

WATER OPERATORS' PARTNERSHIP

# CASE STUDY



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VEI B.V., The Netherlands **MENTOR**

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Nakuru County  
(NAWASSCO, NARUWASCO, &  
NAIVAWASCO) Kenya **MENTEE**

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November 2022



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# Abbreviations

ASAL	Arid Semi-Arid Lands
FPE	Free Primary Education
FSM	Faecal Sludge Management
HDI	Human Development Index
KWEI	Kenya Water Institute
LIAs	Low Income Areas LIAs
MDGs	Millennium Development Goals
MP	Members of Parliament
NAIVAWASCO	Nakuru Water and Sanitation Services Company Ltd
NARUWASCO	Nakuru Rural Water and Sanitation Company Ltd
NAWASSCO	Naivasha Water and Sanitation Company Ltd
NDMA	National Drought Management Authority
NWCPC	National Water Conservation and Pipeline Corporation
RPM	Resident Project Manager
SDGs	Sustainable Development Goals
TVETA	Technical Vocational Education and Training Authority
WASREB	Water Services Regulatory Board
WOPs	Water Operator Partnerships
WSPs	Water Service Providers
WWX	WaterWorX
SNV	Stichting Nederlandse Vrijwilligers ("Foundation of Netherlands Volunteers")
WASSUP	Water and Sanitation for the Urban Poor

# Key Facts

WaterWorX (WWX) is a partnership of public water operators to increase access to sustainable water services for 10 million people between 2017-2030. The WaterWorX Programme is co-funded and jointly implemented by the Dutch Ministry of Foreign Affairs (DGIS), 10 Dutch water operators, and local water operators throughout Africa, Asia, and South America. By working together in Water Operator Partnerships (WOPs), water utilities can improve operational, maintenance, financial, and administrative processes. In doing so, the continued strength of WaterWorX stands out in building and strengthening the capacity of Kenyan counterparts to make lasting improvements that increase access to sustainable water services and generate viable pro-poor investment propositions.

More information

[gwopa.org/what-we-do/projects/waterworx](http://gwopa.org/what-we-do/projects/waterworx)

## Partners

The Nakuru WOP matched three County Water Service Providers (WSPs) as mentees -Nakuru Water and Sanitation Services Company Ltd (NAWASSCO), Nakuru Rural Water and Sanitation Company Ltd (NARUWASCO), and Naivasha Water and Sanitation Company Ltd (NAIVAWASCO)- with the Dutch operator VEI B.V. as mentor.

## Kenyan Partners

### **Nakuru Water and Sanitation Services Company Ltd (NAWASSCO)**

NAWASSCO is a private company, registered on September 8, 2003, under the Companies Act (Chapter 486, Laws of Kenya registered). Its major shareholder is the County Government of Nakuru. NAWASSCO provides water and sanitation services within Nakuru East and Nakuru West Sub-counties.

## **Nakuru Rural Water and Sanitation Company Ltd (NARUWASCO)**

NARUWASCO was incorporated under the Companies Act, Cap 486 of the Laws of Kenya (Certificate of Incorporation Number C.128339 dated 14th September 2006). The company was primarily established to provide clean water and sanitation services within its area of jurisdiction. The Memorandum and Articles of Association of the company have been aligned to the Constitution 2010, which provides that water services are a devolved function. Accordingly, the company is now fully owned by the County Government of Nakuru. The service area of the company is the whole of Nakuru County except Nakuru Urban Centre and Naivasha Sub-County.

## **Naivasha Water and Sanitation Company Ltd (NAIVAWASCO)**

The Naivasha Water and Sanitation Company (NAIVAWASCO) is a private limited liability company registered in 2005 and wholly owned by the County Government of Nakuru. The company's primary mandate is to provide water, sewerage, and sanitation services to the residents of Naivasha Sub County.

## **Dutch Partner**

VEI B.V. is a Dutch not-for-profit public limited company established in 2005 by Dutch water utilities. VEI is a full subsidiary of Vitens N.V. and Evides N.V. and implements their international Corporate Social Responsibility policy on behalf of seven Dutch drinking water partners: Vitens N.V., Evides Waterbedrijf N.V., WML, Waterbedrijf Groningen, Brabant Water, WLN and PWN.

VEI implements Water Operator Partnerships (WOPs) with several water operators, aiming at sharing knowledge and skills to make the partner water operators stronger, financially sustainable, and more (climate) resilient. VEI creates improved access to water and sanitation services, for approximately 350,000 people every year, mostly in low-income areas in Africa, Asia, and Latin America.

Standing side by side with water operators, VEI strives to continuously increase its impact on people living in poverty, by systemically improving the maturity of the working processes of its WOP partners, supported by peer-to-peer collaboration, training, technical assistance, and smart investments.

## Duration of the WOP

2017-2021 WaterWorX.

## Cost

The total cost of the WOP was €3,014,587.

## Objectives

The main objectives of the WWX1 project between VEI and Nakuru County were to increase and improve water and sanitation services in Nakuru County in line with the Sustainable Development Goals (SDGs).

## Specific Objectives

To promote benchmarking activities, increase water and sanitation coverage, increase water supply, improve distribution management (NRW), and establish a strong customer-support mechanism.

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To promote benchmarking activities, increase water and sanitation coverage, increase water supply, improve distribution management (NRW), and establish a strong customer-support mechanism.

## Project Improvement Tracks

- Faecal Sludge Management
- Non- Revenue Water Management
- Pro-Poor
- GIS
- Water Safety Planning
- Climate Resilience
- Energy Reduction
- ERP System

## Mentor's Motivations

VEI has a twofold mission objective. First, VEI wants to contribute to Sustainable Development Goal number 6: achieving universal and sustainable access to water and sanitation by 2030. VEI wants to help a total number of 11.5 million people directly or indirectly to benefit from sustainable water services over the period 2015-2030. Secondly, VEI embraced the mission to strengthen the internal and external reputation of the partnering water operators and make them utilities leading in the drinking water sector.

## Nakuru County's Motivation

The main interest of Nakuru County was to provide better water and sanitation services to its residents and to enable the three (03) utilities to attract and manage large-scale investments. All three utilities have since 2012 been partnering with VEI in other WOPs, and through the WOPs, staff capacities in different fields have been built over time. The WWX1 WOP complements and builds on the previous experiences and provides the three utilities with a platform to continue learning and sharing with each other while addressing the gaps, stakeholder management, reducing the high Non-Revenue Water, providing improved services to the residents in the Low-Income Areas (LIAs), expanding the water and sewerage network and access to sanitation and Faecal Sludge Management (FSM) in the County and strengthening the governance structures in the three utilities.

## Facilitators

The WOP between VEI and Nakuru County was facilitated by the County Executive Committee member (CEC) Water, Environment and Natural Resources. CEC played a crucial role in ensuring good relationships across all stakeholders. Because the utilities had no prior history working together, each worked individually, the partnership would have been difficult without its intervention.

## Specificities of the Approach

This WOP had three utilities (NAWASSCO, NARUWASCO, and NAIVAWSCO) working together. Even if the three are all in the same county, Nakuru County, working together was a new way for them. It took time for the three utilities to get to know each other and to build trust towards a collaborative approach. This WOP presented several components not necessarily found in all WOPs, making it especially efficient. There was an investment in new technologies to improve the efficiency of the utilities.

