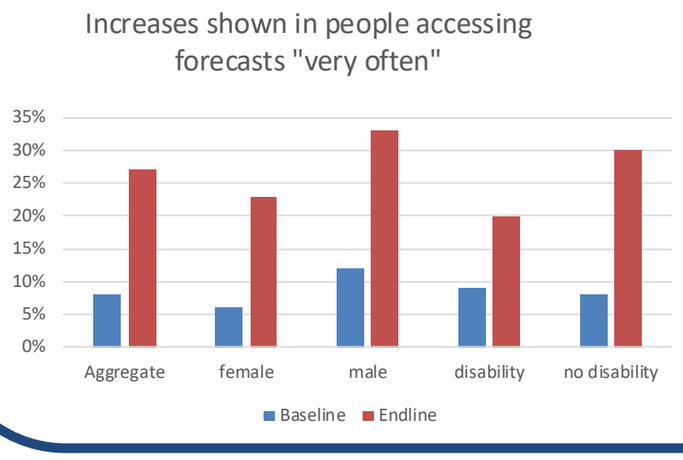
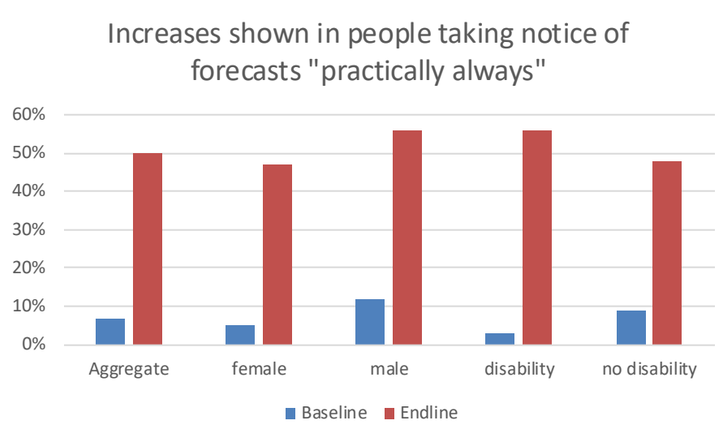
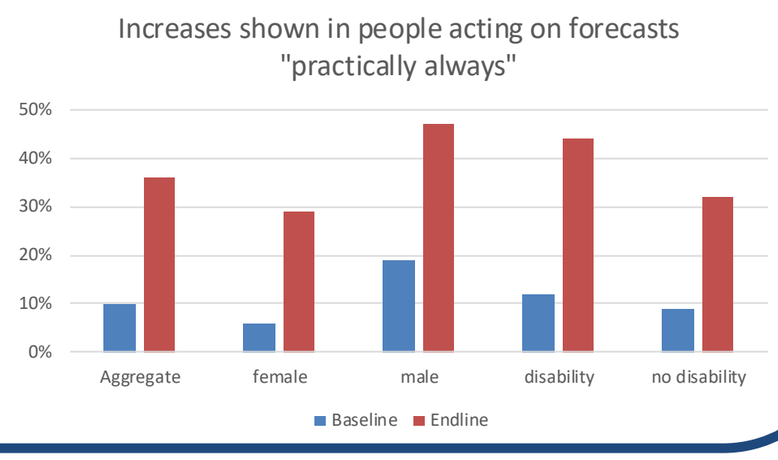
BEHAVIOURAL ADAPTATION FOR WATER SECURITY AND INCLUSION

Kulima: Responses to weather information in Zambia

Efforts in WISER EWSA were successful in increasing the numbers of people (across gender and disability status) accessing weather forecasts, taking notice of them and acting upon them. Women and people with disability still access, take notice of and act relatively less. People with disabilities were more likely to need help to understand weather forecasts. BASIN will further interrogate the nature of the responses.







1 "Community observers" (later integrated into the Satellite Disaster Management Committees/SDMCs) provided feedback to verify forecasts and improve accessibility of communication, and raised awareness of weather in their community.

