



A Systems-Based Approach to Climate-Resilient WASH in the District of Chikwawa in Malawi

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Executive Summary

Chikwawa District in southern Malawi is on the frontlines of the climate crisis.

Frequent flooding, droughts, and cyclones are damaging water infrastructure, contaminating sources, collapsing latrines, and threatening public health. Declining groundwater levels and degraded catchments further strain water availability, leaving households – particularly women, children, and farmers – vulnerable to climate shocks.

Since 2007, Water For People has partnered with the Chikwawa District local government to implement the Everyone Forever model – ensuring every household, school, and health clinic has sustainable WASH services. Building on this foundation, Chikwawa has become a focal point for integrating climate resilience into district-wide WASH systems. This approach is grounded in three adaptation aims:

- **Healthy freshwater ecosystems:** restoring water sources through catchment management, reforestation, gully rehabilitation, and borehole gardens that link water access with food production.
- **Dynamic and inclusive service management:** training village committees, strengthening monitoring and accountability, and preparing for early warning systems.
- **Strong infrastructure:** expanding solar-powered piped water systems, promoting pit liners to reduce collapsing, and piloting elevated water points to withstand flooding.

Together, these climate resilience efforts are improving service reliability, protecting ecosystems, and reducing disaster risk.

Lessons from Chikwawa highlight the importance of participatory planning, gender-sensitive approaches, and aligning local action with national policy frameworks such as Malawi's Climate Resilient WASH Financing Strategy. Persistent challenges remain, including weak integration of climate data into district planning, inadequate financing for infrastructure, and limited capacity for early warning and response.

Looking ahead, Chikwawa will expand nature-based solutions, integrate climate risk into District Master Plans, scale solar-powered water schemes, and continue building community and government capacity to manage climate risks. These actions aim to secure safe, reliable WASH services for all – even in the face of worsening climate impacts.



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A view of Lake Malawi



Background and Rationale

Why Climate Resilience is Central to WASH

In response to the growing threat of climate change to the long-term sustainability of water, sanitation, and hygiene (WASH) systems, approaches must be adapted to integrate climate resilience. Sustainability lies at the core of this mission. Yet, without climate adaptation, infrastructure remains highly vulnerable to extreme weather events such as floods, droughts, landslides, and cyclones, which can undo years of progress in a short time. To ensure continued access to safe water despite environmental changes, climate adaptation strategies must be integrated across all areas of WASH programming.

Adapting to climate change is crucial in Malawi due to the country's high vulnerability to climate-related disasters, particularly in districts like Chikwawa, which experiences annual flooding, drought, and dry spells.¹ Erratic rainfall patterns in the southern region disrupt smallholder farming, leading to crop failures and widespread food insecurity. In the aftermath of disasters, communities often prioritize food and shelter over WASH, despite the critical role of clean water and sanitation in preventing disease outbreaks. With over 80% of Malawi's population working in agriculture, unreliable rainfall threatens livelihoods and economic stability, forcing households to redirect resources from WASH investments to immediate survival needs.² Groundwater serves as a vital source of drinking water, but declining rainfall has reduced recharge rates, jeopardizing long-term availability and quality.³

Our focus has shifted from micro-level water quality improvements to catchment-scale solutions, such as reforestation and nature-based interventions that enhance groundwater recharge. This landscape-based approach aligns with best practices in climate resilience and sustainable water management.⁴

The focus has shifted from micro-level water quality improvements to catchment-scale solutions, such as reforestation and nature-based interventions that enhance groundwater recharge.

Likewise, water and sanitation systems must be redesigned to withstand climate impacts and safeguard both human health and the environment. By embedding climate resilience into all aspects of WASH, services remain robust, adaptable, and sustainable in the face of climate change.

¹ Government of Malawi, Ministry of Natural Resources, Energy and Mining Environmental Affairs Department *National Climate Change Management Policy*, 2016.

² World Bank, *Malawi Country Overview*, 2025.