Stakeholder engagement was a significant part, and stakeholder platforms were created that extended even outside of the three utilities. These stakeholder platforms have been endorsed and gazetted.



A key aspect of this WOP programme was supporting the utilities with resource mobilisation and bringing other partners on board to support the programme initiatives. Staff from the utilities were trained in proposal development. Several projects were developed and submitted to various partners for financing. The WOP also formed a partnership with the Water Resources Authority. The partnership was enriched with collaborations with other partners, e.g., IWRM-WASH Nexus (WWF, WWn, AW), MetaMeta Sponge City approach, and World Bank condominium sewers. With these collaborations, the partnership was able to handle a very broad scope of challenges.

The project also explored innovative financing from partners like FinishInK, Aqua4All, KPWF/WFF (Kenya Pool Water Fund) and KIFFWA.

FinishInK, who supported the containment part of the sanitation value chain, introduced a 'diamond model' that brought together Government Health Departments, Financial Institutions, and Households. Through this collaboration, households were supported to invest in sanitation. This model, which supported the financing of households, saw several toilets constructed at the household level. Training was done for households, Public Health department officials, and community health volunteers, which efforts increased sanitation uptake. Aqua4all supported safe disposal with support to NAWASCOAL.

## Results

- Co-financing of an ERP system.
- Customized Capacity Training Programme implemented with corresponding staff and resources.
- Successful implementation of the NRW reduction projects.
- Secondment by the mentor of Stakeholder Managers who have prepared the first draft of 'Climate Resilient Water Supply Plan – 2050'.
- Ongoing implementation of a pre-paid system, water kiosks, and extension of the network in low-income areas.
- Participating in five Water for Life projects The WWX programme supported the development and submission of project proposals targeting Water for Life funding for pro-poor areas.
- Improved supply continuity (measured as average hours of supply) for the three utilities.
- Reduced NRW (%) for Nakuru Urban and Rural to a large extent while it was minimally reduced for Naivasha. Nakuru Urban (NAWASSCO): Eastmore DMA reduced NRW from 42% to 15%, Mawanga DMA reduced NRW from 70% to 24%, and Natewa DMA reduced NRW from 46% to 18%. Nakuru Rural (NARUWASCO): Chepseon reduced NRW from 67% to 16%. Naivasha (NAIVAWASCO): CBD Naivasha DMA reduced NRW from 49% to 47%, and Lakeview DMA reduced NRW from 79% to 55%.
- Increased revenue collection efficiency for all 3 utilities (though below 90%target).

- Improved operation ratio for 2 of the 3 utilities (except Nakuru Rural) but still below the 1,2 (120%) WWX target.
- A visible change in livelihoods, especially for the poor, thanks to improved sanitary conditions at the household level.

## Success Factors

- Openness and transparency on the available budget.
- Integration of VEI staff with the utility staff.
- The level of communication in the partnership, i.e., monthly meetings with the Managing Directors of the 3 utilities.
- Close engagement with the utilities through regular meetings with top management of the utilities.
- Ownership of the project by the utilities who were allowed to do the procurements on the project.

## Challenges

The main challenge was that NRW management was a key improvement area under the WOP, and it required a big investment. There was often a lack of investment funds, which resulted in activities stalling.

# Introduction

## About Nakuru County About Nakuru County

Nakuru County is one of the 47 Counties of the Republic of Kenya established in the Constitution of Kenya 2010. It covers 7498.8 km<sup>2</sup> and has an estimated population of 2,162,202, according to the 2019 National Census. The County is divided into 11 Sub-Counties/Constituencies and 55 wards. The County Headquarters are in Nakuru Town. The County's main topographical features are the Mau Escarpment covering the Western part of the County, the Rift Valley floor, Oldonyo Eburru volcano, Akira plains, and Menengai Crater. It has three major lakes, namely, Lake Nakuru, Lake Naivasha, and Lake Elementaita.

## Public Services in Nakuru

According to the County Department of Water, 63% of the households (HH) have access to improved treated water, which is either piped, rainwater, borehole, protected well, or protected springs. Most households spend less than the WHO thirty minutes (30) duration to get access to water. The Water Resource Management Authority (WRMA) and Rift Valley Water Services Board are responsible for water resource management and regulatory services in Nakuru. There are three County-owned water service providers, namely, Naivasha Water Sewerage and Sanitation Co. Ltd (NAIVAWASCO), Nakuru Water Sewerage and Sanitation Co. Ltd (NAWASSCO), and Nakuru Rural Water and Sanitation Co. Ltd (NARUWASSCO).

There are a total of 459 health facilities in Nakuru County, among them one level 5 hospital, which is Nakuru Provincial General Hospital (PGH), which serves Nakuru, Baringo, Nyandarua, and Laikipia counties.

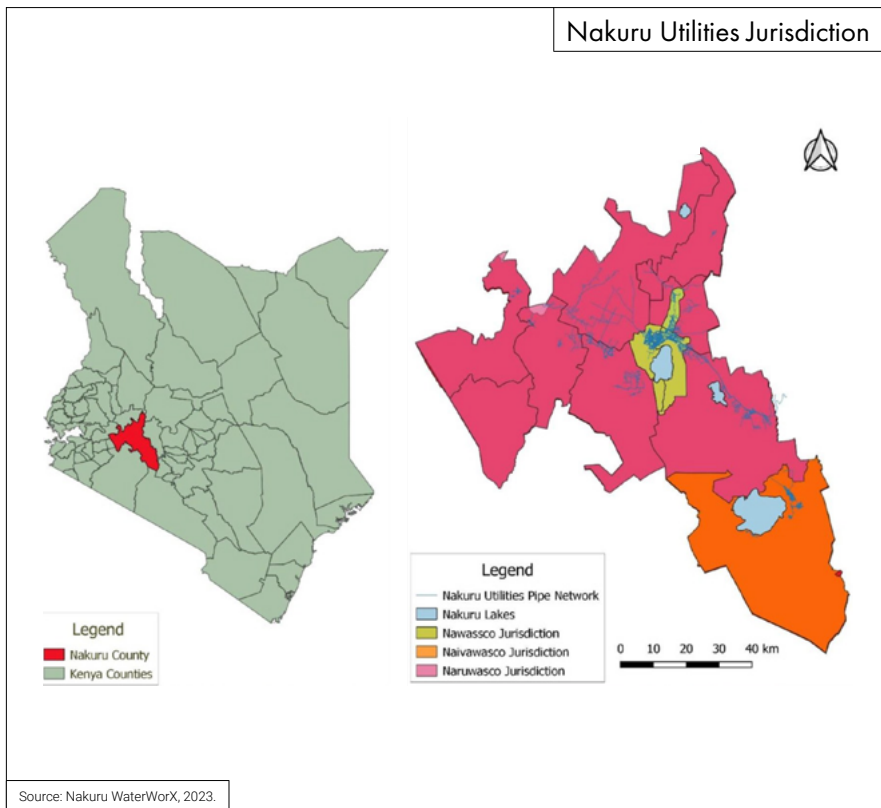
## An Economy Based on Agriculture

Nakuru County's major economic activities include agriculture, tourism, and financial services. Agriculture is the lifeline of the economy of Nakuru County, as 70% of the 7,495.1 Km<sup>2</sup> of the county's land is arable and highly productive land. The poverty level for the County is 29.1%, below the national target which is 36. Nonetheless, the county's ecological system is robust, and Nakuru residents depend on it for other economic activities such as tourism, energy, and many other beneficial economic activities.