2 Various data sources (surveys, interviews, focus groups) highlighted actions/behaviours in response to weather information at different timeframes in response to different hazards (right). These relate to changing mobility patterns to reduce risk – expected for short range weather information in urban areas. However there are also examples of livelihood and property-related actions to reduce the risk of economic losses.

Actions/behaviours taken in response to weather information at different timeframes in response to different hazards

	Hazards	*Nowcasts/alerts (0-6 hours)*	*Daily forecasts (12-72 hours)*	*Seasonal forecasts*
Save lives		Stay home, avoid unsafe buildings, avoid trees	Close schools, evacuate risk areas	Major home improvements
Health			Rent home with toilet	
		Collect water in jerrycans		
Comfort		Carry water	Install fan	
		Dress appropriately (e.g. gumboots, umbrella, raincoat)		
Lifestyle/ activities		Timing of laundry	Plan events, e.g. weddings	
Livelihoods		Protect productive assets/ perishable goods	Change timing/location of trading	
				Change timing/ location/seed of planting
		Secure livestock		
			Bring water to farmland	
		Dry crops inside		
Property		Move belongings to safe location		
		Close windows	Strengthen house (e.g. sandbags on roof)	Major home fortification
		Switch off electronics		
Community		Share weather information, check on people with disabilities		

3 The majority of reported actions were short term (in response to short term weather). We suspect this was a methodological limitation as participants were asked to recall actions at snapshots in time. In BASIN we intend to experiment with novel methodologies to try and add nuances to the range of behaviours – including linking to different timeframes of weather (and climate) information.

Data collection activities

- Googleform daily reporting of behaviours in response to OR anticipating of weather among 21 SDMC members
- Behavioural journey approach to sample of behaviours as decision arises

For inclusion we will capitalise on the connections of the SDMC members to capture actions and behaviours in response to weather information within their communities, particularly from persons with disabilities.

Ward	Men	Women	PWD	Original COs
Chinika ward 11	3	1		1
Kanyama ward 13	5	8	1	8
Makeni Villa ward 14	1	3	1	2

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BASIN
BEHAVIOURAL ADAPTATION FOR WATER SECURITY AND INCLUSION

Shahidi wa Maji (SwM)

Key Outcomes and Findings

RQ1: Community champions (Mashahidi) are largely inactive due to;

i. Limited training, a lack of support and resources
ii. Motivated by financial benefits over sustained benefits from advocacy for water security issues

RQ3: The climate adaptation and disaster risk reduction planning are not well coordinated due to;

i. Inexistence of the climate adaptation DRR planning framework
ii. District disaster risk reduction strategies are not updated/non-existent

RQ4: Inadequate reach of early warning information (EWI) to end users due to;

i. Local Governments prioritize climate response over preparedness for climate hazards
ii. Poor communities' information-seeking and use behaviours
iii. Inadequate local support systems, coupled with a lack of awareness and poor technology leveraging

Current impact plans/interventions

i. **Supporting strengthening local adaptation capacities and practices in case study communities;**
   a. Co-created a 5-year community-based climate adaptation plans (CAPs) in seven case study villages, addressing harmful behaviours and restoring nature and rivers.
   b. Co-designed with communities, Local Government authorities and TMA, localized Early warning products (EWP) to reduce the impacts of floods and droughts; to benefit 10,000 men, women, youth and people with disabilities via the farm SMS system.
   c. Co-designing of the Behavioural change campaign is underway, targeting institutional and individual behaviours that increase vulnerability to flood and drought risks.

ii. **Use of behavioural science insights/findings to influence;**
   ii. Review and planning of WSDP
   iii. Review and planning of the NCCRS
   iv. Updating of the District DRR plans/SP

Photo1: An 18-year-old girl presenting the draft CAP during the village Council Planning session at the Gulwe case study in Mpwapwa.

Photo 2: The Mvomero District Environmental Officer is facilitating CAP validation by the village assembly at the Lukenge case study

Data collection activities

i. Baseline survey
ii. CVCA using participatory tools: survey, interviews, FGDs, workshops, meetings, etc

Photo 4: FDG session in progress during data collection

GEI considerations

Adapted Inclusive Process and practices in all interventions: women, youth, elders, and people with disabilities.