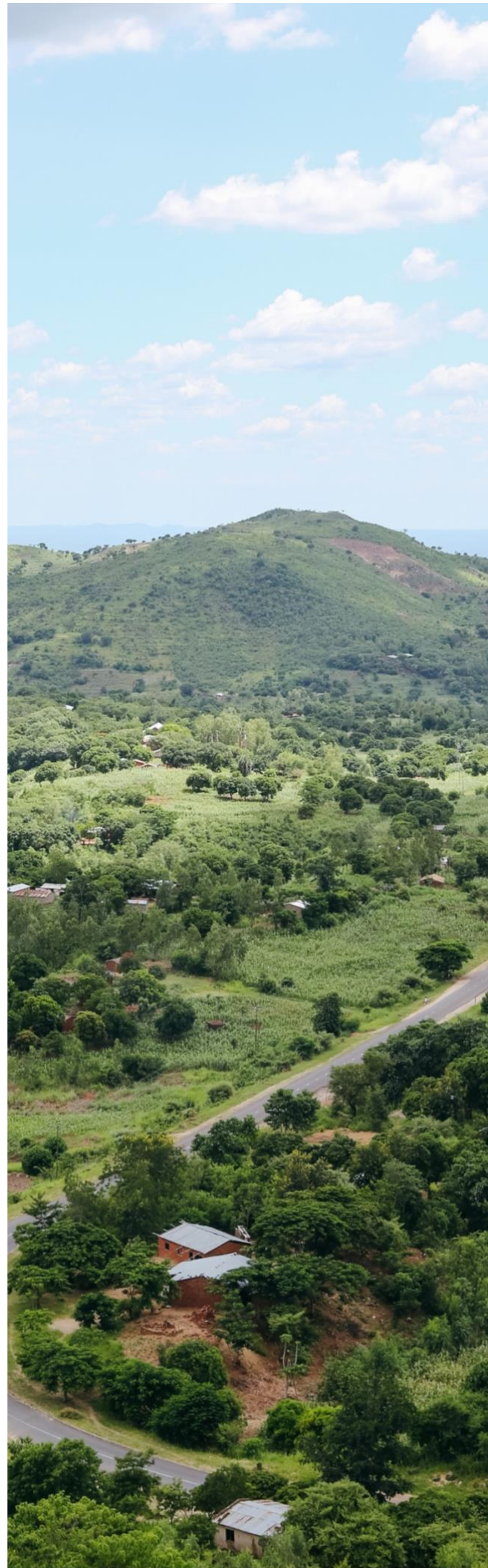
³ Global Water Partnership, *Malawi snapshot on water and climate*, 2022.

⁴ IRC and Water For People, *Climate Change, WRM, and WASH: Working Paper*, 2021.

The intended audience for this case includes global WASH practitioners, donors, local communities, policymakers, and water-related organizations. Globally, WASH experts and donors can use this knowledge to enhance interventions and secure funding for sustainable solutions. In Malawi, affected communities need practical strategies to protect water and sanitation services and contribute towards sustainable access, while national policymakers must integrate climate resilience into WASH policies. Organizations working on water conservation and infrastructure can align efforts for greater impact.

We want to encourage WASH practitioners, policymakers, and communities to go beyond traditional approaches to integrate climate resilience into district-wide WASH systems and to improve the health of freshwater ecosystems that sustain WASH services.

The case invites collaboration among stakeholders facing similar resilience issues by highlighting real-world challenges and successes so that strategies can be replicated and scaled.



Global Framing for Adapting to Climate Change Through an Area-Wide, Systems-Based Approach

We found three overarching themes when assessing the climate challenges faced in all countries where Water For People works. Water and sanitation services increasingly face too much, too little, and more polluted water as described in Figure 1.



Figure 1: Physical climate change impacts on WASH services.⁵

While these challenges are physical, the solutions are rarely physical. We have found that identifying solutions requires the same systems perspective we have been using for the past 15 years, which considers the building blocks shown in Figure 2.

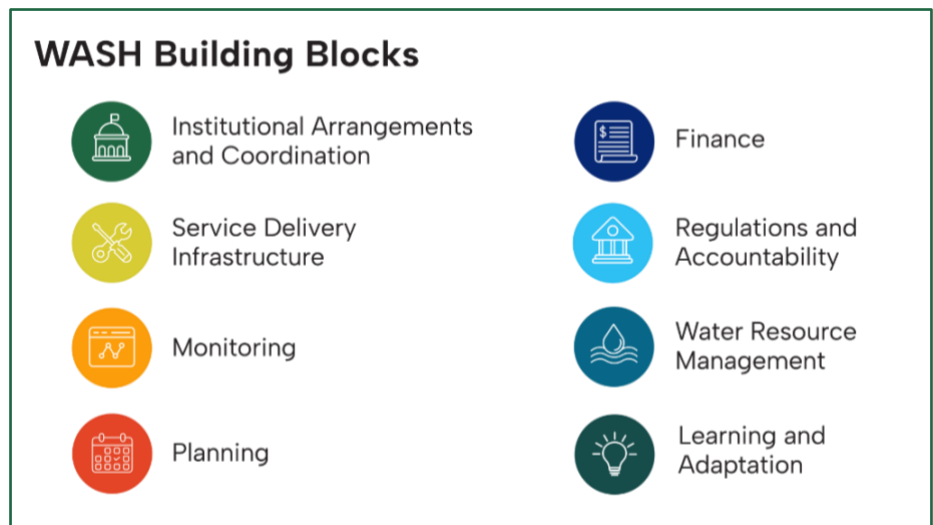


Figure 2: WASH Systems Building Blocks. Adapted from Agenda for Change.

