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Western Kenya Water Project

Reaching the Last Mile: Providing Safe Water to Rural Communities in Kakamega County



A satisfied customer accessing safe water in Kakamega County, ©USAID WKWP 2023

Rural communities obtain water from unprotected sources such as streams, rivers, and wells, which are unsafe for consumption and may lead to frequent epidemics. To help rural communities access safe water, the Kakamega County government adopted a Rural Water Company service delivery model to serve last-mile communities with potable water.

Kakamega County Rural Water Company

(KACRUWASCO) was established in 2021 but like many rural water projects, it faced a lot of challenges that brought it to the verge of collapsing and was considered not commercially viable. In September 2022, USAID Western Kenya Water Project (WKWP) conducted a joint assessment of the utility performance that informed critical gaps and provided a better understanding of challenges to inform targeted support. Some of the major gaps identified included weak financial management systems, weak institutional capacity, high levels of non-revenue water, poor customer database management, poor billing and revenue collection, and demotivated staff among others. WKWP advised the county to restructure and reorganize the company to address the management challenge where a new Managing Director was appointed in February 2023 and staff were deployed as required to manage the rural water schemes.

WKWP further trained the staff on operations and maintenance (O&M), and customer care to all the operators and coordinators of the company to improve on performance and efficiency. WKWP has also provided training in technical areas such as planning, prioritizing activities, monitoring, reporting progress, and acquiring a billing system to automate billing and collection. This has resulted in improvements in the delivery of water services. The utility has increased the water supply hours from an initial eight to twelve, providing timely responses to customers' complaints that are addressed within 24 to 48 hours, and improved governance and coverage from 18 to 31 schemes consequently increasing the customer base from 900 to 2,764. This has increased revenue from USD \$ 1,754 (KES 250,000) to USD \$ 8,417.4 (KES 1,200,000) between February and June 2023. WKWP is also supporting the county government to develop and enact relevant policies and legislation aimed at prioritizing and mainstreaming Water Sanitation and Hygiene (WASH) and Water Resources Management (WRM) agenda. Currently, WKWP is supporting the department to develop, review, undertake public participation, and sensitize

the relevant County Assembly Committees to enact Migori County Water and Sanitation Regulations, 2023 to operationalize the gazetted Migori County Water and Sanitation Act 2022.

After the visit, the team was motivated to innovate based on the lessons to improve the operations of the utility to better deliver its services. Key lessons included staff retention that has guaranteed continuity and sustainability of the company, harmonious working relations with the urban utility, and the use of technology to improve its efficiency.

KACRUWASCO has adopted a billing system that will aid revenue collection and improve billing and collection efficiency from 30% to 95%. The company expects to have revenue growth of USD \$ 21,043 (KES 3 million) by August 2023 and use the revenue to expand services in underserved areas. WKWP further supported the company to review and launch its strategy and business plan and acquire a three-year license from the Water Services Regulatory Board (WASREB) in June 2023. The project also lobbied and advocated for increased funding from the county government by sensitizing the members of the County Assembly Water Committee that saw increased allocation from USD \$ 210,434 (KES 30 million) in FY 2022/2023 to USD \$ 350,724 (KES 50 million) in FY2023/2024.

WKWP continues to provide coaching and mentorship to the rural utility to improve the connectivity of water services at the household level. Through a collaborative approach with the county government, WKWP identified two rural water schemes under KACRUWASCO that will be implemented to support last-mile measures through pipeline extensions and hybrid solarization to ensure reliable and safe water services to the last-mile communities.



This trip has been an eye opener. We have learnt a lot from NARUWASCO, and we have identified best practices that we will replicate. I have also realized the rural and urban WSPs have a good working relation and I will initiate discussions with the Board Chair of our urban WSP to have such kind of relation and we can jointly mobilize resources and work together in many ways.

**- Board Chair,
KACRUWASCO.**

Mobilizing Additional Funding for Water Sector in Migori County

The water sector in Kenya struggles to receive adequate funding for the realization of universal access to water as outlined in their national development plan—Vision 2030. For many utilities and counties, local revenue from tariffs is insufficient to sustainably self-fund the necessary operational and maintenance expenditures. This, therefore, requires increased investment backed by a strong enabling environment.