Photo 3: A woman with disability at the group discussion during the village Council CAP session in Gulwe

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BEHAVIOURAL ADAPTATION FOR WATER SECURITY AND INCLUSION

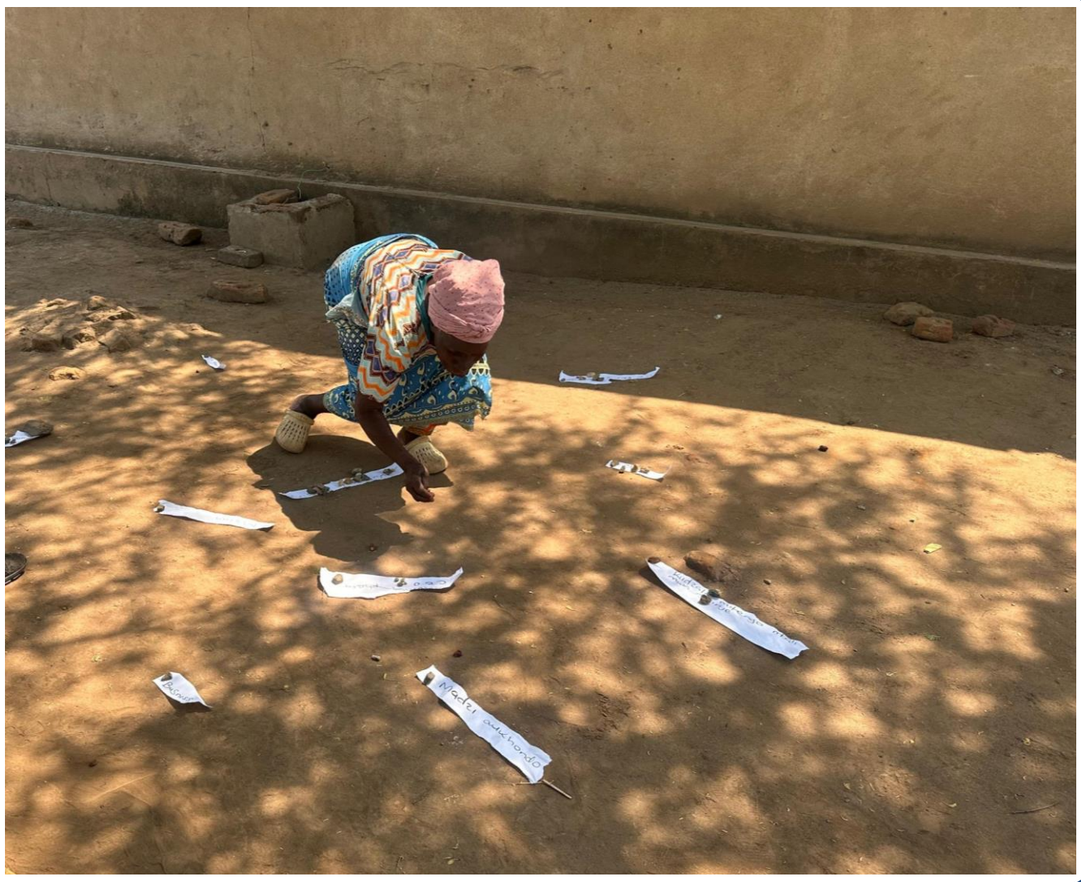
Water Witness Malawi: Ntondeza, Roben and Songwe case studies

Key findings

- High exposure and vulnerability to climate hazards with limited positive adaptation behaviours e.g. smart agriculture and stronger houses
- Gaps in institutional and resources e.g. inadequate funding and limited capacity to sustain adaptation practices
- Negative adaptation behaviours to climate risks e.g. cutting down of trees for charcoal and cultivating along river banks

Outcomes

- Increased adoption/uptake of socially inclusive climate adaptation solutions
- Communities lead climate adaptation and advocate for water security