⁵ IRC and Water For People, [Climate Change, WRM, and WASH: Working Paper](#), 2021.

Climate challenges and solutions align with building blocks in different ways. For example:

- **Institutional coordination** might need new connection points between various water-related sectors, such as the environment and agriculture.
- **Monitoring** systems might require greater frequency to understand shifting seasonal patterns or service disruptions.
- **Regulations** might need to shift design standards so infrastructure can withstand new and changing risks.

Understanding risks comes from considering the unique hazards, vulnerabilities, and exposures of a WASH system in a specific geography – all of which have proven helpful for identifying the most impactful strategies for adapting to climate resilience.

Three components of risk:



Hazard:	Vulnerability:	Exposure:
A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury, or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, and environmental damage.	The characteristics and circumstances of a community, system, or asset that make it susceptible to the damaging effects of a hazard.	People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.

Strategies we have identified fall into three categories, or adaptation aims, as defined in the following table.

Table 1: Three aims for adapting WASH services to climate change



Healthy freshwater ecosystems that protect and restore freshwater ecosystems, which can strengthen climate defenses and restore a natural balance that benefits WASH services.



Dynamic and inclusive service management that actively manages risks on a real-time basis to maintain continuity of services with a focus on disproportionately impacted populations. Opportunities to manage more dynamically can be identified across all of the building blocks.



Strong infrastructure that withstands stress and shock based on climate risk analysis to secure inclusive accessibility, while also recognizing that infrastructure alone will not deliver resilience services.

As described in the adaptation aims table, strategies expand beyond technology and infrastructure and center more on human and environmental dimensions of resilience.

Water For People’s global approach to climate resilience has evolved over several years as different communities, teams, and partners have faced challenges, and it is a work in progress. Most recently, this approach has been validated by its alignment with the sector-wide definition of climate-resilient WASH:

“Climate-Resilient WASH services anticipate, respond to, cope with, recover from, adapt to or transform based on climate-related events, trends and disturbances, all while striving to achieve and maintain universal and equitable access to safely managed services, even in the face of an unstable and uncertain climate, where possible and appropriate, minimising emissions, and paying special attention to the most exposed vulnerable groups.”⁶

⁶ Sanitation and Water for All, [Definition of climate-resilient water sanitation and hygiene services](#), 2024.

National Context: Malawi

According to Malawi's 2023 Revised National Water Policy, approximately 85% of the population has access to improved water sources, including piped water, boreholes, protected wells, and rainwater harvesting systems. The national standard stipulates that households should not travel more than 500 meters to access safe water, though this distance may vary between urban and rural areas.

60% of Malawi's population has access to improved sanitation facilities, such as flush toilets, pit latrines with slabs, and ventilated improved pit latrines. However, the level of access to basic sanitation and hygiene in Malawi requires improvement, as unsafe hygienic practices contribute to high water and sanitation-related disease outbreaks. These statistics highlight the ongoing efforts and challenges in achieving universal access to safe water and adequate sanitation in Malawi.



Everyone means that every community, family, school, and clinic in the districts where we work has access to safe and reliable WASH services.

To ensure these services are sustainable, **Forever** means that the institutions, built on strong government partnership and co-financing from the start, are in place for services to continue without Water For People's continued direct support.

