Water Sanitation and Hygiene Bottleneck Analysis Workshop Turkana County

September 2021

Water Sanitation and Hygiene (WASH) Bottleneck Analysis (BAT) Workshop

Turkana County, September 2021

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The USAID Nawiri Program - named after the Swahili word "thrive" - is a five-year initiative funded by USAID Bureau of Humanitarian Assistance (BHA) with the overarching goal of sustainably reducing levels of persistent acute malnutrition in Kenya's arid and semi-arid lands (ASALs). Recognizing the need for local, context-specific, and sustainable solutions to the complex development problem of persistent acute malnutrition in Kenya's ASALs, BHA is providing multi-year support for Nawiri. It recognizes the need to address underlying causes of acute malnutrition through an integrated, multi-sectoral activity that leverages ongoing emergency and development activities, this includes sustained water, sanitation, and hygiene access.

Disclaimer

The information herein does not imply the expression of any opinion whatsoever on the part of USAID Nawiri Program but the views of the workshop participants. All photographs taken during the workshop can be accessed here .

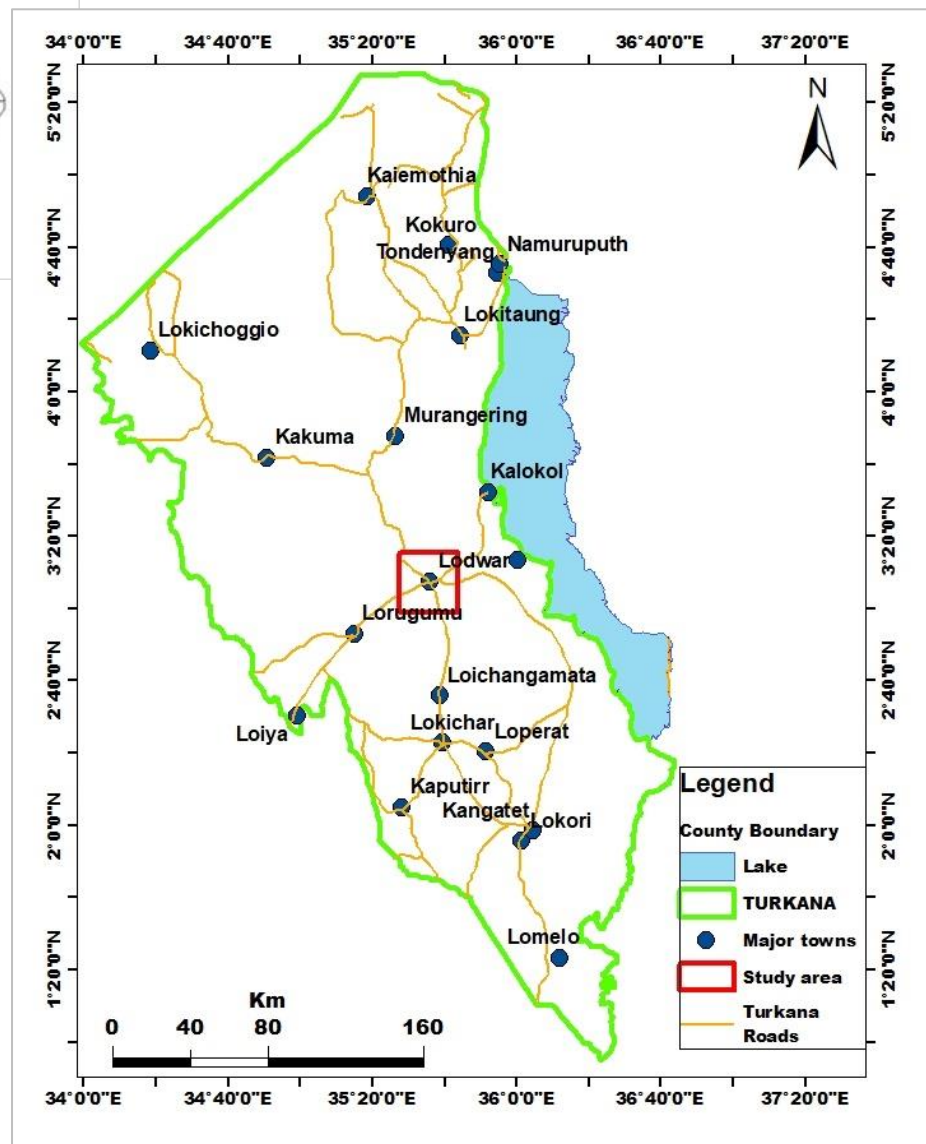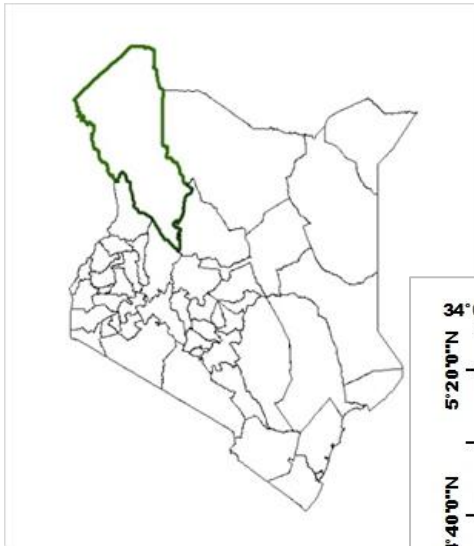In Collaboration with Turkana County Government

