

# No Households Left Behind

Accelerating Access to Piped Water Supply in Homes in Africa

*Case Study by the Africa Sustainability Work Group*

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## The Challenge of Expanding Household Water Connections

Across much of Africa, the expansion of safely managed water services remains constrained by limited household-level connections. While access to basic drinking water has improved over the past two decades, only 32% of Sub-Saharan Africans had safely managed water at home as of 2024, according to the WHO/UNICEF Joint Monitoring Programme (JMP). Most households still depend on communal water points—a setup that often leads to long queues, inequitable access, and a disproportionate burden on women and children who collect and carry water daily.

In rural and peri-urban areas, the affordability gap, inadequate infrastructure, and weak institutional capacity continue to be major barriers. For many families, the cost of connecting to a utility-managed supply is prohibitive; for utilities, the challenge lies in extending service to the “last mile” while maintaining financial viability. Bridging this divide requires innovative financing mechanisms, pro-poor subsidies, community demand generation, and stronger utility governance—a combination that Water For People and its partners are actively pursuing.

## Water For People's Approach

Through its Everyone Forever model and the Destination 2030 strategy, Water For People supports governments and utilities to scale safely managed water services to all households. Our country programs are testing models that blend public–private partnerships, targeted subsidies, and community-driven demand creation to make household connections accessible and sustainable.

This case study draws on experiences from Malawi, Rwanda, Uganda, and Tanzania, where the Africa Regional Sustainability Work Group convened a virtual learning exchange in February 2025. The session examined practical barriers and emerging solutions for household water connections and sharing lessons learned to inform national programs and regional policy dialogues.

Expanding household water connections has encountered a range of persistent challenges, particularly around affordability, last-mile connectivity, and institutional readiness. In Rwanda, the issue lay in the lack of integration of household connections into broader national water strategies, with unclear investment needs and limited planning for last-mile service delivery. In Malawi, while demand for household connections was high, only those near existing distribution lines were initially prioritized, and communities struggled to interpret metering and billing systems. Similarly, in Tanzania and Uganda, high upfront costs presented barriers to access, especially for vulnerable or remote households.

For example, in Uganda, the household connection process starts with six months of community engagement through radio, community meetings, and public announcements. Households are offered subsidized connection fees of about \$27 USD, which are deposited into a sub-county managed account. Construction plans are prepared based on the number of households interested. The teams hold additional community meetings to support the switch to piped water, discussing topics like tariffs, meter readings, bill payments, and sanitation. These activities are done in partnership with utility companies and the District Water Office. Once the list is verified, it is given to the contractor for connection. A final field check is performed to verify all households are connected. For vulnerable households, an assessment determines their ability to pay monthly bills. Those with some income are prioritized for connection, while those unable to pay are provided with rainwater harvesting jars as an alternative safe water source.

The table below summarizes the challenges, solutions, and outcomes from the different approaches to connecting households in Malawi, Rwanda, Tanzania, and Uganda. Common across all contexts was the need to engage communities early, align financing mechanisms with household capabilities, and ensure institutional coordination for long-term sustainability. Despite these shared challenges, the countries pursued varied strategies tailored to their local contexts.