# A County with Abundant Water Resources

The main topographical features in Nakuru County are the Mau Escarpment, the Rift Valley floor, Ol-Doinyo Eburru Volcano, Akira Plains, and Menengai Crater. The County boasts of an elaborate drainage and relief system with various inland lakes on the floor of the Rift Valley, where nearly all the permanent rivers and streams in the County drain. The county has a bimodal rainfall pattern with a high of 1800 mm and a low of 500 mm. Nakuru County usually has long rains between March, April, May, and June, while short rains occur between October and November.

It also has a wealth of natural water resources, which include rivers, shallow wells, springs, dams, pans, and boreholes spread all over the county. The major rivers are Malewa, Njoro, Molo, and Igwamiti. These rivers include rivers Njoro and Makalia, which drain into Lake Nakuru, Malewa, which drains into Lake Naivasha; and Molo River, which drains into Lake Baringo, among others. Underground water is sourced from boreholes, springs, and shallow wells.



# Partnership Creation

## The First Contact of the Partners

The collaboration between Kenya and the Netherlands spans way back to the early 2000s when the Dutch established flower farms in the Naivasha region. The Dutch have, therefore, been present in Kenya since then. The collaboration between the Dutch and the Kenyan water sector was birthed with VEI collaborating with NAWASSCO in 2011 during the Kisumu-Nakuru project. The project, whose focus was improving the quality of water, reducing NRW, reaching the poor, and optimizing the wastewater treatment plant, ended in 2015.

During this project, specifically in 2012, the pro-poor section within NAWASSCO was established. Later, NAWASSCO and VEI partnered via the PEWAK project and the Nakuru County Sanitation Programme (2013 – 2018). The sanitation project focused on closing the sanitation cycle in Nakuru County. PEWAK focused on benchmarking, NRW management, and pro-poor coordination. Towards the closure of this programme, the EU NAWASSCOAL project was formed and supported by VEI, SNV, and WaSSUP. This project was aimed at waste recycling, where faeces and sawdust are carbonized, then mixed with molasses and used as fuel. The aim was to limit charcoal use. This project is still running.

VEI and NAIWAWASCO have been partnering in a Water Operator Partnership from 2012. This was funded by the Embassy of the Kingdom of the Netherlands in Nairobi. The WOP ended in August 2018.

VEI and NARUWASCO first partnered in an NRW project financed by SNV in 2016. After that, NARUWASCO partnered with VEI under the RVO-funded PEWAK project, this project focused on benchmarking, NRW management, and pro-poor coordination.

The WWX programme commenced in 2019. Through the WWX programme, VEI partnered with all 3 utilities in Nakuru County, i.e., NAWASSCO, NARUWASCO, and NAIWAWASCO. WWX Phase I runs from 2019 until December 2021.

# Enabling Factors

The Office of the County Executive Committee (CEC) Water, Environment, and Natural Resources facilitated the coming together of the utilities. The CEC is the Ministry of Water at the County level for the 3 utilities. He played a key role in bringing the 3-utilities together and VEI by encouraging the utilities to work together and promote best practices amongst themselves. He personally participated in the monthly meetings with the utilities and supported cooperation among the three.

Even though VEI had worked with each of these utilities separately, the utilities had each been on their own, so building trust to work together did not come easy. Previously, VEI was working with other partners and the utilities, and this time, it was directly with the utilities. The VEI Coordinator spent the most part of 2017 when the project started on trust building. The different utilities were at different levels, NAWASSCO was better performing than the other two, NARUWASCO and NAIWASCO. The programme promoted cooperation of the 3 utilities, it helped each utility understand what the other utility is doing as they were working towards a common goal.

Openness and transparency were important factors in making the partnership successful. Receptivity to solutions played a big role in how much a specific utility benefitted. The available pot was known by all partners, and the share of a utility depended on the proactiveness of the utility in putting forth their needs and requirements.

# Partnership Formalization

## Mentor

### About VEI

VEI B.V. is a Dutch not for profit public limited company established in 2005 by Dutch water utilities. VEI is a full subsidiary of Vitens N.V. and Evides N.V. and implements their international Corporate Social Responsibility policy on behalf of seven Dutch drinking water partners: Vitens N.V., Evides Waterbedrijf N.V., WML, Waterbedrijf Groningen, Brabant Water, WLN and PWN.

VEI implements Water Operator Partnerships (WOPs) with dozens of water operators, aiming at sharing knowledge and skills to make the partner water operators stronger, financially sustainable, and more (climate) resilient. VEI creates improved access to water and sanitation services, for approximately 350,000 people every year, mostly in low-income areas in Africa, Asia, and Latin America.

VEI strives to continuously increase its impact on people living in poverty, by systemically improving the maturity of the working processes of its WOP partners, supported by peer-to-peer collaboration, training, technical assistance, and smart investments.

## Motivation for Mentor Engagement in WOP

VEI has a two-fold mission objective. When VEI was founded in 2005, these two mission objectives were already set in the statutes of VEI.

### Mission 1

VEI aims to contribute to Sustainable Development Goal 6 (SDG6): achieving universal and sustainable access to water and sanitation by 2030. VEI wants to help a total number of 11.5 million people directly or indirectly to benefit from sustainable water services over the period 2015-2030.

## Mission 2

VEI aims to strengthen the internal and external reputation of its partner water operators to become leading operators in the drinking water sector.

## Vision

In the vision of VEI, the 2 mission objectives come together in organizing peer support between water operators. Sharing experiences between water companies brings tangible benefits for all parties. In that respect, VEI has a real win-win approach where peer support is the way in which both water operators in a Water Operator Partnership (WOP) benefit from the collaboration. VEI organizes the solidarity between water operators to enable them to serve their customers better.

## KPIs VEI Partner Utilities 2020

Vitens, Evides, Brabant Water, PWN, Waterbedrijf Groningen, WML

Population served (in millions)	13,89 customers
Number of households (in millions)	6,7
Water produced (millions of m3)	970
Number of employees	3683
Number of water treatment plants	n/a
Length of network (in kilometers)	103,410 km
Unaccounted for water (percent of total)	n/a
Staff per 1000 connections (water supply)	0.55
Staff per 1000 population served (water supply)	0.26
Turnover (in millions EUR)	1,063
Average drinking water price per m3 (EUR)	1,04 (Vitens)

## Kenyan Partners

General size and service characteristics of the partner utilities.



## Nakuru Water and Sanitation Company (NAWASSCO) KPIs NAWASSCO

Population served	530,000
Number of households	110,000
Water produced	1,010,000 m <sup>3</sup> per month
Number of employees	175
Number of water treatment plants	3 and 1 dosing point
Length of network (in kilometers)	854
Unaccounted for water (percent of total)	31%
Staff per 1000 connections (water supply)	3
Staff per 1000 population served (water supply)	0.3
Turnover (in millions EUR)	€690,495.53 (85m ksh)

## Nakuru Rural Water and Sanitation Company (NARUWASSCO)

NARUWASSCO was incorporated under the Companies Act, Cap 486 of the Laws of Kenya (Certificate of Incorporation Number C.128339 dated 14th September 2006). The company was primarily established to provide clean water and sanitation services within its area of jurisdiction. The Memorandum and Articles of Association of the company are aligned with the Constitution 2010, providing that water services are a devolved function. Accordingly, the company is fully owned by the County Government of Nakuru.