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ACRONYMS AND ABBREVIATIONS

ASAL	Arid and Semi-Arid Lands
BAT	Bottleneck Analysis Tool
BCC	Behavior Change and Communication
CaPEx	Capital Expenditures
CBO	Community Base Organizations
CBROP	County Budget and Review Outlook Paper
CECM	County Executive Committee Member
CIDP	County Integrated Development Plan
CHAST	Children Health and Sanitation Training
CLTS	Community Led Total Sanitation
CoK	Constitution of the Republic of Kenya, 2010
CSO	Civil Society Organization
DWQ	Drinking Water Quality
DWEMR	Department of Water, Environment and Mineral Resources
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
GDP	Gross Domestic Product
GIS	Geographic Information System
LoWASCO	Lodwar Water and Sanitation Company
HRBA	Human Rights-Based Approach
HRWS	Human Rights to Water and Sanitation
ICT	Information and Communication Technology
IDPs	Internally Displaced Persons
IGA	Income Generating Activities
ISO	International Standard Organization
IWRM	Integrated Water Resource Management
J2SR	Journey to Self-Reliance
KEWI	Kenya Water Institute
KEFRI	Kenya Forest Service Research Institute
KESSF	Kenya Environmental Sanitation and Hygiene Strategic Framework
KESHP	Kenya Environmental Sanitation and Hygiene Policy
KFS	Kenya Forestry Services
LCCA	Life Cycle Costing Approach
LIA	Low Income Areas
NWWDA	Northern Water Works Development Agency
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals

MIS	Management Information System
MOWS	Ministry of Water and Sanitation
MTP	Medium Term Plan
MUS	Multi Use Services
NEMA	National Environmental Management Authority
NGO	Non-Governmental Organization
NRWWDA	North Rift Water Works Development Agency
O&M	Operation and Maintenance
ODF	Open Defecation Free
OpEx	Operational Expenditures
PAM	Persistent Acute Malnutrition
PIP	Performance Improvement Plans
PPPs	Public-Private Partnerships
PSP	Private Sector Participation
SDGs	Sustainable Development Goals
SDM	Service Delivery Management Model
SOW	Statement of Work
SWAP	Sector Wide Approach
SWOT	Strength, Weakness, Opportunities and Threats Analysis
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WOP	Water Operators Partnerships
WRA	Water Resources Authority
WSP	Water and Sanitation Service Provider

Turkana county map

Source: http://www.ncpd.go.ke/wp-content/uploads/2016/11/Brief53-Births-Across-Counties-Proof3.pdf

Executive summary

Context

Turkana covers a larger area than Sri Lanka, accounting more than an eighth of all the land in Kenya. The county has always been dry and hot, but climate change is making it hotter and drier. Temperatures have risen by up to 3°C since 1967. Droughts are more frequent, now occurring at least every three years – and sometimes every year. In this vast county, people must travel over kilometers to find water. The mean distance travelled in 10 kilometers.

WASH systems buttress efforts to combat persistent acute malnutrition, which is stubbornly common in Turkana despite extensive work to expand nutrition. As part of Kenya's decade-long devolution process, the county is taking control over water and sanitation work. Unfortunately, Turkana doesn't have the human or financial resources to handle the task.

USAID Nawiri

USAID Nawiri is a five-year program that aims to sustainably reduce persistent acute malnutrition through multi-sectoral interventions that tackle both immediate and systemic drivers. Learning is a major component of the project, as is partnership and co-creation with government, civil society, communities, and the private sector.

As part of an evidence and gap analysis framework, USAID Nawiri conducted a participatory WASH bottleneck analysis through a county-led dialogue process. The goal was to:

1. better understand local water governance and water resource management strategies,
2. diagnose underlying drivers, systemic constraints, and gender-differentiated dimensions, looking at how they affect water insecurity, and
3. identify and prioritize sustainable and practical solutions for the county.

During the planning, at the request of county departments, the scope was expanded to include the overall urban and rural water supply, water resources management, and sanitation. USAID Nawiri and Turkana County designed and conducted the workshop, and then documented all proceedings and reports.

The county government led the process, guided by the moderators and facilitators, and reached a broad consensus on how to overcome bottlenecks.

Findings and recommendations

Based on the workshop discussions, participants drafted and costed action plans. The list of recommendations are the views of the workshop participants' contributions drawn from county relevant departments and other stakeholders.

1. Augmentation of water infrastructure and innovative water resources management is required to improved access to water under growing demand. Turkana's water access is increasing, but so is the pressure on water resource management. In fact, the pressure is already critical. As limited water goes to more people, management will become ever more important. Efficient delivery will help, but ultimately more water is needed. This requires managing pollution, protecting water sources, getting better data, using climate-smart technologies, and better regulation.

2. Performance Improvement of Water Utilities. LOWASCO ranks in the bottom 10 of Kenyan water utilities. Low water access exposes the underserved population to water-borne diseases, absenteeism in schools, malnutrition, stunting, high health costs, and reduced time for productive activities by women and youth to earn money. Conflicts among pastoralists become more common. Sub-counties experience glaring disparities in access. The rural population lags behind urban areas, while informal settlements have much lower access. Investment and capacity development are required, especially in rural areas and informal settlements. Decentralization of county government budgets will ensure investment equity and balanced development.

3. Turkana needs to build and sustain demand for sanitation According to SMART (2017), in 2018 the Open defecation levels stood at 86.1%, a drop from 96% (KNBS 2009) and as per workshop participants views, could be even lower at 70%. The sector financing is skewed against sanitation that also includes sewerage with a large share allocated to water supply and resource management than sanitation. The biggest challenge on sanitation in Turkana County that requires policy intervention is on building and sustaining demand before moving into sanitation marketing. An avenue would be linking sanitation to income generating activities for women and youth.