To mobilize increased funding to the water sector, USAID Western Kenya Water Project jointly with the Department of Water and Energy sensitized the Migori County Assembly Water and Finance Committees on the water sector priorities and budget absorption enhancement strategies encompassing legislation gaps that provide the enabling environment for sustaining water services. As a result, the water sector budget was increased from USD\$ 2,104,341 (KES 300 million) to USD\$ 2,932,048 (KES 418 million) in the 2023/2024 FY for water infrastructure investments and service delivery.

WKWP is also supporting the county government to develop and enact relevant policies and legislation aimed at prioritizing and mainstreaming Water Sanitation and Hygiene (WASH) and Water Resources Management (WRM) agenda. Currently, WKWP is supporting the department to develop, review, undertake public participation, and sensitize the relevant County Assembly Committees to enact Migori County Water and Sanitation Regulations, 2023 to operationalize the gazetted Migori County Water and Sanitation Act 2022.



In addition, WKWP signed an MOU and joint work plan with the county and water utility that highlight key priorities developed through a co-creation exercise. Some of the initial activities already done include drafting of the CIDP III 2022-2027 with water sector priorities, analysis of the water sector funding gap, capacity assessment of water utilities to inform targeted technical support, and creditworthiness assessment of two utilities (MIWASCO and NYASARE) to measure their financial stability to inform resource mobilization from the private sector, financiers, and available public-private partnerships (PPP). WKWP will support last-mile connectivity infrastructure to improve access to water in rural areas targeting 50,000 new users connected to quality water by 2027.



We appreciate the sensitization meeting we had with USAID WKWP. Through the skills gained in the water sector, budgeting, and legislation, we realized water should be given more consideration. We have passed the Migori Water and Sanitation Act and are now working on the regulations to operationalize the act. In addition, we have increased the water sector budget from USD\$ 2,152,853 (KES 300 million) to USD\$ 2,999,641 (KES 418 million) in the 2023/2024 FY. We are committed to providing any relevant support to the water sector to enhance sectoral performance.

**- Hon. Brian Osodo,
Chair Water and Energy Committee,
Migori County**

Digital Billing System Improves Efficiency of Rural Water Services

Water supply technologies offer potential benefits to both water suppliers and consumers, aiding cost recovery, water conservation, and service delivery. Bukura Ekapwonje Community Water Supply in Kakamega County has recently adopted an automated water billing system to increase accuracy and transparency in water billing, improve revenue collections, and reduce consumer water wastage and water theft.

The water project was established in 2013 by the Kakamega County government to provide safe water to households, health facilities, and institutions in Lurambi Sub County significantly reducing waterborne diseases and improving overall health outcomes contributing to sustainable development goals. The water project also has reduced the distance and time spent by women and school-going children on fetching untreated water from nearby rivers, about four kilometers (two-way) to half a kilometer.

In June 2023, USAID Western Kenya Water Project (WKWP) jointly with the county government assessed the performance of the water project and established key challenges that included high non-revenue water, high cost of operations and maintenance, inaccuracy in billing and collections and poor management practices. The



Training Bukura Epwonje Water Project committee on the use of the billing system in Kakamega County, ©USAID WKWP 2023.

committee could only collect an average of 30% of what they billed because it was done manually. To support the rural water project to professionalize and digitize their operations to improve efficiency and accountability, WKWP engaged RUWASCO a solution provider, and introduced them to the county Department of Water and Bukura Ekapwonje Community Water to provide solutions in billing and improving customer service.

RUWASCO identified the SchemeCloud system as a suitable solution to streamline and digitize the operations of the water project. SchemeCloud is a **MPESA integrated online-based system that enables automation of the whole water billing cycle**. The system comes with all features that help in the management of members' records, meters, meter readings, bills, payments, and reports. Meter reading is done through an Android App and the data is sent to a web App that computes and sends invoices to consumers in real-time via short messaging service (SMS). Consumers pay cashless via MPESA, and the money is transferred to the utility's bank account in real time, eliminating loss of money due to theft and corruption. The use of the Android App makes meter reading faster, while the automatic computation of the bills via the system minimizes errors to zero.