Current impact plans/interventions

- Conducted CVCA, which identified climatic hazards, impacts and vulnerabilities of the communities and assisted in the development of community adaptation plans
- Trained Water Champions in the Uhakika wa Maji Model to advocate for water security and resilience interventions.
- Analyse the 2024/2025 WASH national budget to understand what is prioritised and how much is allocated to climate-related interventions and advocate for inclusive budget allocations
- Engaged with district and national-level stakeholders to improve climate adaptation for the most vulnerable

Data collection activities

- Baseline surveys
- Water Security scans
- CVCA
- National level interviews

GEI considerations

- Ensure women-led and youth-led community structures are invited to forums, actively participate, and their views are heard.
- Highlight differences in adaptation barriers faced by different vulnerable groups

WaterAid · Water Witness International · Shahidi wa Maji · UNU INWEH · Kulima · University of Malawi · The Nelson Mandela African Institution of Science and Technology, Arusha · LSE · Grantham Research Institute on Climate Change and the Environment

The BASIN Project

BEHAVIOURAL ADAPTATION FOR WATER SECURITY AND INCLUSION

WaterAid Tanzania: Uptake and Use of Climate Information at Community Level for Both Sangara and Bassotu Villages, Manyara Region, Tanzania.

Case Study Research Question: How can uptake and use of climate information be enhanced at the community level? (BASIN RQ 4)?

Objective: Enhance community uptake and use of climate information for water security.

Introduction: Climate variability poses significant challenges in Tanzania, particularly at the community level, where access to and use of climate information (CI) remain limited. Understanding how communities perceive, access and apply CI is essential for strengthening practices and ensuring sustainable water security.

Methodology:

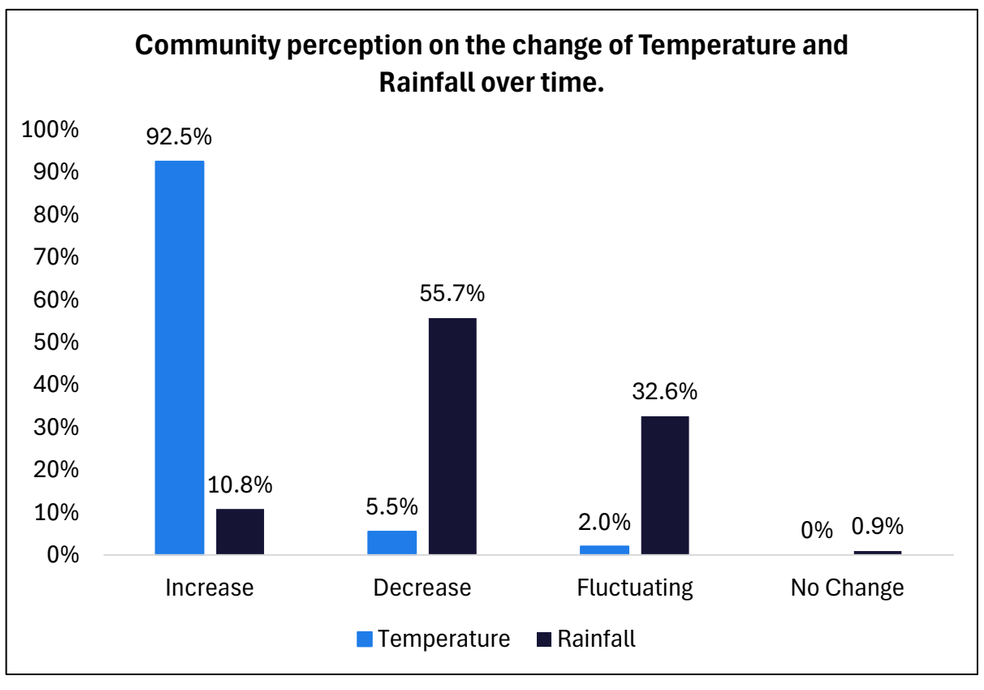
Method	Sangara	Bassotu	Total
FGDs	6	3	**9**
KIIs	22	15	**37**
HHs	353	382	**735**

Data Analysis:

- Excel,
- ATLAS TI. 9, and
- Python

Community Perception in the Change of Temperature and Rainfall over time at Bassotu village.