4. Data collection and processing is either unavailable or not integrated. This limits data availability for analysis to inform policy, especially on issues related to women, youth, and the marginalized. Turkana needs a centralized platform and working group on integrated data and information for WASH.

5. Turkana's WASH budget is Ksh.1.5 billion a year. That's a lot compared to other counties, but not enough to match the needs on the ground. The budget is not always spent, and is also hampered by delayed disbursements, procurement bottlenecks, and project delivery challenges. Capacity development on budgeting and project management could restore credibility. But government allocations to WASH are declining, and locally generated funding is not increasing. Further, financing by development partners tends towards loans over grants. Negotiations could focus more on concessionary loans with lower interest rates and longer repayment periods. A multi-stakeholder approach in planning, budgeting, and monitoring is critical to encourage

synergies in the sector. Education, health, and social protection sectors need to be involved while mainstreaming needs of women, youth, and the marginalized.

6. More kinds of financial products are needed. The WASH sector depends on tariffs and transfers for funding. Using other counties as models, increasing the use of repayable finance products can encourage development, build resilience to shocks, and contribute to meeting investment targets.

7. Turkana has not fully mainstreamed women, youth and the marginalized in policymaking. The lead facilitator had to constantly remind participants to include them in their analysis. This calls for intensive promotion around the need for WASH services for households, schools, health centers, markets, and other public places. Also needed are programs and infrastructure around hand washing and menstrual hygiene, with data sharing on beneficiaries.

8. Proper governance at all levels is the heartbeat of sustainable WASH access. USAID Nawiri must focus on good supervision and oversight; stakeholder engagement; prudent financial management; integrity and accountability; robust performance management; information and control systems; good service standards and arms-length operating for water and sanitation service providers (WSPs).

9. Adoption of service delivery management models promoted by WASREB will professionalize service provision and regulation in viable water projects in small towns, rural areas, and IDP and refugee camps. DWEMR needs to use commercial models in these areas.

10. Using performance-improving measures would make WSPs more efficient. Nakuru Water and Sanitation and Kakamega County Water and Sanitation companies have successfully used performance improvement plans. Commercial, financial, governance, and technical improvements have let WSPs improve operation. Adoption of technologies and models would give managers tools to drive performance improvements. This can include county government, WSPs and WASPA. USAID Nawiri should encourage consumer-centric operations in the new water utilities.

11. Civil society must join forces with strategic partners to coordinate their lobbying and advocacy goals. USAID Nawiri should embed community interest into policies and practice. This can empower civic groups to engage decision-makers with sound arguments and a solid evidence base. It can also empower CSOs to have a greater voice as advocates, and to effectively serve the interests of the people they represent.

1. Turkana county WASH sector at a glance

Physiography and administration

Turkana is the second largest of Kenya's 47 counties, covering about 71,600 sq km – an area larger than Sri Lanka. Turkana accounts for 13.5% of Kenya's land. It borders Uganda to the west, South Sudan to the north, and Ethiopia to the northeast. Internally, it borders West Pokot and Baringo counties to the south, Samburu County to the southeast, and Marsabit County to the east.

Turkana varies between semi-arid and arid landscapes consisting of low-lying plains and isolated hills and mountain ranges (Opiyo et al., 2015). The hot, dry climate has temperatures ranging between 20ºC and 41ºC, with a mean of 30.5ºC. Rainfall is bimodal and highly variable. Long rains occur between April and July, and short rains between October and November. Annual rainfall is just 52-480 mm, with a mean of 200 mm (Turkana County Investment Plan, 2016-2020). Rain patterns are erratic and unreliable. Rain usually comes in brief, violent storms that cause flash floods. The driest periods (akamu) are in January, February, and September. The county is highly prone to drought, with 80% of the county considered arid or very arid.

The county is divided into seven sub-counties, 30 wards and 156 sub-locations (see Map). The county intends to establish county villages based on the existing sub-locations.

Status of devolution in Turkana WASH sector

Turkana's water sector remains in transition following the devolution reforms as they have assumed responsibility for water resources management, water service delivery, sanitation, and hygiene. Turkana's success depends on how it develops and manages resilient systems that are responsive and accountable to public needs. So far, Turkana doesn't have capacity to do that.

Water resources management

Water catchments are places where the surface of the earth guides rainwater runoff into one area. Turkana has nine major watersheds identified in its Food Security Master Plan. The smallest is 543 sq km, with a potential runoff of 27 cubic Mm, while the largest is 14,137 sq km with a potential runoff of 1,465 cubic Mm. The two main perennial rivers are the Kerio and Turkwel (Figure 1), whose flow is influenced by rainfall in the catchments. Ephemeral streams called laggas also feed into the rivers. A dam on the upper Turkwel River releases a about 300 cubic Mm a year.