The company has 9 Board Members (seven competitively recruited to represent stakeholders, and two representing the county government of Nakuru). The service area of the company is the whole of Nakuru County except Nakuru and Naivasha Urban Centers.

The day-to-day management of the activities of the company is in the hands of the staff headed by the Managing Director. NARUWASSCO's area of jurisdiction, with a population of 1.1 million (2009 Census) has been divided into five distinct administrative regions/areas headed by Area Managers: Eastern, Northern, Central, Western, and Southern. NARUWASSCO currently serves a population of 594,014.

## KPIs NARUWASCO

Population served	549,014
Number of households	23,325,000 connections
Water produced (millions of m3)	8,26
Number of employees	150
Number of water treatment plants	2 Convectional T/Works
Length of network (in kilometres)	1.088.637.1
Unaccounted for water (percent of total)	57%
Number of connections (Total connections)	25,018
Staff per 1000 connections (water supply)	8
Staff per 1000 population served (water supply)	8
Turnover (in millions EUR)	5.6
Average drinking water price per m3 (EUR)	65

## Naivasha Water and Sanitation Company (NAIVAWASCO)

The Naivasha Water and Sanitation Company (NAIVAWASCO) is a private limited liability company registered in 2005 and wholly owned by the County Government of Nakuru. The company's primary mandate is to provide water, sewerage, and sanitation services to the residents of Naivasha Sub County. Its roles and responsibilities include producing and supplying clean water, carrying out operation and maintenance of the water distribution system, servicing the wastewater network, procuring services and goods to carry out its mandate, collecting revenues, and making payments to various suppliers.

Water and sanitation are major components and enablers of the Big Four Agenda due to the nexus to Food Security, Affordable Housing, Manufacturing, and Affordable Healthcare. Hence, part of the mandate of the company is contributing to the realisation of the Big Four Agenda.

## KPIs NAIVAWASCO

Population served	203,591
Number of connections	50,897.75
Water produced	1,899,235
Number of employees	87
Number of water treatment plants	6

Length of network (in kilometers)	309
Unaccounted for water (percent of total)	28%
Staff per 1000 connections (water supply)	10.7
Staff per 1000 population served (water supply)	0.43
Turnover (in millions EUR)	1,536,304.63
Average drinking water price per m3 (EUR)	0.9

## Funds Disbursement

The funds were provided by VEI, and the disbursement was based on needs as expressed by the individual utilities.

## Motivation for the Utility

This WOP had a unique focus on informal settlements. This focus was a boost to the utilities' operations and increased the chances of the utilities achieving the SDGs. 'Most utilities do not have a strong focus on the informal areas or poor areas, which is basically about 50% of the population, and yet the mandate of the utilities is service to all. If you are not able to serve everyone, it means you are failing' Zaituni Kanenje TA WWX Pro-poor Lead NAWASSCO

## Facilitator Characteristics and Nature of Facilitation

The County Executive Committee member (CEC) Water, Environment and Natural Resources, was the facilitator for this WOP. CEC played a key role in ensuring good relationships across different groups of stakeholders. The partnership would have been cumbersome without their intervention.

## Financing (of the WOP)

The available funds for the partnership were €3,014,587. The funds were from the Dutch Government and channelled through VEI. From the project implementation, the utilities contributed to the tune of €750,000, with NAWASSCO offering 50%, NARUWASCO 30%, and NAIWAWASCO 20% to support the ERP System.

## Diagnosis of Needs

Several discussions were held on the needs of the three utilities (Nakuru, Naruwasco and Naivawasco). A steering committee was formed, consisting of the Managing Directors (MDs) of the utilities, to refine their needs. The first step was to get to know each other.

## Agreement Characteristics

A Memorandum of Understanding was signed by the 3 utilities, the County Government, and VEI. This partnership run from Jan 2019 – Dec 2021.

According to the project document, the expected outcomes from the project stipulated in the agreement were as indicated below:

### Project Outcome(s)

The outcomes of the first WOP phase (2021) include:

#### Work Package 1: People & Organisation

- **Improved management capacities of the three utilities:** have educated and prepared at least 15 top and middle-managers;
- **A cross-county Enterprise Resource Planning System (ERP):** Having one software, running on the same server for the three utilities.;
- **Inter-County benchmark steering committee** Benchmarking with the three utilities will be implemented. A steering committee will be installed to monitor this.
- **Organisational improvement:** assessment of the structure of the organisation will result in a more effective and efficient organisation;
- **Projects implemented to provide people with direct access to improved water and sanitation facilities:** Through the activities of "Improved services in the county", "Upscaling Nakuru County Sanitation Programme" and "Assisting coverage in remote areas & Itare dam" several projects will be developed and implemented;

- **Sustainable water supply vision:** To sustain the natural resources a program for climate resistant water supply in 2050 will be created;
- **Improved gender balancing:** Policies for, which entail the Kenyan Gender law, will be drafted and implemented.
- **Pre-feasibility study Itare dam:** The Itare dam project is ongoing and is in need for a plan to bring the water from designed reservoirs to several towns in Nakuru County. The partners will assist in this process by financing the pre-feasibility study. It is expected that the water will reach residents at the beginning of 2022.

## Improved Services in the County Through Collaboration

- **Inter-county collaborative platform:** To increase the sanitation and water coverage of Nakuru County as a whole, collaboration between the three utilities will be promoted.
- **Inter-county benchmarking:** One of the items of the platform will be benchmarking. To compare and learn from one another.
- **Joint proposals developed and implemented:** Joint proposals with the following targets will be developed and implemented:
  - Effectively increase water and/or sanitation coverage
  - Effectively increase water supply
  - Effectively improve distribution & sales (NRW reduction)

These proposals will be developed by the three utilities, together with the project manager from VEI and may contain technical assistance and/or hardware. A win-win situation will be created. Proposals should be developed, using the activities of the work packages 2 & 3.

- **Stakeholder managers hired:** To assist the inter-county collaboration and manage other stakeholders, the three utilities will hire stakeholder managers, as their own contribution.

## Sanitation Services – Upscaling Nakuru County Sanitation Programme

**Improved access to sanitation services in Nakuru County;** By upscaling the activities done under the European Union funder Nakuru County Sanitation Programme, the partnership will build toilet blocks and providing sanitation services to an additional 64.155 residents.

## Assisting Coverage in Remote Areas

**Improved access to water services in remote areas of Nakuru County;** Nakuru County has several rural villages with no access to improved water services. The partnership will develop and implement project to give access to 25.778 residents of Nakuru County.

## Enabling Environment

**Align actions with the Costed Action plan of the Ministry of Foreign Affairs;** The Costed Action plan of the Ministry of Foreign Affairs of the Netherlands will focus on three counties in Kenya, one of them is Nakuru. To make the best use of resources, the Nakuru WOP has to regularly consult with a representative of the Ministry of Foreign Affairs to align the actions.