	<i>Challenges</i>	<i>Solutions</i>	<i>Outcomes</i>
<b>Malawi:</b> <i>Overcoming Cost Barriers and Enhancing Metering</i>	<p>High demand for household connections, but only those near distribution lines were initially considered.</p> <p>Community members lacked capacity to interpret metering and billing.</p> <p>High cost per person compared to communal water points.</p>	<p>Implementation of a <b>Demand Testing Campaign</b>, engaging traditional leaders and requiring upfront financial commitments.</p> <p><b>Technical assessments</b> to ensure the system can accommodate new connections.</p> <p><b>Metering-based tariff structuring</b> to improve cost recovery.</p>	<p>Increased tariff collection and enhanced willingness to pay for services.</p> <p>Improved access to safely managed water supply.</p> <p>Strengthened professionalized water supply management at the local level.</p>
<b>Rwanda:</b> <i>Integrating Household Connections into National Water Strategies</i>	<p>Household connections were not fully integrated into water supply programs.</p> <p>Unclear investment needs for last-mile connectivity.</p>	<p>Pilot initiatives to explore the feasibility of household water business models.</p> <p>Engagement of <b>local authorities and private operators</b> to improve implementation.</p> <p>Mapping of all customers in rural areas by the <b>Water and Sanitation Corporation (WASAC)</b>.</p>	<p>1,000 new household connections targeted per rural district annually.</p> <p>Increased willingness among households to invest in water connections.</p> <p>Improved knowledge of financial requirements for last-mile service provision.</p>
<b>Tanzania:</b> <i>Leveraging Credit-Based Approaches for Water Connections</i>	<p>High upfront costs for household water connections remain unaffordable for many families.</p> <p>Delay in signing agreements between Water For People and Water.org.</p>	<p>A credit system with <b>Tanzania Association of Microfinance Institutions (TAMFI)</b> and <b>Vision Fund</b> to provide <b>microloans</b> for household connections.</p> <p>Cost-sharing model where <b>households pay installments</b> as part of their monthly water bill.</p>	<p>500 households identified as eligible for water connection loans.</p> <p>Improved affordability and accessibility of piped water.</p> <p>Increased engagement of financial institutions in the water sector.</p>

<p><b>Uganda: Promoting Pre-Construction Engagement and Enhancing Access to Safely Managed Water Supply Among Low-income Households</b></p>	<p>Ability-to-pay assessments were not initially conducted, leading to disconnections among households unable to sustain payments.</p> <p>High connection costs for households located far from the distribution network.</p>	<p><b>Community sensitization campaigns</b> six months before system construction to promote household water connections.</p> <p><b>Developed a pro-poor strategy</b> to help households connect and afford a basic lifeline supply of water by:</p> <ol style="list-style-type: none"> <li>1) Subsidizing initial connection costs to enable low-income households to afford connections</li> <li>2) Engaging utilities to lower tariffs, enabling households to afford a lifeline quantity of water</li> <li>3) Offering flexible payment options to households and institutions to ensure continuous access to water services, even during times when they are unable to pay</li> </ol>	<p>Over <b>3,000 new household connections</b> were established in Kamwenge.</p> <p>Increased service functionality and sustainable management by utilities.</p> <p>Higher sanitation and hygiene standards in served communities.</p>
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## Lessons Learned & Challenges Moving Forward

Several key lessons emerged across the countries studied, highlighting both common challenges and effective practices in expanding household water connections. High capital costs, difficulties in designing financing models that balance affordability with cost recovery, weak regulatory frameworks, and limited technical capacity for maintenance and operations were recurring obstacles.

However, successful initiatives often shared certain enabling factors: demand-driven approaches that engaged community leaders and secured household financial commitment; credit-based models that allowed for installment payments; and public-private partnerships that strengthened financial sustainability and service delivery. Additionally, thorough pre-construction planning and early community engagement were critical for fostering local buy-in and ensuring long-term success.

## Spotlight on Equity

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Efforts to integrate **Gender Equality, Disability, and Social Inclusion (GEDSI)** have been increasingly prioritized in household water connection initiatives. In Malawi, GEDSI considerations are embedded from the outset, with agenda items included in contract negotiation meetings to ensure contractors align with inclusive values. System designs also reflect a pro-equity approach, prioritizing communal water points to first serve vulnerable populations before progressing to household connections in the same area. Ongoing reflection on GEDSI remains central as lessons emerge from demand-side dynamics. In Uganda, targeted strategies include subsidizing connection fees for vulnerable households and exploring rainwater harvesting jars as alternative safe water sources for those who may be excluded from piped systems. Additionally, advocacy efforts aim to establish pro-poor yard tap tariffs, further advancing equitable access to water services.

## Conclusion and Next Steps

Ensuring universal access to piped water supply in African households requires **scalable, innovative, and financially sustainable approaches**. This case study highlights the diverse models being used in Malawi, Rwanda, Tanzania and Uganda, and the lessons learned from their implementation. Moving forward, countries should continue exploring:

- **Targeted subsidies and financing mechanisms** to support low-income households.
- **Stronger institutional frameworks** to professionalize water service delivery.
- **Integration of climate resilience measures** to safeguard water supply in vulnerable communities.

By leveraging cross-country learning and collaborative partnerships, achieving universal household water connections in Africa is an attainable goal.

## References

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