The county's main water sources are boreholes, piped water, and river water. Turkana also has springs, rock catchments and wells. In 2018, there were 1,267 boreholes, 531 shallow wells, 129 water pans, 35 unprotected springs, 10 protected springs and 6,819 roof catchments. Some 66,000 households had clean water, but only about 12,100 had access to piped water.
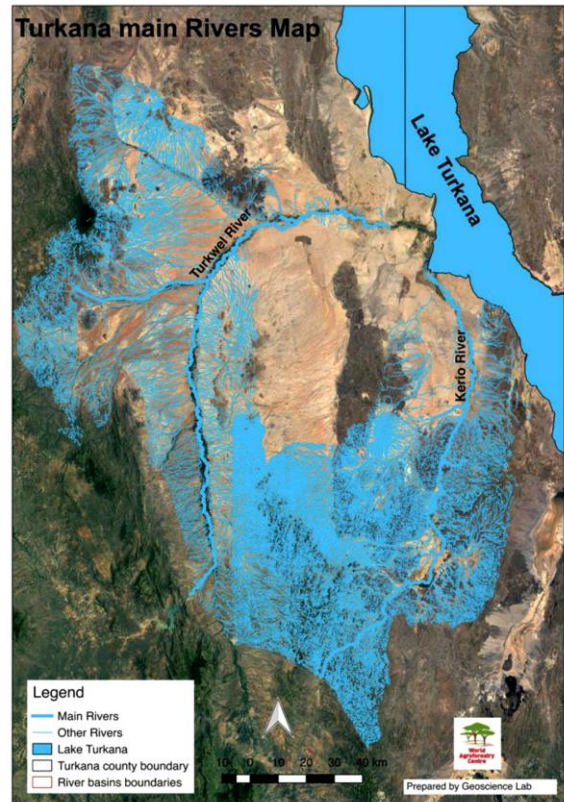
Turkana's surface water potential has not been fully exploited. The county has large pans with capacity of 50,000-100,000 cubic meters. Large dams have been proposed for the pastoral community. Groundwater is found in sand beds along the seasonal rivers, and both shallow aquifers (less than 100 meters deep) and deep-water aquifers (up to 600 meters deep) also exist. Sand dams and sub-surface dams could be developed across dry riverbeds. Water stored in sand dams becomes available for household use and light irrigation for growing vegetables. That could help improve household nutrition and generate incomes. Simple technologies like treadle pumps can extract water from shallow wells.

Groundwater also comes from boreholes that run up to 98 meters deep, depending on the rocks, and can yield up 41.7 cubic meters per hour. Where high yielding boreholes are struck, the county intends to reticulate the water closer to households, thereby reducing distance to and waiting time at water points. Groundwater accessibility from shallow wells is restricted to riverine areas and areas where there are settlements.

Map of the Turkana Water Sources. Source: ICRAF, 2018

The water in sedimentary rocks has a high pH (8.0), a relatively high content of TDS (686 mg/l) and a high content of calcium and sodium. Boreholes in basement system rocks are mostly alkaline with an average pH of 8.1, with a range of 7.0-8.6. This had hampered the exploitation of groundwater and led to a need for desalination.

Shallow river aquifers often yield very high-quality groundwater due to its rapid recharge by chemically good surface water and its short retention time within the aquifer. Recently discovered deep-water aquifers of Lodwar (Napuu) and Lotikipi will require desalination. The county has only one registered water company in Lodwar town, the Lodwar Water and Sanitation Co. (LOWASCO). Other areas get water from boreholes and shallow wells managed by Water User Associations. Harvesting of surface runoff is mainly through low-volume water pans.

For the goal of reducing persistent acute malnutrition, sustainable water and land management are strongly linked. The key is to harness available water at every stage of the water cycle. When rainfall is

captured through infiltration to store water in the soil and recharge groundwater, this is considered effective rainfall. Sustainable land management practices (like ensuring vegetative cover or enhancing soil organic matter) ensure rainfall infiltration. Water storage options can be above ground, surface or underground. As much as possible, reservoirs should be closed to reduce evaporation, algae growth, and mosquito breeding.

Overall, workshop participants noted improvement in environmental methods such as catchment conservation through Water Resource Users Associations (WRUAs). This includes tree planting to improve catchment conservation. Exploration and data collection on boreholes is ongoing.

Urban and rural water services provision and management

Despite significant investments, WASREB and JMP reports show low levels of service. Some institutional arrangements for WASH service delivery need revision to account for devolution. LOWASCO's water coverage was 56 percent in 2019/2020, according to WASREB – down from 59 percent the year before. Water access outside of LOWASCO's service area is not measured.

LOWASCO performance in 2020/2021

WSP	Total Population in Service Area	Total Population Served	Total no. of connections (active+inactive)	Total No. Active Connections	No. of Towns Served	Turnover (KSh.million	Total Water Produced inm3(000)	Domestic+Kiosks billed volume in m3(000)	Total billed volume in m3(000)	Non-Revenue Water (%)	Production per capita (l/c/d)	Consumption per capita (l/c/d)	Total no. of staff	Validity of Tariff
LOWASCO	71,970	40,504	9,288	8,027	2	-	2,211	331	1,068	52	150	22	74	Expired RTA

Source: WASREB Impact Report 13, 2021

Other small community-managed water projects have helped to slightly improve Turkana's access rates. Functionality rates outside of areas covered by LOWASCO are unknown but considered low as water point mapping peaks up. This is attributed to low success rates in rural water projects.

Despite all this, the sub-sector has made gains. The mean distance to the nearest water source is down to 10 km (from 12 km in 2013/14), although the target is 500 meters. Borehole mapping began more than a year ago and is ongoing. Through WUAs, communities have embraced good management. The sector is developing a WASH master plan. Staff levels are up, partly due to better recruitment. The water department engages with students on internships. The county has scaled-up operation and maintenance of the boreholes at the sub-county level. A team is on standby to respond to breakdowns.