Malawi, especially the district of Chikwawa, faces several climate hazards that threaten WASH service levels – leading to potential drops or stagnation in progress. Flooding, cyclones, and heavy rains frequently damage infrastructure, contaminate water sources, and increase the spread of waterborne diseases, particularly in flood-prone districts like Chikwawa. Declining groundwater levels pose a growing challenge, reducing the availability of reliable water sources, especially in rural and peri-urban areas that depend on boreholes and wells. Additionally, prolonged dry spells and droughts contribute to water scarcity, affecting both household and agricultural water needs while putting immense pressure on existing water supply systems. To search for water, communities may settle in hard-to-reach areas, creating a challenge to access WASH services. The Malawi Climate Resilient WASH Financing Strategy 2022-2032 emphasizes that these hazards underscore the urgent need

for climate adaptation measures to ensure sustainable access to safe water and sanitation services.⁷

To understand the systemic barriers in achieving universal and sustainable water and sanitation services, an assessment of the national WASH system was completed in August 2024 by sector players, led by the Ministry of Water and Sanitation, with support from Water For People. The assessment highlighted a significant weakness from the lack of human and institutional capacity, which hampers the effective management of water resources, particularly as climate variability increases. Another critical weakness is the lack of reliable data on water availability, usage, and climate impacts, which impedes informed decision-making and long-term planning. Climate change will likely exacerbate these weaknesses by intensifying water scarcity, increasing the frequency and severity of flooding, and driving more extreme weather events, which will strain already vulnerable water and sanitation systems. This underscores the need for enhanced capacity, better data collection and management, and the integration of climate resilience into planning and infrastructure development. The National Building Block assessment also prioritized increasing WASH budgeting and establishing systems for learning and adaptation.

Systemic Barriers:

- Lack of human and institutional capacity
- Inadequate and unreliable data on water and climate
- Weak integration of climate resilience in planning
- Insufficient funding
- Limited learning systems

Malawi has developed several national plans and priorities to address climate change, with potential positive impacts on WASH services:

- The **National Climate Change Management Policy** provides a framework for integrating climate resilience into various sectors, including WASH. The policy ensures that water and sanitation services are better equipped to handle the challenges posed by climate change, such as floods, droughts, and changing rainfall patterns.⁸
- In the **Nationally Determined Contributions (NDCs)**, WASH is referenced as a critical area for adaptation, with the recognition that climate resilience in the water and sanitation sector is essential to achieving sustainable development and improving public health. The NDCs stress the importance of integrating climate adaptation strategies into delivering WASH services to ensure they remain effective and accessible despite the changing climate.⁹
- The **National Adaptation Plan (NAP)** advocates integrating climate change adaptation into development processes, including strengthening WASH infrastructure.

⁷ Government of Malawi and UNICEF, [Malawi Climate Resilient WASH Financing Strategy \(2022-2032\)](#), 2022.

⁸ Government of Malawi, Ministry of Natural Resources, Energy and Mining, Environmental Affairs Department, [National Climate Change Management Policy](#), 2016.

⁹ Government of Malawi, [Malawi's Updated Nationally Determined Contribution](#), 2022.

The NAP emphasizes medium to long-term adaptation planning and budgeting, aiming to make WASH services more resilient to climate-induced challenges, ensuring that the infrastructure can better withstand extreme weather events such as floods and droughts.¹⁰

- The **Malawi Climate Resilient WASH Financing Strategy** (2022-2032) is another key document aligned with the country's NDCs. This strategy seeks to address the financing gap in the WASH sector by securing the financial sustainability of WASH services while considering the impact of future climate scenarios and Malawi's socio-economic context. The strategy aims to ensure climate resilience is built into the planning and delivery of water and sanitation services.¹¹

District Context: Chikwawa

Climate Change Impacts on WASH Services in Chikwawa District

Water For People has partnered with the Chikwawa District local government to implement the Everyone Forever model since 2007. This work has focused on developing piped water systems for households, communities, and public institutions; building sanitation infrastructure and providing hygiene education in schools and health facilities; and promoting sanitation and hygiene practices in households – all to ensure sustainable WASH services for the entire district.

Chikwawa is a rural district with a population of 653,240 in southern Malawi. The terrain is predominantly low-lying and prone to flooding, with a network of rivers, including the Shire, that experience seasonal variations. The district faces severe catchment degradation due to deforestation, unsustainable farming, and soil erosion, leading to increased siltation in water sources. Declining groundwater levels and prolonged dry spells further threaten water availability, exacerbating climate-related WASH challenges. In Chikwawa, the water and sanitation services are diverse, with both improved and unimproved options available, depending on the location and infrastructure. For water supply services, the most common sources in rural areas are boreholes and hand pumps, which provide water through manual pumps. These are widespread but may face



¹⁰ Government of Malawi, Ministry of Natural Resources, Energy and Mining, Environmental Affairs Department, [Malawi's National Adaptation Plan Framework](#), 2020.