- Community members indicated their indigenous knowledge of climate variability in the village in both temperature and rainfall patterns.
  - 92.51% of respondents reported that the temperature has increased over the years.
  - 55.7% of respondents indicated that rainfall has decreased over the years.

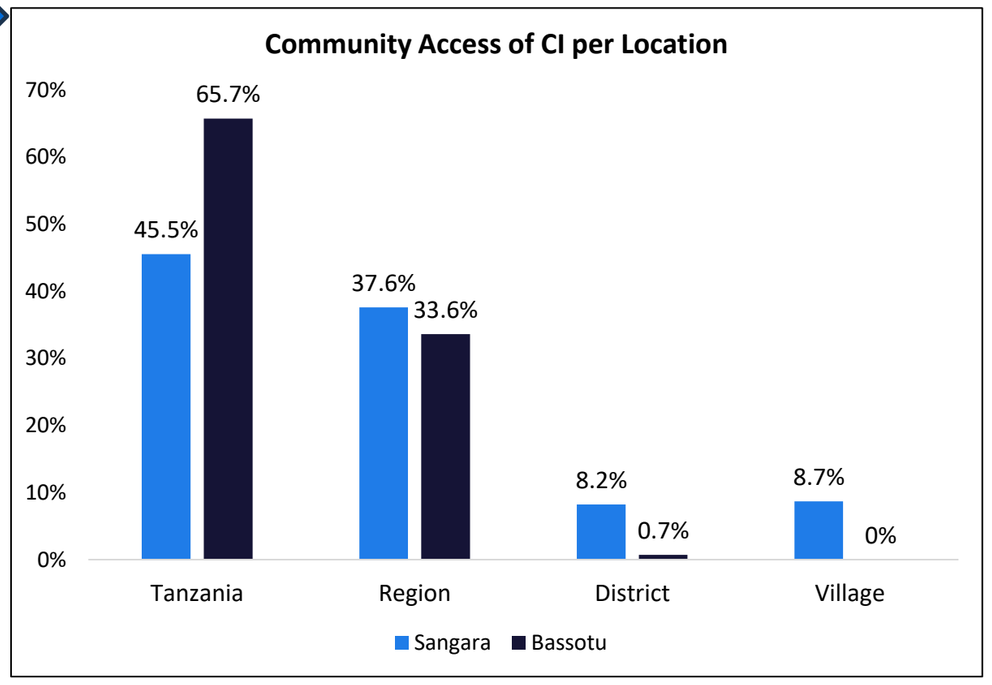


BASIN GESI Consideration: *A majority of women (95.1%) expressed a strong interest in receiving climate information, despite existing challenges.* The co-design will be inclusive for both males, females, and youths.

Key Outcomes Findings

- **44.7% and 28.2% of community respondents are unaware of the existing CI at Bassotu and Sangara villages, respectively.**
- **Available CI: daily, weekly, and seasonal forecasts are accessed through Radio, TV, and Mobile phone.**
- **Reliance on indigenous knowledge to decide on their livelihoods.**
- **Currently, 48 community members have started receiving CI from TMA.**

Access to Climate information per location. Access to location-specific climate information is crucial for effective local planning, adaptation, and water security. In Sangara and Bassotu villages, most respondents (45.5% and 65.7%, respectively) reported that the climate information they received was at the national level, and not downscaled specifically to their villages



Key Barriers

- Limited access to reliable sources
- Limited accessibility of CI data
- Complexity and lack of understanding
- Lack of localized/downscaled CI data
- Trust issue of CI
- CI is not timely disseminated.

Possible Interventions

- Co-design with TMA on the installation of weather stations to support the uptake of CI to more than 5,000 people.
- Train 10 Champions on Observation, Collection, and Transmission of weather parameters (Rainfall)
- Dissemination of findings through publication, policy briefs, and conferences.