Sanitation

Latrine access and use is improving. Open defecation stands at 86.1 percent (SMART, 2017), a drop from 96 percent (KNBS 2009). Workshop participants estimated it at 70 percent. Access to pit latrines and safe sanitation remains a key issue. The county, with partners, launched a Community-Led Total Sanitation campaign, which has seen several villages declared Open Defecation Free (ODF). The sanitation sub-sector group said the CLTS strategy focuses on behavior change by investing in community mobilization instead of in hardware. That shifts the focus from toilet construction for households to the creation of villages free of open defecation. The workshop urged support for this strategy, with pro-poor policies in place. Fast-track improvement are also needed for sanitation in households, institutions, and new residential areas.

The workshop noted the new WASH Hub where sanitation data is captured online, showing the ODF status for villages. Of Turkana's 1,959 villages, 527 are ODF. Diarrheal diseases are decreasing. Communities are investing in sanitation services to build their own toilets. The Community Health Services Act enacted in 2018 supports sanitation services.

Solid and liquid waste management

The county only collects 0.2 percent of community waste. This contributes to water, soil, and air pollution and poses a health threat to communities. Turkana urgently needs better waste management to keep up with its rapid population growth and growing towns. The Department of Lands, Energy, Housing and Urban Areas Management has designated solid waste disposal sites and garbage collection has improved. But waste disposal remains weak. The county does not yet have an elaborate liquid waste management system. In Lodwar town, a solid waste dumping site has been designated. This has not happened in other emerging satellite towns. Through the Department of Water Services, Turkana is designing and constructing sewerage systems in towns, starting with Lodwar.

Climate change management

Turkana County struggles to maintain its water ecosystems with pro-poor approaches that factor in the risks of climate change. Air temperatures in Turkana increased by up to 3°C since 1967 (Human Rights Watch, 2015). Hotter weather causes more evaporation, which leaves less water for people, animals, and plants. The long rainy season is shorter and drier, and the short rainy season is longer and wetter, affecting way pasture grows. Average annual precipitation is 250 mm. Turkana also suffers land degradation from overgrazing and deforestation to make coal. Droughts, which once occurred every 5-10 years, now happen every 1-3 years. That leaves families with no time to recover. Climate change is also linked to floods, famine, loss of livestock, and increased vector-borne diseases.

Environmental hotspots

According to the county, areas likely to suffer from intensive human activities are classified as environmental hotspots. These areas include the natural resources around refugee camps and settlements in Turkana West. Massive collection of firewood leads to loss of vegetation, increased soil erosion, and sandstorms, while waste accumulates rapidly. The oil fields in Turkana South and East have seen chemical pollution hazardous to humans and livestock. Hotspots also exist on the Turkwel and Kerio riverbanks, as settlements grow, and land is used for farming. Uncontrolled sand harvesting has caused severe environmental degradation that's changed the flow of rivers and caused them to lose water (Turkana County Government, 2015).

2. Workshop findings

Methodology

Sustainable Development Goal 6 calls for access to water and sanitation for all. In Turkana, that means building infrastructure and systems that work over the long term and at scale. Good governance within an accountable framework ensures efficient and equitable services. A favorable enabling environment will empower WASH actors to work together efficiently.

The WASH Bottleneck Analysis Tool (WASH BAT) can realize this. The tool enables the formulation of costed and prioritized plans to remove bottlenecks that hinder progress. Its step-by-step methodology collaboratively identifies problems and proposes solutions.

A three-day workshop facilitated discussion and set objectives and roles for participants. The workshop methodology was democratic and high participatory – providing a setting to deliberate on action strategies that can connect to policy and legislation making.

Workshop objectives, outputs and research questions

The bottleneck analysis aimed to better understand local water governance and resource management. The analysis looked at underlying drivers and systemic constraints/barriers, including gender-differentiated dimensions, and how they affect water insecurity. Ultimately, the workshop identified and prioritized sustainable and practical solutions.

During co-creation, with consensus from the Turkana Water and Sanitation Departments, the analysis and the workshop participants were divided into groups that looked at the overall urban and rural water supply sector, water resources management, and sanitation.

1. WATER RESOURCES MANAGEMENT	2. WATER SUPPLY SERVICES	3. SANITATION
Urban and Rural	Urban and Rural	Urban and Rural
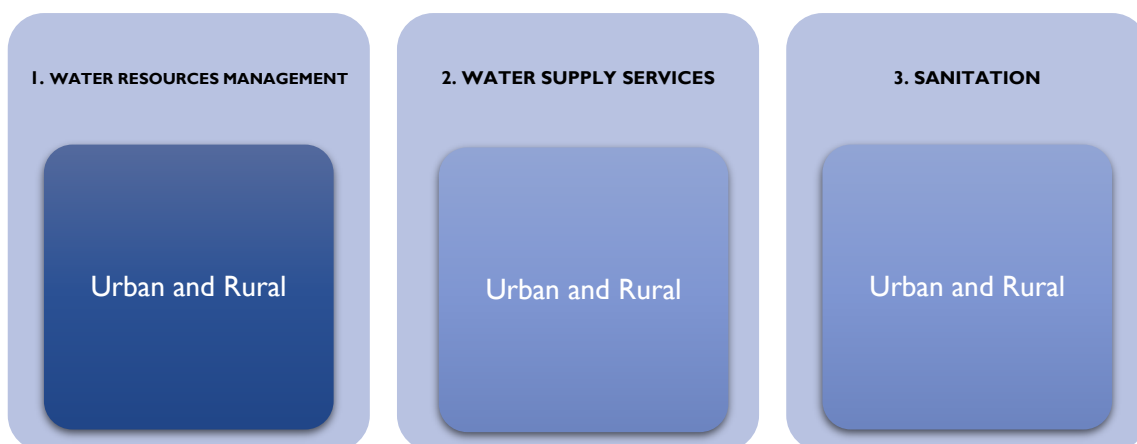
Below are the agreed-upon workshop objectives and outputs, based on the concepts of a county-led approach to water governance, the human right to water and sanitation, and SDG 6.