# Project Implementation

## Management of the Partnership and Inter-organizational Dynamics

According to the partners, the partners did not share an approach in terms of the roles to be played, the way of communicating, or decision-making. Stakeholder managers were put in place to help manage the partnership; however, their roles were not very clear. It was unclear how to handle feedback, or who was responsible for what approvals.

Technical assistants were also put in place to support the project, and the roles for these at least were clearer than those of the stakeholder managers.

### Meetings

The three MDs of the different utilities, together with the VEI lead, held joint monthly meetings. Also, the different component heads met quite often with their specific teams based on the specific areas they worked on.

In the beginning, meetings were very formal. The resident project manager (RPM) needed to book an appointment with the managing directors for a meeting to take place. As the project progressed, interactions became more informal. On a monthly basis, the MDs met with the RPM to discuss progress so far and agree on activities for the month as guidance to the MDs. Thereafter, the MDs had the freedom to work guided by the agreed plan for the month.

# Improvement Tracks Implementation

## Improvement Track 1: Faecal Sludge Management

### Objective

To institutionalize FSM in the utilities and establish a sanitation business case for the utilities.

### Areas of Improvement

Capacity for Faecal sludge management was improved through the following:

- Sanitation mapping
- Toilet construction & rehabilitation
- Developing a sanitation database
- Implementation of Sanitation policies and guidelines
- Developing Standard operating procedures for sanitation
- Development of an onsite sanitation business model
- A mechanical de-sludging unit was purchased.

### Activities Carried Out

- FSM Business Plan developed.
- Sessions were held between NAWASSCO and other WASH stakeholders within the county for developing toilet designs. They are now seeking approval from the Public Health Department under the Ministry of Health for these to be approved.



- The finished design of the approved toilet will be implemented in Nakuru.
- Sanitation Guidelines have been developed. The project is now developing SOPS for onsite sanitation together with the Department of Public Health. First, VEI offered support to developing the SOPs and then developing them as instructions to other utilities.
- The KOBO Collect app is used to see which toilets have been emptied and when they can be emptied again.
- In terms of its efficiency, some toilets were earlier mapped but not yet uploaded.

## Results

WASREB approves utility budgets, and now, in the allocations, they have allowed an allocation to on-site sanitation. A KPI on sanitation was still being negotiated by the time of compiling this WOP Case, and approval was only weeks away.

There is no KPI for sanitation yet; however, WASREB, after a policy review, will require utilities to have a sanitation levy. NAWASSCO is working to be the 1st Company to have a sanitation levy and to be allocated a budget for on-site sanitation.

There is a need to pay more attention to NARUWASCO in Faecal Sludge Management. In general, according to the partners, only a few water supply areas could benefit from the FSM support as its relevance is limited in areas with only unlined pits.

## Improvement Track 2: Non-Revenue Water Management

VEI applied different approaches for each of the utilities, i.e., Nakuru Urban (NAWASSCO), Nakuru Rural (NARUWASCO), and Naivasha Water (NAIVAWASCO).

### Activities Carried Out

#### Nakuru Urban (NAKUWASCO)

- Four DMAs in the Eastern Zone were supported.
- The pipe network for the Eastern Zone was rehabilitated.
- 12.7 km of the network were replaced.
- Bulk and consumer meters were calibrated /tested to check their accuracy.
- Leak detection in Eastern Zone to detect invisible leaks.

- Minimum night flow measurement (midnight – 5 am) to quantify physical and commercial water loss ratio. To identify where to put more resources.
- Consumer meters were serviced.
- Meters were relocated to within a maximum of 2 meters within the customer's boundary. This helped to avoid bypass issues and to address leaks on the customer service lines.
- Meters that were placed wrongly were repositioned, e.g., some meters were installed vertically, resulting in meter inaccuracies. These were reinstalled to a horizontal position.
- Training in NRW Management was done. Discussions were held on the causes of NRW and how they could be handled.

## Nakuru Rural (NARUWASCO)

- The pipe network for Chepseon DMA was rehabilitated.
- 10.3 km of network were replaced.
- 625 consumer meters were bought for unmetered connections.
- Consumer meters were calibrated /tested meters to check accuracy.
- Relocation of consumer meters, as was the case in Nakuru urban.
- Minimum night flow measurement (midnight – 5 am).
- 3-rapid filters at Turasha treatment works were repaired.
- A Customer Identification Survey (CIS) was done. Each connection was visited, and recordings of the findings were done, i.e., leakage and location of meters.
- Analysis of CIA results found that 94% of the meters found faulty had accumulated silt from the treatment plant. The repair of the rapid filters was thus a solution to address the cause of the meter getting stuck. Other anomalies like leakages and illegal connections were addressed.
- Three training sessions were carried out in NRW Management, Hydraulic modelling, and Data analysis related to NRW.

NARUWASCO is now a municipality after Nakuru was given city status. It has had a progressive decline in NRW. The key benefit of the creation of DMAs and door-to-door surveys is that the utility is now able to visualise the NRW trends.

Under the WOP, the team was able to identify a lot of their weaknesses. The key finding was that most of the losses were from commercial leakages due to undeclared connections. The first phase of the WWX programme was on technical losses, and they realised that not much had been achieved. The second phase of WWX will, therefore, put focus on the commercial losses, identifying if connections are metered or unmetered. This will be given attention through routine monitoring, flow measurements, and pressure management.

## Results

According to NARUWASCO, the strength of the WOP is that there has been a lot of learning. The learning is seen from the continued growth of interest of the staff. From the learning, the general company performance has improved. The data acquired on their systems has been a strong foundation for the gains that NARUWASCO is reaping from the partnership. The customers are growing. The complaints are going down, and the goodwill of the community is on the rise.

## Naivasha (NAIVAWASCO)

- Two DMAs (Lake View and Central Business District -CBD) were supported.
- The pipe network was rehabilitated for a portion of the CBD.
- 3.2 km of the network were replaced.
- One million consumer meters were bought.
- Meters calibrated /tested to check the accuracy of bulk and consumer meters.
- Leak detection in Lake View DMA to detect invisible leaks, a mobile application for reporting on leakage, was installed.
- Minimum night flow measurement (midnight – 5 am)
- Three training sessions were carried out in NRW Management, Hydraulic modelling, and Data analysis related to NRW.

## Results

In NAIVAWASCO, 3 km of the water network was replaced in the CBD. Asbestos pipes were replaced with HDPE, and through this effort, the NRW in the CBD was reduced from 40% to 11%.

## Improvement Track 3: Pro-Poor

The objective was upscaling the Nakuru County Sanitation programme. Initially, the programme was about the construction of toilets, but the WWX embraced the whole sanitation value chain.

## Areas of Improvement

After identifying the most prone areas where service is most needed, subsidies were provided to plot owners to redo their toilets and convert them to emptiable toilets. Partners or donors were approached to pay for toilet construction in poor areas. The programme then moved from offering subsidies to sanitation

marketing. This involved building the capacity of Community Health Volunteers (CHVs) to promote the approach. Instead of giving subsidies in the form of money for the plot owners to be motivated to invest more in toilet improvement, the team adopted the approach of sanitation marketing where the artisans are trained on constructing different sanitation options as per the standards and the CHV's are tasked to identify toilets that are in a bad state (i.e., not enough to accommodate the residents and toilets that were not constructed as per the standards). Training and sensitization forums raised public awareness of the dangers of poor sanitation and public health enforcement for adopting toilets that are up to standard.

