



Sustainable WASH Systems Learning Partnership

# Adopting a Risk-Based Approach to Rural Water Supply Sustainability in Kenya

**SWS partners:**

Oxford University, UNICEF Kenya, Rural Focus Ltd., Kitui County government

**Country:**

Kenya

**Geographic focus:**

County government

**Sector:**

Rural water services for communities

**Primary actors targeted:**

County WASH actors, including the Kitui County government, development partners/donors, local non-governmental organizations, community-operated water schemes, and private sector actors

**Learning focus:**

Preventive maintenance model, monitoring system, information sharing

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**To learn more about the consortium members, visit:**

<http://www.water.ox.ac.uk/>,  
<http://www.unicef.org/kenya>, and  
<http://www.ruralfocus.com>

## Background

Devolution under Kenya's 2010 constitution assigns responsibility for water supply provision to 47 newly established counties. The Kitui County government became responsible for delivering water services to more than one million people in 2013. However, historically, existing investments have largely focused on building water supply infrastructure, leaving users to manage and maintain them after construction. These users are often poor and located in rural areas with limited capacity, finance, or support to make systems sustainable. As a result, long and frequent service disruptions leave people without water, leading to high social and economic costs.

## Solution

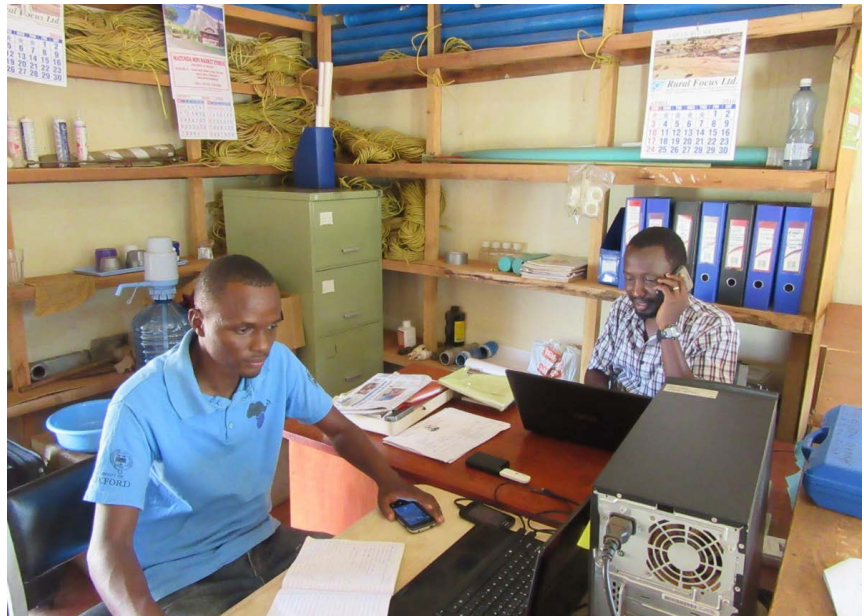
Oxford and UNICEF are developing, scaling-up, and testing the FundiFix model as one response to Kitui County's rural water challenge. The goal is to provide a model for universal, rural water service delivery. FundiFix provides a performance-based approach to maintaining water infrastructure, using 'smart handpumps' that collect real-time information on abstraction volumes and breakdown incidents. Oxford and UNICEF are incubating the local Kenyan company Miambani Ltd. to provide preventive maintenance for small-piped schemes and handpumps. Learning about and documenting the risks and returns of this approach will provide insights and direction for government, private sector, and communities to establish an empirical basis for improving policy, practice, and investments for water security for the poor. Oxford and UNICEF are working closely with government and other stakeholders, using an existing platform of quarterly County WASH Forums, to strengthen the institutional coordination necessary for effective service delivery.



## Our Approach

**Understanding the system:** Oxford and UNICEF are conducting a suite of analyses, including a water audit of major rural water infrastructure across Kitui county, a survey of water user behavior, and factor and network mapping to better understand what local stakeholders perceive as enablers or barriers to sustainable rural water supply. Results from these analyses are shared at County WASH Forums to inform actors' understanding of system behavior and performance.

**Strengthening the system:** Oxford and UNICEF are supporting County WASH Forums to convene county actors including donors, non-governmental organisations, government officers, and the private sector. These forums provide a platform for improving sector coordination and systematically documenting plans, interventions, and lessons learned in providing rural water services. Oxford and UNICEF are working with the county government to support the development and piloting of a prototype data management system to monitor the functionality of rural water services. They are also scaling-up the FundiFix model to include more rural piped schemes for communities, schools, and other facilities.



Miambani Ltd. has a team of technicians on call to fix handpumps and piped water supplies. Photo credit: Cliff Nyaga/Oxford University

A Water Services Maintenance Trust Fund was established in 2016 to pool user, government, donor, and investor finance to pay a professional maintenance service provider working at scale. Funding is released to the maintenance service provider based on agreed performance indicators and milestones to ensure reliable water supplies for all communities, schools, and health care facilities. The use of remote automated monitoring enables a regular flow of data to support a rapid repair service and inform sector monitoring, regulation, and resource management.

**Increasing sustainability:** By incubating a locally-owned social enterprise to offer professional maintenance services for rural water infrastructure at scale, Oxford and UNICEF aim to significantly improve the sustainability of rural water services. Lessons from demonstration of the FundiFix model will be used to influence county actors to increase their investment in and align strategies and policies with service maintenance. By facilitating dialogue on sustainability and performance of the FundiFix model, Oxford and UNICEF hope to catalyze adoption at scale and support the emergence of similar enterprises to offer maintenance services. Lessons will also be used to build government support for the Water Services Maintenance Trust Fund and development of policies that recognize the role of monitoring, maintenance, and private sector participation in rural water service delivery.

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**About the Sustainable WASH Systems Learning Partnership:** SWS is working to identify and test locally-driven solutions to the challenge of developing robust local systems capable of sustaining water, sanitation, and hygiene (WASH) service delivery. For more information, visit [www.globalwaters.org/SWS](http://www.globalwaters.org/SWS), or contact Elizabeth Jordan ([EJordan@usaid.gov](mailto:EJordan@usaid.gov)).