OBJECTIVES

- Identify the building blocks of the Turkana County WASH enabling environment
- Assess the existing accountability relations between the different actors of the Turkana County WASH value chain
- Identify bottlenecks in the Turkana County WASH sector that restrict progress and diagnose drivers that can support transformation
- Estimate resource requirements and costs of bottlenecks removal for FY 2021-2026 and;
- Propose sequenced activities for the removal of bottlenecks through a coherent action plan - 2021-2026

OUTPUTS

- Indicators, information and data collection sources are clearly identified
- Key challenges, opportunities and priority solutions identified for achieving County-wide access to WASH services for all
- Policy recommendations and priority actions identified for 2021-2026
- A draft corrective costed action plan for addressing the challenges identified for 2021-2026
- Synthesized report containing recommendations from each group work
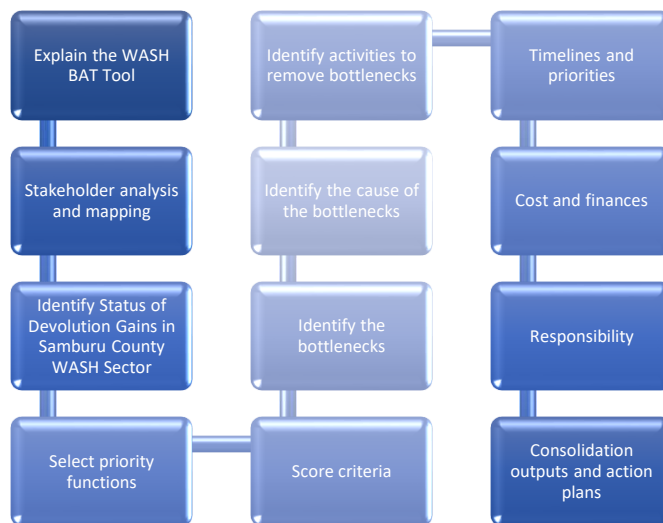- Endorsement of the findings by the County Government and sector partners and incorporation in work plans and budgeting processes

The workshop was followed by a feedback and debriefing session. Documents recording the WASH BAT process were finalized, with lessons learned and the specific challenges for each sub-sector. The steps are shown below:

Explain the WASH BAT Tool	Identify activities to remove bottlenecks	Timelines and priorities
Stakeholder analysis and mapping	Identify the cause of the bottlenecks	Cost and finances
Identify Status of Devolution Gains in Samburu County WASH Sector	Identify the bottlenecks	Responsibility
Select priority functions	Score criteria	Consolidation outputs and action plans

This study combined both quantitative and qualitative approaches, including a comprehensive desk review of the full list of WASH strategies, laws, and policies in the county. The analysis was linked to previously developed processes such as the sector wide approach, interrogating policy and strategy, institutional arrangements, financing and budgeting, planning, M&E, and learning and capacity development. The UN's Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) approaches were used so that sector improvements proposed in the WASH BAT were in line with the same systematic approach.

Consequently, the workshop findings were strengthened by some questions contextualized to Turkana County WASH sector context and as per WASH BAT Building Blocks Criteria on the Enabling Environment Structure as illustrated below in each of the three sub-sectors as provided in the table that follows.

The Enabling Environment Structure, with building blocks and criteria

Source; https://www.washbat.org/
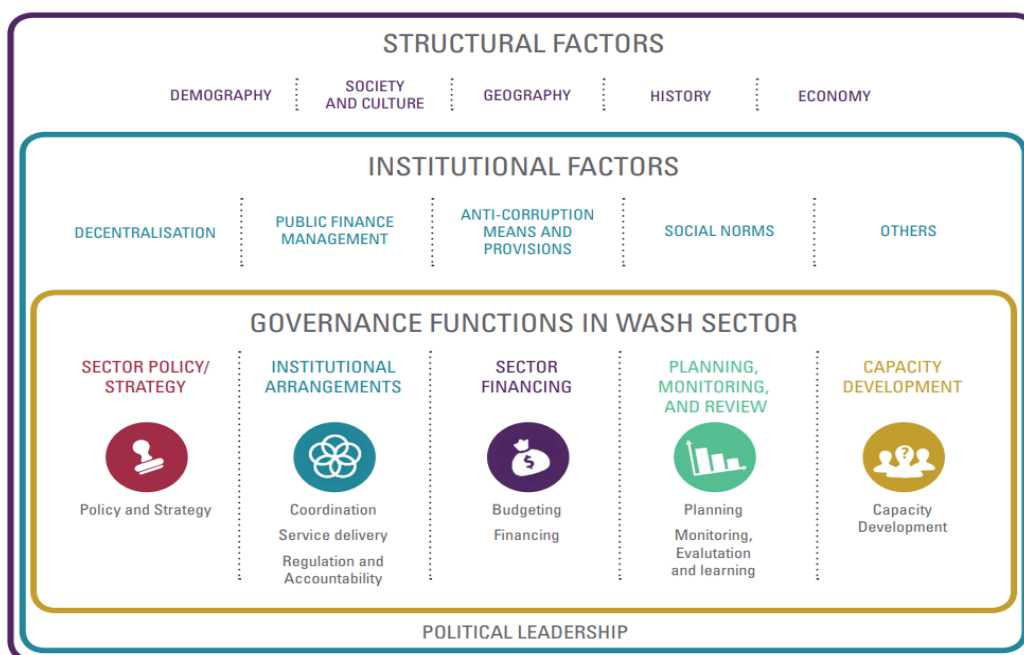
Table 1. The Research Questions per the Building Blocks Criteria