¹¹ Government of Malawi and UNICEF, [Malawi Climate Resilient WASH Financing Strategy \(2022-2032\)](#), 2022.

challenges such as overuse and contamination during floods. Gravity-fed water supply systems are also utilized, particularly in areas where water can be sourced from upland catchments, using natural gravity flow to supply communities with water. Some communities and institutions rely on surface water abstraction, drawing water directly from the Shire River and other nearby water bodies. Although these sources can provide water, they are vulnerable to contamination, especially during heavy rainfall and floods. Piped water schemes, which are managed by the Southern Region Water Board and community-based water user associations, provide more reliable water services but are limited in coverage, serving mainly urban areas and some peri-urban regions.

Some households in more remote areas still rely on unimproved water sources, such as unprotected wells, rivers, and seasonal streams. These sources are often contaminated, leading to a higher risk of waterborne diseases, particularly during heavy rainfall or dry spells.

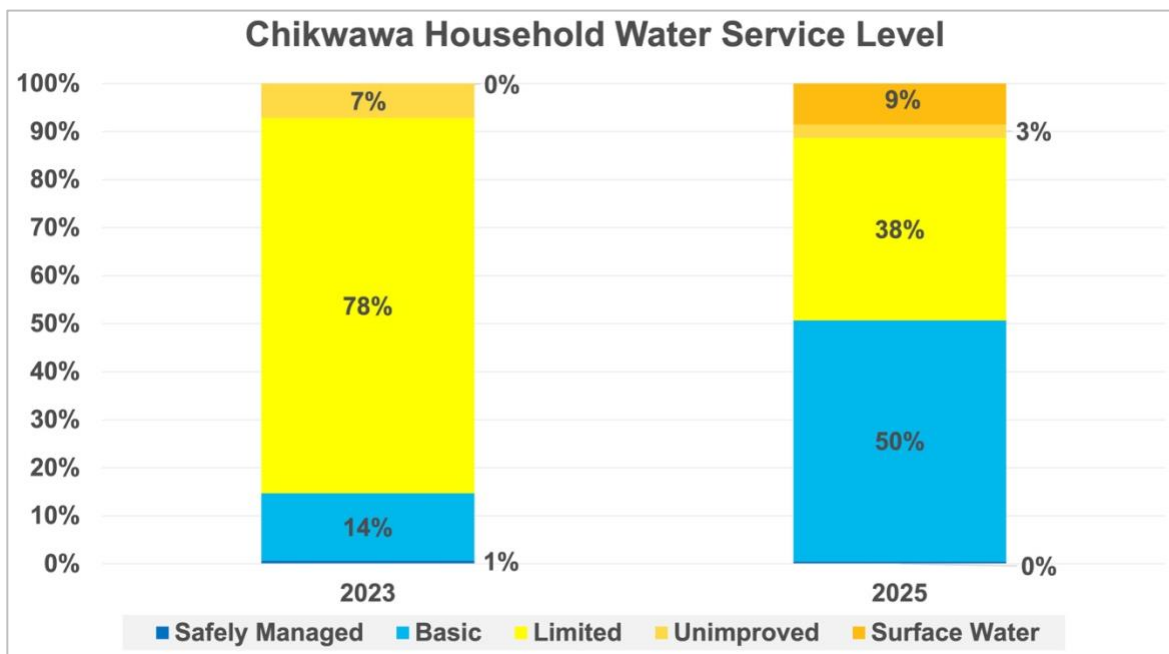


Figure 3: Chikwawa Household Water Service Level. Source: Water For People, Malawi Annual Monitoring Household Survey, 2025

The chart in Figure 3 shows that in Chikwawa, access to improved water sources within a very short collection time of 30 minutes has been very low in both 2023 and 2025, and 9% of the population relies directly on rivers and dams for drinking.

For sanitation services, most households use pit latrines – both improved and unimproved, depending on the community's resources and infrastructure. These latrines are widely available, but sanitation conditions vary. In urban centers and institutions, flush toilets are more common but are still limited in coverage, with most rural areas relying on simpler

sanitation systems. The lack of widespread access to improved sanitation increases the risk of water contamination and associated health issues.

Access to improved toilets that are not shared is very low, as seen in Figure 4. Partially due to collapsing latrines because of floods and storms, 5% of the population continues to engage in open defecation – using fields, forests, bushes, rivers, or any other open area instead of a toilet or other designated facility.

The chart also shows that the majority of the latrines used are traditional pit latrines (85%) in 2023 and (92%) in 2025.