RUWASCO set up the system (free of charge) to leverage the efforts of the county and WKWP toward efficient water service delivery. The committee provided all the information that was needed for migrating from manual operations to digital. In late June 2023, the system was installed, the committee was trained, and the billing system was pilot-tested for full operationalization. The digital billing system has marked a significant milestone in the transition from manual billing methods. The adoption of SchemeCloud has significantly increased efficiency since the billing is done on time and reduced customer complaints because of inaccuracy in billing.

Between June 2023 and August 2023, the water project witnessed a 33% increase in revenue collection (from about USD 411 to USD 548) due to timely billing and an up-to-date customer database. The increased revenue is expected to support pipeline extension to a target of 7500 from 2500 people. WKWP will continue providing targeted advisory services to the committee through mentorship, coaching, and training to fully operationalize the system.



We are grateful for USAID WKWP linking us with RUWASCO for the billing solution. The manual invoicing was tedious, you'll have to follow up with your customers for payments. This process increased complaints, defaulters, and delays in payment.

**- Chair,
Bukura Ekapwonje
Community Water.**

Relief for Kochia residents in Homabay County as they receive safe water



A woman fetching water from the Kochia Water Scheme kiosk in Homabay County, ©USAID WKWP 2023

Residents of the Kochia area rejoice after receiving safe drinking water following 48 months of using untreated water from the lake and shallow wells due to the breakdown of the Kochia water scheme which has now been repaired. Two water Kiosks and additional legal individual connections have been activated serving approximately 600 people with safe water.

Kochia water scheme like most rural water projects failed due to challenges attributed to weak financial management systems, and technical capacity to run the water project. Other challenges included illegal connections, faulty meters, proper asset maintenance of the infrastructure, lack of a proper mechanism to follow up on payments, limited knowledge, and poor practice for water treatment. The scheme was managed by both the community and the county staff operating 200 individual connections and one water kiosk before the breakdown.

To address these challenges USAID Western Kenya Water Project (WKWP) together with the county government of Homabay, conducted a technical assessment of the water project to inform targeted support to revive its operations. In May 2023, WKWP and the county government organized a two- and half-day training for 26 water operators on operation and maintenance, customer service, and performance monitoring. After the training, the county deployed three water operators to the Kochia water scheme to help revive its operations after rehabilitation works funded by Lake Victoria South Water Works Agency. Other trained water operators were also dispatched to support other water schemes within the county.

WKWP further provided onsite coaching and mentorship to the deployed staff on water quality issues, general asset maintenance, and the implementation of performance monitoring. There has been a notable improvement in the performance of Kochia water supply and in the month of June (from 15 to 30) 2023, they collected a revenue of USD \$ 83.27 (KES 1,890), from the two water kiosks and five individual connections. Customer relations have improved, and the trained water operators are currently engaging customers in a friendly manner. Furthermore, the hours of supply have been increased from the initial six to twelve.

WKWP jointly with the county government will further support the scheme to develop and implement performance monitoring plans, a business plan, and additional training on operation & maintenance to enable increased connections to serve the growing demand.



We are happy that the safe water was restored. It has not been easy to fetch water from the lake which was untreated, tiring and time consuming

**- Resident
Kochia.**

Protecting and Restoring Nyakomisaro Riana Catchment in Kisii County

In many counties in Kenya, rapid population growth, urbanization, and destructive human activities have placed great strain on the fresh potable water supply. Nyakomisaro River in Kisii County serves about 80% of the residents (112,000 people) within the municipality and her satellite urban centers. The increased anthropogenic activities such as the dumping of wastes and motor vehicle washing along the tributary lines affect the quality and quantity of the water.

To protect and restore the Nyakomisaro water catchment, with funding from USAID, the Western Kenya Water Project (WKWP) jointly with the Kisii County government and Water Resources Authority (WRA)



Members Nyakomisaro WRUA during the transect walk along Nyakomisaro sub-catchment, ©USAID WKWP 2023.

trained Nyakomisaro Riana Water Resource User Association (WRUA), equipping them with knowledge on the best water resources management practices, and strategies for stimulating advocacy actions on restoration and protection of water catchment areas. The training also enabled the WRUA members to understand the existing institutional framework, stakeholder engagement, and their role in advocating for the protection and restoration of riparian lands.