CRITERIA	RESEARCH QUESTION
Policy and strategy building block	• Rapid mapping of levels of Turkana's WASH institutional framework • Which partners will you target to enhance WASH access? Why? • Are policies informed by evidence? • Do policies and laws have supporting documents and implementing decrees that clarify roles and responsibilities, service norms and standards? • Do policies recognise the human right to water, covering affordability, accessibility, availability, quality and acceptability? • Do policies include coverage and service targets, including those aligned with 'safely managed' drinking-water services? What arguments and tools will you use? • Do policies and laws provide for financial resource allocation and priority setting? • Do policies and laws provide for equitable services, clearly stating target groups? • Do policies and laws provide for operational and financial sustainability? • Do policies and laws provide for environmental sustainability, including climate-resilient development? • Do policies and laws provide for accountability mechanisms between users, service providers and the county? • Are the county policies and laws implemented?
Sector coordination and planning	• Are institutional roles and accountabilities clearly defined and operationalized? • Does a well-functioning body coordinate stakeholders and meet as needed? • Do mandated government agencies lead stakeholders? • Is there one government-led plan? • Does the coordinating body include the private sector, community groups, government agencies, advocacy groups, civil society, and NGOs?
Service delivery arrangements	• Are there programs to support service providers and private-sector capacity building at decentralized levels for WASH access? • Are there programs and initiatives of technical assistance to train and support service providers on business development and technical capacity? • Do service providers receive external support and backstopping on a regular basis? • Do service providers have the technical and managerial capacity to effectively operate WASH schemes, projects, and facilities? • Are incentives in place for service providers to improve their performance?
Monitoring, evaluation, and learning	• List the mechanisms for monitoring, review and learning • How effective are they? • How well do they function? • What are your ideas for improving sector monitoring?

Other questions asked to support design the action plan:
Participants identified the 10 most critical criteria, identified bottlenecks, causes and possible solutions. Additionally, they were to come up with a costed action plan with clear roles for key actors. In groups, participants discussed, documented, and shared their presentations as presented on the annexed daily reports.

Stakeholder analysis and workshop participants

Before the workshop, a stakeholder analysis identified relevant participants who could inform the co-creation process.

Leaders from DWENRM and the Department of Health worked with a USAID Nawiri water systems advisor to determine the interests of possible participants, looking at their expectations and strategies to earn their support. Such engagement at the county level has proven critical to translating workshop outcomes to policy action.

The actors were mapped, with their roles and responsibilities, along with applicable laws. Mapping actors and networks of influence helps show how organizations coordinate and collaborate, a critical goal for USAID Nawiri.

Some actors provide complementary but necessary services. Others provide services essential to the outcomes, even if the project closes. Still others influence access to goods and services. Some organizations promote or impede an enabling environment and enhance the realization of USAID's Journey to Self-Reliance agenda. Inclusion of women, youth, the disabled, and marginalized was prioritized. Sources came from government, civil society, the private sector, and academia.

After the mapping, potential participants were grouped into state and non-state actors. The following attended (*full list in Annex 1*):

- **State Actors** (national and county government)
  - Turkana County: Department of Water Services, Environment and Mineral Resources, Department of Health and Sanitation and Department of Finance and Economics Planning.
  - C.E.C, chief officers, and directors
  - State corporations: Water Resources Authority, North Rift Valley Water Works Development Agency (NRVWWDA)
- **Non-State Actors:** Practical Action, LOKADO, TUPADO, SACONE, Concern World Wide, Save the Children International, Kenya Red Cross, Kerio Valley Development Authority, CRS, SAPONE, Practical Action, and others.

Table 2. Stakeholder analysis

STAKEHOLDER	RATIONALE	STAKEHOLDER EXPECTATION
Turkana DWENRM and DoH leadership and key staff	Constitutionally mandated to implement national policies on natural resources, including forestry and soil and water conservation. They also develop county legislation, policies, and plans. They are critical in rethinking policies, programming approaches, and operational procedures that promote greater donor-government commitment and capacity to lead their WASH access agenda without heavy dependence on aid.	Formulating partnerships that can: • Increase water, sewerage and sanitation services and infrastructure growth • Enhance environmental conservation • Promote climate change adaptation and mitigation • Increase county forest and tree cover and sustainable use of natural resources • Strengthen governance and compliance • Increase financial growth and sustainability • Promote knowledge management and data use
Rural water projects and LOWASCO	Water service providers get water to people, development the county's water assets	Access to information and opportunities for: • WASH infrastructure development • Operational efficiency and customer service • Financial sustainability • Institutional capacity • Corporate governance
Development partners, civil society, NGOs'	Critical support for the DWEMR and WSPs' to finance their WASH agenda by mobilizing public financing and developing an enabling environment for private sector investments.	• Effective partnerships for DWENRM and DoH's devolved functions • Safeguard consumers' interests • Partnerships on financing, knowledge exchange, institutional strengthening, advocacy, and lobbying. • Advocacy approach with civil society is expected to be collaborative, solution-oriented, and evidence-based.
National government, lead agencies, and state corporations (KFS, KEFRI, NEMA, WRA, WSTF, NWWDA, WASPA, WASREB & KWTA)	Their roles vary from developing WASH assets, regulation of services, customer rights protection, and finance. They create an enabling environment through developing policies and laws, lobbying and advocacy, research and knowledge management, good governance, and upholding the rule of law.	Effective partnerships with Turkana to improve water resources management, WASH infrastructure development, and asset management. This includes finance, consumer protections, compliance, accountability, regulation, data gathering, enhancing commercial viability of WSPs, upscaling of innovations, and knowledge sharing.
Private sector	Private sector engagement is essential to building resilient and lasting self-reliance. These include financing institutions, suppliers, and contractors. Counties are frontiers of economic growth and wealth creation. The business environment is very important in spurring economic growth for Turkana County and the nation	Collaboration to design market-based innovations through leveraging various WASH market actors, investments, firm behavior change, and technical expertise. This will boost business and development results during and after the activity. Partnerships will support hardware and software innovations, implement research on improving WASH access, finance the beneficiary duty bearers on their mandate. Support in transferring of skills including financing advisory and appropriate technology and corporate social responsibility.