Landlords plot owners were not given subsidies to build the toilet but were tasked to fund their own toilets either through their own savings, merry-go-rounds, or loans. Artisans who did the construction of the toilets were trained.

Knowledge was passed on to all by engaging people and engaging financial institutions. This was through the FINISHINK program that supported sanitation marketing. FINISH (Financial Inclusion Improves Sanitation and Health) Modial (FM) is a programme that aims at sanitation for all through an integrated model that addresses both the demand and supply sides of the sanitation challenge. For water supply, the new approach encouraged utilities to establish a revolving fund that can allow the poor to borrow and get connected and then pay back in small instalments. This means that, unlike the situation where you could only connect to the network if you have money, with the revolving fund, anyone can apply to get connected and pay back slowly. As a result, the customer base has increased.

## How the Revolving Fund Works

When a customer pays the bill, 50% of what he pays is taken to pay for the connection, and the balance goes to pay for the bill. This happens with every payment made. Disconnection is the last option. The utility encourages people to pay whatever they have, so by the end of the month, customers don't have a lot to clear. The approach now is 'know the customers, get in touch with the customers,' who benefit from the revolving fund depending on where the network is being done, i.e., availability of infrastructure. Challenges have been experienced with the quality of materials and sometimes the quality of workmanship.

## Activities Carried Out

WWX programme has been very active in Community Engagement and Awareness.

The activities involved:

- Support for establishing pro-poor units
- Establishing strategies for payment
- Identifying needs and prioritizing

- Resource mobilization for investment support, training on proposal development, and linking utilities to possible funders.
- Ensuring utilities have a budget for pro-poor. Advocating for these so utilities continue the pro-poor interventions.
- Social connection programmes. These have been approved by the board to allow these people to pay in instalments.

## Results

- A KPI for Pro-Poor will be agreed nationwide.
- The programme has supported 18 other utilities in Kenya to establish pro-poor sections/ units and committees to spearhead the pro-poor agenda within the utilities.
- Under the PEWAK program, the VEI TA supported the development of the pro-poor key performance indicators that were adopted by WASPA benchmarking methodology and WASREB for inclusion of Pro-Poor Performance Indicators.
- The WWX Pro-poor lead was appointed as the chairperson for the pro-poor task ground in the WASPA benchmarking process.
- NAWASSCO has been the leading water utility in pro-poor/ serving the marginalized as per the regulator impact report.

## Improvement Track 4: GIS

GIS was used to map all groundwater available in Nakuru. To study the dynamics of water in Nakuru, a hydrological database that integrated all the potential water sources was created, showing rainfall data, abstraction data, and water levels. Efforts were also invested in looking for alternative water sources within Nakuru.

### Areas of Improvement

GIS Capacity was built for planning water and wastewater assets and in NRW management. VEI supported mapping all the infrastructure; pipes, valves, and everything was mapped. NARUWASCO did not have a GIS expert at the time because the former GIS staff was promoted to regional manager. However, by the time of documenting this case, they had got an intern to support these activities. The project created a water infrastructure database and a sanitation database.

## Activities Carried Out

- Training of GIS Experts / Staff training on GIS for water and wastewater management – sizing of pipes, mapping of infrastructure.
- Modules were added to the GIS database covering Planning, Asset Management, NRW, and New connections. They were locating new connections and helping with proper sizing and identifying locations.
- Using QGIS, a condition assessment was done.
- KOBO Collect, a mobile application, was installed to collect information with pictures for upload.
- VEI technical staff supported the project with maps reports, creating evidence maps for proposals and reports.
- Modelling of the system.
- Collaborated on procedures for building a hydraulic model.

## Improvement Track 5: Water Safety Planning

The Water Safety Plan is an essential document that develops a step-by-step approach aiming at abating the potential risks of waterborne infectious diseases on public health and specifically at identifying the potential presence of microbial contaminants in drinking water and the general drinking water supply system. NAWASSCO and NAIVAWASCO drafted Water Safety Plans (WSPs).

Through a Short-Terms Expert (RIVM), the project supported the utilities Water Safety Plan teams through training, developing, and reviewing the plans. The STEs build capacity on water safety planning through knowledge on the importance of developing and implementing a Climate Resilient (CR) WSP as well as stimulation of cooperation between the Water Service Providers to tackle the common hazards and hazardous events in Nakuru County that affect their water supply services. Besides the Short-Term Expert technical support, the utilities have participated in training to assist them in their development of the plans.

## Improvement Track 6: Climate Resilience (Sponge City)

The objective of this track was to create a 'Sponge City.' A 'Sponge City' is one built in a manner that rainwater can be recharged to underground water reservoirs. Instead of the water runoff to oceans or seas, the water is directed to recharge underground aquifers.

## Areas of Improvement

VEI sought a commitment from the City Manager to work towards having a Sponge City. This required regulations, and VEI was able to influence the County Government to consider an enabling environment for this to work. A Climate Resilience Plan (CRP) was prepared for Nakuru County, running until 2050.

## Activities Carried Out

A Water Resources Potential Assessment Study was led: this showed that even without the Itare Dam, Nakuru had enough water potential, provided sources were managed carefully. A Water Potential Map was created, and both were widely disseminated. Through this, inventory mapping for community boreholes to know all water sources in Nakuru for planning purposes to answer the question: will the water still be sustainably available? All are supported with relevant maps and reports.

Three Stakeholder managers were recruited, 1 from each of the utilities. These managers, as representatives of the utilities, with the support of a Short-Term Expert and Hydrologist from the Water Resources Authority, came together and developed the first draft of the Climate Resilient Water Supply Plan (CRWSP) 2050. Numerous “write shop” meetings were held to continuously review, write, and enrich the CRWSP 2050 document. It is a County-wide plan, and a project Steering Committee lobbied at the County Government of Nakuru to establish and gazette a Steering Committee of Nakuru County Climate Resilient Water Management (CREWM). This was gazetted, and field visits to the Sponge Towns of Kitui and Kajiado were organised.

All the above required an intense level of stakeholder engagement and numerous discussions prior to endorsement.

## Results

The CRWSP 2050 has been adopted by the County Government as a blueprint plan and the basis for the Master Plan for the improvement of sanitation, sewage, and wastewater treatment. In general, benefits under Climate resilience are a level higher and are not felt so much by the utility unless given closer attention. The Climate Resilience Plan is in place and will be monitored and implemented over the coming years.

## Improvement Track 7: Energy Reduction

This activity was not part of the original WWX proposal and was added at the request of the 3 MDs, as their electricity costs were a substantial part of their operation and maintenance costs. Energy Audits were carried out for all the 3 utilities by an accredited Kenyan firm (subsidised by DANIDA and 50% funded by WWX).

## Areas of Improvement: Using GIS Hydraulic Modelling to Know the Performance of the Pumps

The team carried out hydraulic modelling of the pumps to get the pumps that consume the most and advise on energy reduction. Proposals for improvement were made, and investments at NAWASSCO were to be financed through KPWF/WFF. Proposals were made for more efficient pumps, solar panels, and accompanying measures, and funding will be sought from other sources.