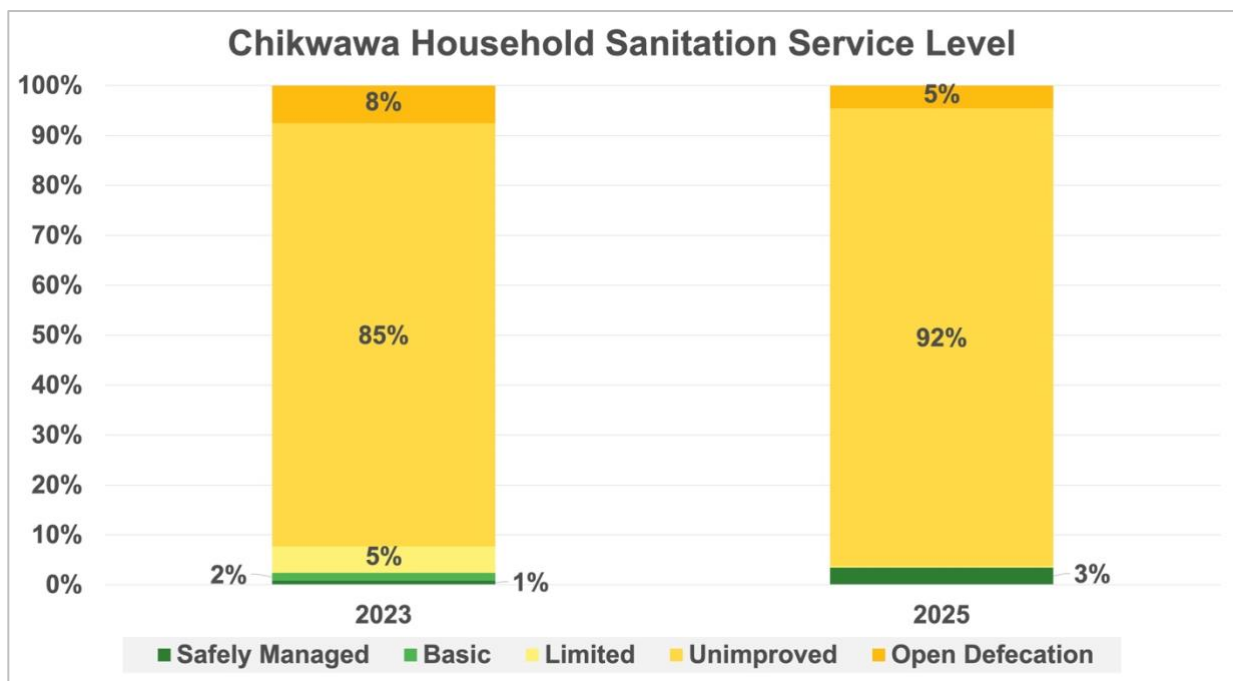


Figure 4: Chikwawa Household Sanitation Service Level. Source: Water For People, Malawi Annual Monitoring Household Survey, 2025

District Climate Risks

Climate Risks to WASH Services in Chikwawa

The climate hazards in Chikwawa are similar to those faced nationally and are included in the table below.



Hazards	Vulnerabilities	Exposure
<ul style="list-style-type: none"> • Flooding and heavy rains • Drought and dry spells • Temperature increases 	<ul style="list-style-type: none"> • Access gaps to clean water • Weak infrastructure and poor service quality • Women, children, people with disabilities, low-income communities • Inadequate funding for direct support costs on the WASH service authority • Inadequate tariff collection from community water service providers to cover capital maintenance • Weak feedback mechanisms for tracking responses to water user feedback • Weak enforcement of acts and policies to mitigate public, environmental, and vocational health risks 	<ul style="list-style-type: none"> • Gravity-fed water systems and source areas • Shallow wells • Latrines • Point sources and piped water systems • Groundwater and surface water sources

These risks in Chikwawa, including hazards, vulnerabilities, and exposure, were identified through a combination of historical climate data provided by the meteorological department, as well as community observations and experiences. The hazards, such as floods and droughts, were documented using climate data, which helps to understand the frequency and intensity of extreme weather events in the region. Vulnerabilities were identified through vulnerability assessments conducted by the government and other organizations and partners, which focus on understanding the weaknesses of communities and their capacity to adapt to climate change. These assessments help to highlight the most at-risk populations and areas, particularly in rural regions like Chikwawa.

The impacts of these risks can be identified through health data, which often shows an increase in waterborne diseases and other health issues during the rainy season. The Ministry of Health actively monitors these trends and raises awareness, especially during the high-risk periods of floods or outbreaks, to mitigate the impact on communities.