Based on the training received, in April 2023, Nyakomisaro-Riana WRUA conducted a transect walk to identify the sites that were polluted and the key pollutants in the Nyakomisaro Riana sub-catchment. The members identified raw sewer deposits into the Nyakomisaro River from the Gusii Water and Sanitation Company Limited (GWASCO) sewer line that had been damaged by the road contractors affecting the water quality. The transect walk findings informed evidence-based advocacy sessions with the National Environment Management Authority

(NEMA) to enhance compliance with the regulations on Waste Management and Environmental Conservation. As a result of the WRUA's advocacy initiative, NEMA compelled the road contractors to repair the sewer line which was done.

The WRUA has also initiated a partnership with a local radio station Egesa FM to hold radio talk shows to create awareness on catchment



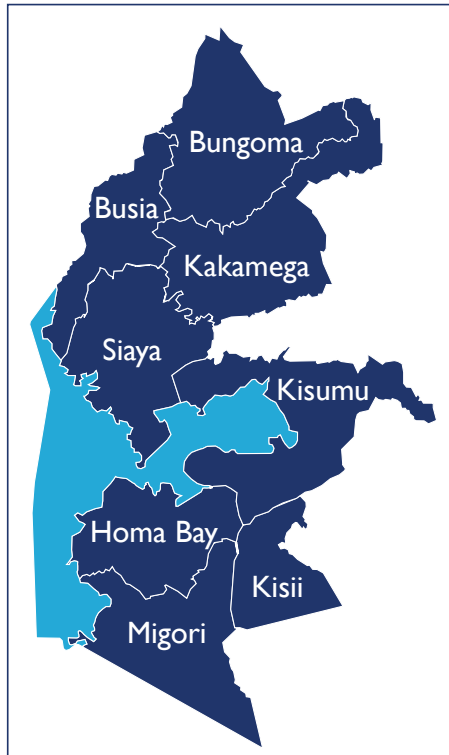
As a county, we appreciate the interventions by USAID Western Kenya Water Project to strengthen the capacity of our conservation groups, especially WRUAs, to meaningfully participate in the restoration and protection of our catchments

**- Director of Environment
Kisii County**

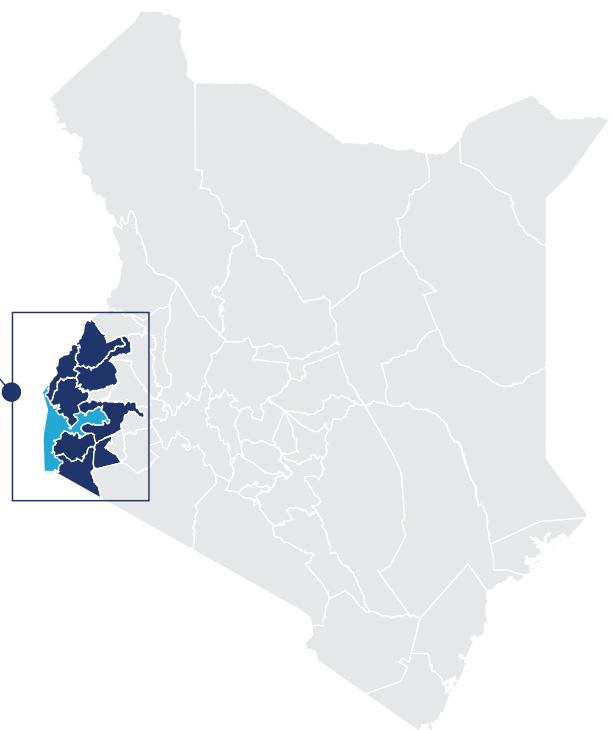
conservation, restoration, and rehabilitation measures targeting youth, women, farmers, car wash station owners, and developers to meaningfully participate in the rehabilitation and protection of the catchment.

Further, USAID WKWP jointly with other partners supported the Nyakomisaro WRUA to meaningfully participate in the World Environment Day 2023 build-up activities where they planted 8,000 trees at Nyanturogo wetland and cleaned the Nyakomisaro River. USAID WKWP will continue to engage the WRUA to undertake advocacy initiatives and link them with partners and financiers to support catchment conservation, restoration, and rehabilitation measures to improve the water quality and quantity.

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