The BASIN Project

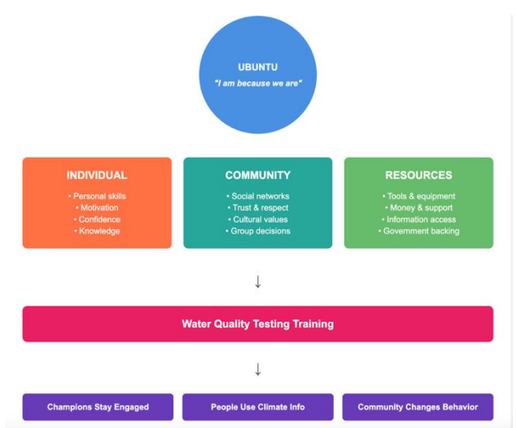
BEHAVIOURAL ADAPTATION FOR WATER SECURITY AND INCLUSION

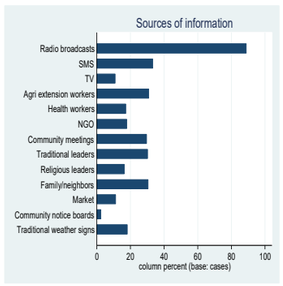
University of Malawi

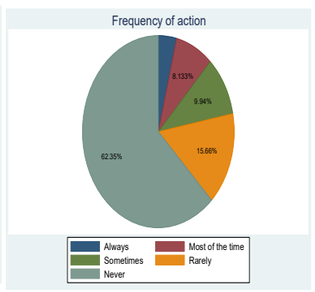
Mulanje and Chikwawa

Key Questions

1. How do different communication channels and information formats enhance the translation of climate information into adaptive behaviours?
2. How do community power structures and influence networks affect decision-making around water and climate adaptation?
3. Can participatory water quality monitoring simultaneously strengthen the motivation of champions and community uptake of climate information?







Finding 1- *Climate Information Access vs. Action Gap*

1. 89% access climate information (primarily radio), but only 38% ever take action
2. Trust built on past accuracy (81% of responses) and educational credentials (33%)
3. Primary barriers: Lack of tools (52%), insufficient finances (44%), distrust (32%)
4. Decision-Making is Relational and Relevance of information is based on utility

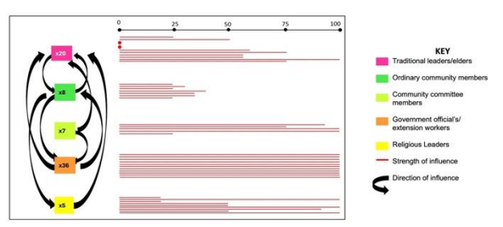
Finding 2- *Community Power Dynamics Vary Significantly*

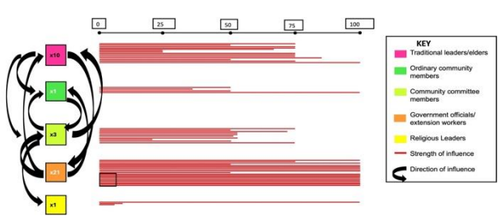
Mulanje: Distributed influence model

1. Government officials: 47% influence
2. Traditional leaders: 26% influence
3. Community members: 20% influence (higher participation)

Chikwawa: Centralised influence model

1. Government officials: 58% influence
2. Traditional leaders: 28% influence
3. Community members: 14% influence (limited participation)





Finding 3- *Water Quality Training Transforms Champions and Community*

1. Paradigm shift: From visual water assessment to scientific testing
2. Enhanced confidence: Champions report feeling equipped with "proper skills"
3. Expanded mandate: Successfully integrated water quality with climate work

Current impact plans/interventions:

Strengthened Water Quality Testing Approach

Enhanced Testing Capacity
Provision of simplified testing kits
Digital data recording systems

Scientific Empowerment Framework:
Community-led quality assurance systems
Integration of water quality data with seasonal climate information for predictive health planning

Context-Specific Programming Approach

Mulanje Strategy: Leverage distributed influence

Chikwawa Strategy: Build from a centralised structure

Data collection activities:

- 8 District level KIIs; 18 Champs IDIs;7 FGDs with community members and champions; Influence mapping; Survey

GEI considerations

1. The project team is composed of males and female,
2. Three Females and four males were involved in data collection as enumerators
3. Study participants and community trainings were inclusive too.
4. PG Students under the project are male (2) and female (1)