Local communities, particularly those directly impacted by climate risks, are actively involved in identifying these risks. This is done through focus group discussions and community meetings, where individuals can share their lived experiences and observations of how climate hazards have affected their lives. These community-level consultations help ensure that the identified risks are relevant and reflect the real challenges people face on the ground. Through such participatory approaches, the adaptation measures proposed are more tailored to the actual needs and realities of the communities affected.

Adaptation Strategies

Priority Adaptations that Respond to Climate Risks in Chikwawa, Malawi

The following table summarizes the priority adaptations that have been made and planned to improve the resilience of WASH services in Chikwawa, considering the identified risks.



**Adaptation
Aim: Healthy
Freshwater
Ecosystem**

Implemented Activities:

- **Catchment management and reforestation efforts** have been carried out to restore and protect the natural environment surrounding water sources.
- **Gully rehabilitation** initiatives have been implemented to reduce soil erosion, minimize siltation of water bodies, and enhance infiltration to replenish aquifers. Together, these activities contribute to building a healthy freshwater system that is both sustainable and climate-resilient
- **Borehole gardens** have been developed to take advantage of the runoff from the collection point to water community gardens, reducing pollution, increasing recharge, and generating more produce.

Future Activities:

- **Community-managed tree nurseries** which supply indigenous seedlings for reforestation activities and empower local communities to take ownership of catchment restoration.

- **Expand nature-based solutions**, such as riparian buffer zones along riverbanks, to further mitigate flood risks.
- **Enhancing groundwater recharge initiatives**, helping to address water scarcity in the region.



**Adaptation
Aim: More
dynamic and
inclusive
service
management**

Implemented Activities:

- **Training of Village Natural Resources Management Committees in WRM.** These trainings equip committee members with practical skills and knowledge in areas such as watershed protection, soil and water conservation, monitoring of water points, tree planting, and enforcement of by-laws governing the use of natural resources.
- **Routine water quality monitoring** to track the safety of water across various points in the supply chain.
- **System strengthening:** Initiatives to improve service reliability, promote sustainability, and enhance accountability across the rural WASH sector, including the establishment of a rural sanitation revolving fund to support households in accessing improved sanitation facilities and the professionalization of rural water supply service providers through capacity-building, formal registration, and ongoing supervision.

Future Activities:

- **Integrated Water Resources Management (IWRM) Plan for Chikwawa** to guide sustainable water use across the district. These efforts aim to build stronger, more sustainable systems capable of withstanding climate shocks.
- **Risk assessments will identify climate and environmental vulnerabilities**, ensuring that future interventions are evidence-based and targeted.
- **Capacity-building programs for local government and community members** will be intensified to ensure effective implementation and long-term sustainability of adaptation measures.
- **Improve early warning systems** to minimize impacts when extreme weather events and floods are expected.



**Adaptation
Aim: Stronger
infrastructure**

Implemented Activities:

- **Solar-powered water system** installations to ensure a reliable and energy-efficient means of pumping water, particularly in off-grid and drought-prone areas.
- **Pit liners are being promoted** to strengthen latrine structures, prevent collapse, and protect surrounding soil and groundwater from contamination, especially in areas with loose soils or high water tables.

Future Activity:

- **Elevated and multifunctional water points** can serve multiple community needs, reducing the impact of heavy rains and protecting both water infrastructure and nearby settlements from damage.

Efforts have been led by Water For People in close collaboration with district authorities, community-based structures, and local leaders to prioritize communities that experience disproportionate climate impacts – particularly smallholder farmers, women, and households in flood-prone areas. Through participatory planning sessions facilitated jointly by Water For People and district technical teams, these groups have actively identified climate adaptation solutions tailored to their specific vulnerabilities. For example, Village Natural Resource Management Committees received targeted training on watershed conservation, water resource protection, and the enforcement of bylaws, which has enhanced local leadership and accountability. Special attention was given to ensure gender-sensitive approaches were applied, such as creating safe spaces for women to contribute meaningfully to decision-making and prioritizing their participation in planning and implementation activities.

These inclusive efforts have not only built community ownership, but also ensured that adaptation interventions are equitable, relevant, and sustainable.

Infrastructure improvement with solar-powered systems

The Mangulenje Solar-Powered Piped Water Supply System (pictured right) was implemented to address the long-standing challenge of limited access to safe and reliable water in Mangulenje Village, under Group Village Head Lundu in Chikwawa District.