## Improvement Track 8: ERP System

### ERP Background

NAWASSCO, NAIWAWASCO, and NARUWASCO jointly and in conjunction with the WaterWorX Programme procured an integrated Enterprise Resource Planning (ERP) system for the 3 water utilities. The adoption of the ERP system aimed to make the utilities more efficient and effective in their operations as well as improve, strengthen, and streamline their services in accordance with their strategic plans and service charters.

The water utilities realized the importance of interconnectedness between ICT and business processes, and whereas they had adopted different approaches and methodologies for the computerisation of operations, they had not reached the desired end, and silo systems cropped up. The absence of a cohesive and long-term approach led to a proliferation of many issues and challenges. There were several shortcomings, for instance, tedious data reconciliation processes, difficulty in getting timely and accurate information, silo-based non-integrated systems, redundant processes at various levels, and lack of ownership and transparency.

Prior to the implementation of the Enterprise Resource Planning by the 3 water utilities in Nakuru, namely NAWASSCO, NARUWASCO, and NAIWAWASCO, the Water Services Regulatory Board (WASREB) had developed basic software requirements for a model billing system for the utilities to adopt. From a regulatory perspective, the 3 utilities intended to overhaul their entire business processes to become more efficient. With VEI technical support, the utilities expressed their ICT requirements. Based on the requirements that were beyond billing, the 3 utilities opted to go for an ERP system. The system would address more than only the billing issues and ensure that all work processes are streamlined and integrated.

The budget for such a system was initially set at €250,000, and as the utilities expressed their requirements, the required amount rose to €750,000. As the figure tripled, it was no longer possible for the WWX programme to directly fund the ERP system. The WWX programme offered technical support to the development of the ERP system requirements, and the ERP system was funded as part of the utilities' co-contribution to the project.



## Activities Carried Out

VEI, in consultation with the utilities, jointly supported the development of the technical specifications for the ERP system, which took a period of 6 months. The utilities identified seven modules and sub-modules, which translated into technical specifications:

- Technical Management Module
- Finance and Accounting Module
- Human Resource and Administrative Module
- Procurement Management Module
- Billing Management Module
- Customer Relationship Management Module
- Project Management Module

The sub-modules are as follow:

- Asset Management Sub-Module
- Fleet Management Sub-Module
- Requisition Management Sub-Module
- Stores Management Sub-Module

A total of 1,167 technical requirements were identified and adopted. Thereafter, the procurement process was initiated, starting with the advertisement of the Request for Proposal for Supply, Installation, Configuration, Customization, Testing, Commissioning, and Maintenance of an Enterprise Resource Planning. A 5-step evaluation of bids-Technical and Financial- was developed and implemented. On 19th August 2019, NAWASSCO, NARUWASCO, and NAIVAWASCO jointly entered a contract on a 50%, 30%, and 20% contribution, respectively, for procurement of the system and it is currently under implementation. To date, all three utilities have been implemented and gone live with all the modules.

To support implementation, manuals were created that changed workflows, giving more powers to zone managers with the HQ limited to administration. Implementation of the ERP also resulted in a redeployment of staff, especially billing officers, who had to be re-assigned. The ERP systems were fully implemented in all departments.

Two Short Term Experts from VEI provided technical backstopping in the field and remotely. The experts supported the review of the implementation of the ERP framework and identified gaps that needed attention,

drastically improving utilities Service Level Agreement with the ERP supplier so the utilities harness better services and reduce general liabilities, reviewed utilities ICT policies, and provided feedback, especially on cyber-security.

## Benefits of the ERP System

The ERP system was to guarantee improved efficiency and effectiveness of data management systems at the water utilities, to overcome the existing shortcomings, and to enhance the utilities' ability to provide services.

- It increased revenue as it decreased commercial losses.
- Billing is now done in real-time. The supplier of the software provided phone-based smart metering solutions in which meter readers input meter readings on a meter reading application, which has extra features such as geo-tagging a picture to ensure fewer complaints from customers.
- The three utilities have gone cashless, meaning customers have been provided with alternative payment solutions such as MPESA. Thus, the staff is now optimised to support other company operations.
- Reading meters and billing can now be done in the same month, which was previously a big task. Meter reading efficiency increased, and there is now less manipulation of data, meaning that efficiency levels have risen.
- There is stronger budget control.
- Uniform data can be acquired in real-time.
- The ERP system offers freedom for self-service, e.g., when applying for leave days.
- All the ERP modules are fully integrated, meaning that they communicate with each other; for example, if a staff needs to go on leave, he or she logs into the self-care HR Module, which is also linked to the finance module, which is linked to banks that releases the benefits to the staff in real-time.
- It reduced paperwork.
- It helped to manage stock as the system alerts when things are going out of stock.
- The system came in handy during the COVID-19 pandemic and made work a lot easier.
- Other utilities are coming to benchmark with the Nakuru ERP system.

## New ICT Technologies

Through emerging technologies in response to the pandemic, the utilities are continuously improving their processes and customer experience. For instance, NAWASSCO implemented a management performance dashboard to track the performance of the utility staff. As a result of the pandemic, NARUWASCO acquired the Maji app, with the ability for the customer to get their statement, apply for water, pay bills, launch complaints

or comments, report water leaks, burst or illegal activities, and identify staff of the company at the palm of their hands.

In addition, VEI, jointly with the utilities, supported 2 trainings. The first training covered cybersecurity, IT policy Development, and ICT Guidelines. The second training was specifically for NARUWASCO Board and Management team to underscore the importance of the ICT Department and financing the department considering new technological advances and technological vulnerabilities. As a result, the MDs agreed to increase the budget for cyber security.

An ICT policy and cyber policy were created.

# Progress Towards Impact and Effectiveness of The Project

## Project Outputs

The project achieved several of its intended outputs in most areas. However, despite the capacity efforts, there is still a gap in utilizing the GIS information and in bringing all the information together for reporting purposes. 'Specific deliverables were achieved however, there is still a need to monitor the impact of these interventions as it is not enough to just do trainings' VEI Assistant Project Manager, CRWM and ERP.

## Sustainability of Change Trend

According to the beneficiary partners, the technologies put in place are geared towards ensuring value for money for infrastructure replacement and investment (for example, the replacement of asbestos pipes with HDPE pipes). In general, the objective is to recover investment in a short period of time, so projects with a high return on investment are sought out. They target projects that will benefit many and yet with a lower budget. Also, training, for example, in NRW, is to ensure capacity for replication. The growing benefit, therefore, is conserved also for future generations.

There is concern over the GIZ database. The NAWASSCO GIS specialist and the VEI-endorsed expert work on different GIS databases. The utility is contented with the database they have, and they have discussions when something arises. What they would prefer is improvements on what they are doing rather than adopting another database.

# Project Evaluation

## Impact in Terms of Sector Targets

As a result of this partnership, the Water Sector Regulatory Authority (WASREB), which was not keen on pro-poor services, has developed an interest in the delivery of these services. The project supported WASREB to develop pro-poor policy guidelines, and these have now been adopted as nationwide guidelines on pro-poor.

The need to jointly procure an ERP system brought the three utilities together: NAWASSCO, NARUWASCO AND NAIWAWASCO, working together on an activity that under normal circumstances would never have happened.

## Effectiveness

The partners felt there was a need for experts assisting the utility beyond the 1-week training that is provided by the short-term experts. One of the partners expressed a need for these long-term experts (either international or local) to accompany the utility throughout. This WOP mobilized several long-term experts; however, most of their time was allocated to NAWASSCO, hence the felt gap in support.

## Efficiency

By design, this project had several sub-projects. As a result, a lot was happening on different fronts, and for increased efficiency, a suggestion was made to consider combining the small interventions into a specific intervention that touches a significant portion of the people who desire this support. Focusing on NRW, the utilities will be able to implement bigger changes. The specific request is to explore merging of some of the projects into one major project for a bigger impact.

Under the circumstances (COVID-19 pandemic), the team worked efficiently. Also, the support from Kenyan experts is an approach that was appreciated and should be encouraged for all utilities. The time between conceptualisation, proposal preparation, and approval of funds could be shortened.

# Success Factors

## Critical Success Factors Were

The project was designed with a mutual understanding. There was a high level of openness and transparency, which was a significant aspect of the success of the partnership. The transparency of budgets was also very critical for success. The effort of helping the utility to understand the nature of the project was a determinant, as well as integrating VEI staff with the utility staff.

The success factors were good collaboration amongst the stakeholders, and openness of the stakeholders, which was exhibited through openly discussing budgets and sharing of planned activities with all. Also, the monthly meetings with the Managing Directors of the three utilities were a key success factor as this meant that the top leadership was always in the know of what was happening in the WOP, and they endorsed all planned activities through these monthly meetings. Overall, the level of communication in the partnership was a critical factor for the success.

Initially, when VEI was implementing the project, it was referred to as the VEI project. This later changed because of the VEI team being more deliberate about closer engagement with the utility. The close engagement with the utilities was a strength of the partnership.

The utilities were given leeway to do procurement, whereas VEI paid the suppliers directly. This approach created more ownership and, thus, faster achievement of results.

Another strength reported was the changing of livelihoods, especially for the very poor in society. 'When someone listens to your challenges, supports you, and you see things change for the better, that's a strength,' Felix Mwarema, TM NAIVAWASCO.

# Weakness of This Partnership

To a large extent decision-making on priorities for the use of funds was left to the mentee utilities. The approach was, 'This is your money decide how to use it.' Some felt that this approach results in decisions that may not always translate into improvement of service delivery. It is a delicate balance between what would have been the best options for the utilities and how to ensure full ownership of the project.

On what could be done differently, the partners feel that the reporting requirements could have been adjusted. There are many KPIs to be reported on under the VEI programme. Also, the VEI programme has a different reporting timeline. The utilities report per financial year (July – June) while VEI reports per calendar year (Jan – Dec), and this posed a reporting challenge.

NRW management requires a significant investment, and there was often a lack of investment funds, which resulted in activities stalling. A suggestion was made to explore merging some of the projects into one major project for a bigger impact. As this project was designed, it had several sub-projects whose funds, as per this suggestion, could be combined into a specific intervention that touches a significant portion of the people who desire this support. Focusing on NRW, the utilities will be able to implement bigger changes.

Another weakness of the partnership was the short time available, given the magnitude of the actions to be led.

## Main Lessons Learned from the Partnership

### Key Lessons Learned

- According to the NRW Expert Bernard Mbatia, 'you cannot do much with NRW in one year. You need at least 5 years, and you need a different approach for each utility. It is important that you do not dictate how the utility does things, as each Organisation has its own culture, so you don't impose your way, and

- you allow the utility to contribute to the approach design. In general, you need to follow the culture of the Utility’.
- NRW is not only a technical but also a cultural behaviour problem. The problems may be either caused by the recruitment of incompetent staff who design systems poorly and place meters wrongly or by the purchase of sub-standard materials, which affects the quality of pipes. The latter is an issue of culture and ethics in the organisation. Another cause can be the lack of proper inventory management systems.
  - The lack of continuation of NRW activities after the project (due to lack of funds) affects the progress that has been achieved. To address this, utilities need a revolving fund where they re-invest the savings from NRW management for the continuation of NRW activities.
  - Water saved because of NRW management becomes available for low-income areas that were previously not served.
  - Customer Identification Survey (CIS) is a small activity that has a lot of impact. The CIS data has been key in improving the operations of the utilities and should really be the place to start for utility improvement efforts.
  - For any intervention, a CIS is a good place to start in order to identify the specific issues that need to be addressed or the lines that need to be replaced. The expert’s work then becomes mainly to guide the teams rather than to do work for them.
  - An NRW reduction program requires a lot of investment.

## Most Valuable Activities

The revolving fund, an innovation established under the project, was found to be very valuable. With the revolving fund, monies are set aside to support connection to the network by low-income households who would otherwise be unable to connect to the service even if it was close to their homes.

€6.4 million was put aside for the revolving fund; 60% was contributed by VEI, and 40% from utility gains to be realized from the NRW mitigation initiatives. The model is that gains from NRW management activities will be re-invested back into the fund to keep it running. It works best where utilities are able to offer 24-hour supply. This was done to address the NRW investment challenge.

When starting the interventions, you do a cost-benefit analysis of the gains that could be made from savings, and this is tracked to see how much the utility is making from this approach. The Nakuru MD expressed that being able to do something for low-income households made the utility more relevant to the communities and increased their visibility.



## Cross-Cutting Issues

Gender and inclusion need assessment was done for the three utilities. Guidelines for gender and inclusivity were developed. Across the country, the project promoted a Sexual Harassment policy to comply with the requirements of the new regulator, thus directly contributing to gender and inclusion in the utilities.

The Climate Resilience Plan 2050 will go a long way in directing measures towards climate adaptation and resilience not only for the water utilities but for the whole county. Through this, WOP regulations were developed, creating an enabling environment for implementing climate change adaptation measures.

The mentor was equally proud that the utility owned the pro-poor initiatives and felt that reaching the poor was part of their responsibility. This was not the case in the past, as the utilities felt that serving the poor was expensive with a very low return on investment. This perspective has now changed.

One staff member found Faecal Sludge management activities most valuable because sanitation had been left behind, and the little efforts made under the WOP had a significant impact on the utility (NAWASSCO).

## Interviewees

- Jan Spit WWX Resident Project Manager
- James N. Gachathi MD. NAWASSCO
- Margaret Kinyanjui Technical Manager (TM) NAWASSCO
- Edward Mwangi Technical Manager (TM) NARUWASCO
- Felix Mwarema Technical Manager (TM) NAIVAWASCO
- Zaituni Kanenje Technical Advisor and WWX Pro-poor Lead NAWASSCO
- Bernard Mbaita WWX Non-Revenue Water Reduction Expert
- Lawrence Basweti WWX Ass. Project Manager Climate Resilient Water Management (CRWM) and ERP
- Evans Obura WWX GIS Expert

# CASE STUDY



Water Operators' Partnerships (WOPs) are peer support relationships between two or more water or sanitation operators, carried out on a not-for-profit basis in the objective of capacity development. This is one of a series of four impact-oriented case studies conducted on WOPs in Africa. It is intended for water and sanitation service providers, governments, development banks, donors, WOPs facilitators and all who are interested in gaining a better understanding of this solidarity-based approach to helping public operators improve their capacity to sustainably deliver water and sanitation services for all.

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