Previously, households relied on shallow wells and seasonal streams, which were not only unsafe but also unreliable, particularly during the dry season. The solar-powered system, with a storage capacity of 152,000 liters and a yield of 20 liters per second, represents a significant shift from manual and unprotected sources to a sustainable, climate-resilient solution. It now serves approximately 440 households, dramatically reducing the time spent collecting water and improving health outcomes through better water quality.



Nature-based solutions for gully rehabilitation to protect infrastructure

In Traditional Authority Chapananga in Chikwawa District, a major gully is being rehabilitated through a collaborative effort between Water For People and the Department of Land Resources under the Ministry of Agriculture. This initiative is part of an IWRM approach, which emphasizes cross-sectoral collaboration to manage water and land resources sustainably.

Gully rehabilitation plays a critical role in water resources management by reducing soil erosion, preventing siltation of rivers and water points, and enhancing groundwater recharge. Left unchecked, gullies can lead to the loss of arable land and increased sediment load in downstream water systems, compromising both water quality and availability. The initiative actively involves local communities, who are constructing check dams (pictured above) and planting vetiver grass. Their participation not only builds ownership but also ensures the sustainability of the intervention through local knowledge and stewardship.

Integrating Climate Into Planning

Integrating Climate Risks and Adaptation into District Master Plans

Integrating climate risk analysis and adaptation planning into District Development and WASH Master Plans is a critical step toward building long-term resilience at the local level. Currently, climate risk integration in District Master Plans in Chikwawa has not been fully achieved. However, there is growing recognition among district stakeholders of the need to embed climate considerations in planning processes, especially in light of increasing vulnerabilities to floods, droughts, and extreme weather events. The District Executive Committee and key technical departments have expressed strong interest in embedding climate risk data into upcoming revisions of the District Strategic Implementation Plan.

Preliminary steps have been taken to lay the groundwork for this integration. For example, climate resilience is increasingly being discussed in coordination meetings and the design of specific WASH interventions. Additionally, ongoing collaboration between Water For People and district authorities opens opportunities to align future planning processes with climate risk assessments. We have also provided an in-depth analysis of the best practices emerging from the rural management models for solar-powered water schemes, which are seen as a climate adaptation strategy. With this analysis, councils can make evidence-based decisions on financial allocation towards the systems of concern, including staffing, resources, tariff setting – including cross-subsidies and willingness to pay. A better understanding of the costs and benefits of handpumps versus reticulated systems with solar will also allow for professionalization of management models for better performance.

Lessons Learned

Lessons Learned for Integrating Resilience

In Chikwawa and across Malawi, understanding of climate risks and potential solutions is growing, but more work is needed to truly shift the status quo. Our experience highlights the following opportunities for change:

- Integration of climate risk analysis and adaptation planning into District Development and Investment Master Plans is a critical step toward building climate resilience.
- The existing national policy frameworks, such as the National Climate Change Management Policy and the National Adaptation Plan, can guide the transition in local planning, and experiences at the local level can influence policy.
- Local and national political will is essential for influencing change and scaling approaches.
- Building local capacity to conduct these assessments and translating climate data into actionable planning priorities will be key.

- Active community engagement enhances the adoption and long-term sustainability of resilience measures. In Chikwawa, ensuring insights from community engagements gathered during the development of IWRM Plans inform and shape future planning efforts.
- Successful climate-resilient planning relies heavily on multi-stakeholder collaboration, ensuring that diverse perspectives and resources are aligned.
- Nature-based solutions have proven effective in mitigating local climate risks such as flooding and erosion.

Conclusion

If we fail to respond effectively to climate threats, lives will be at risk, as water sustains life but can also be a destructive force in extreme weather events.

While progress has been made, sustained action is needed to build long-term resilience in Chikwawa. Greater investment in climate adaptation, deeper integration of climate considerations into national and district plans, and stronger community capacity are essential to withstand future shocks. Collaboration among government, civil society, and the private sector will be critical to drive meaningful change.

Chikwawa's strategies can also serve as a model for other drought and flood-prone districts in Malawi. Ongoing efforts to scale successful projects through partnerships with national institutions, development organizations, and the private sector demonstrate the potential for broader impact. Strengthening coordination between local and national governments will be key to adopting widespread best practices. By fostering innovation, strengthening partnerships, and prioritizing nature-based solutions, Chikwawa can help lead the way toward climate-resilient WASH in Malawi and beyond.

The time to act is now – climate resilience is not just an option, but a necessity for sustainable development.

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