STAKEHOLDER	RATIONALE	STAKEHOLDER EXPECTATION
Academia and research institutions	They support the departments' agenda on innovation, research, knowledge management, and technical expertise. These partnerships will generate, collect, synthesize, disseminate evidence and learning, and facilitate their use.	Enabling environment through resource allocation for research, incubation of innovations, intellectual property, and patent rights.

Limitation of the methodology

Workshop participants showed varying degrees of responsiveness and levels of understanding of the issues concerned. Data reported was not always accurate. This did not impede the assignment. When DWENRM leader and non-state actors were unable to participate in the workshop, phone calls and side meetings were held instead.

Summary of workshop findings per sub-sector

Water resources management

Table 3. Major bottlenecks in WRM sub-sector as per prioritized building blocks criteria and costed action plans

Criteria	Bottlenecks	Causes	Solutions
Sector policy and strategy	Lack of full implementation	Key roles are undefined. Others are overlapping Inadequate budget allocation Political interference	Set well-defined legislated roles Allocate sufficient funds Legal enforcement
Accountability and regulation	Inadequate Political goodwill Poor management	Misappropriation of funds Corruption Weak oversight	Strengthen financial institutions Proper auditing and prosecution Enhance oversight
Coordination	Lack of synergy among partners and county departments	Unclear laws on roles and responsibilities Competition among actors	Clearly defined institutional roles Cooperation among actors Setup proper structures
Budget and expenditure	Poor planning and spending within set time frames	Unbalanced wage bills Lack of competence in budgeting Reallocation of funds	Human resource audit Employment of only qualified personnel Proper expenditure plan

Criteria	Bottlenecks	Causes	Solutions
Capacity development	Inadequate funding	Overspending Poor planning during budgeting Corruption	Proper spending per vote Effective planning Strict law enforcement to the corrupt
Political leadership	Corruption	Illiteracy Weak oversight systems Poverty	Promote literacy in leadership Strengthen the oversight system Enhance equitable sharing of resources
Sector providers	Poor management	Nepotism Lack of expertise Lack of institutional capacity	Instill integrity Hire qualified experts and place them accordingly Build institutional capacity
Financing	Misappropriation of funds	Embezzlement Poor planning Personal interests	Strict adherence to PFM Act Proper participatory planning Follow code of conduct
Monitoring, evaluation, and learning	Unprofessionalism	Lack of ethical principles Poverty Inadequate technical staff	Instill professional ethics Empowerment of personnel Hire technical staff
Social norms	Culture	Attitude Superiority complex Gender	Adherence to laws and regulations Involve women in decision making and professionalism

The WRM Sub-sector group selected the following key activities as priority for the action plan:

Activity	Timeline	Priority	Responsible agency
Strengthening financing in IWRM	2021-2025	High	TCG, GoK, partners
Law enforcement	Immediately	High	GoK, TCG, partners, communities
Monitoring and evaluation	2021-2025	High	TCG, community, partners, CRS, GOK, Technical team from ministry of water, WRA

Sensitization and capacity building	2021-2025	High	TCG, GoK, partners, community, NRC, WRA, CRS, Nawiri
Mapping of water resources	2021-2023	High	TCG, GoK, communities, partners, WRA, NDMA
Training of government personnel	2021-2023	Medium	TCG, GoK, partners, Nawiri, CRS
Establish networking strategies and synergies creation	2021-2023	High	TCG, GoK, partners

The sub-sector identified these building blocks criteria as their key priorities: sector policy and strategy; institutional arrangements; accountability and regulations arrangement; financing; planning, monitoring, and review; and capacity development.

Sector policy and strategy

The workshop defined sector policy and strategy as the set of procedures, rules, and allocation mechanisms that provide the basis for programs and services; policies set the priorities and often allocate resources for implementation; policies are reflected in laws and regulations in WRM.

The county water policy includes water resources management, in line with the Water Act 2016. The county cabinet approved it, and stakeholders use it. However, more work needs to be done with social norms, equity aspects, rules for resource allocation, and priority setting. This cuts across the urban-rural spectrum. Environmental efforts have improved, through the establishment of Water Resource Users Associations (WRUAs) that have supported catchment protection through tree planting.

Overall, policy is informed by evidence such as coverage data, service quality, available financing, population impacts of poor services, and equity issues. Most of these indicators are according to Joint Monitoring Program guidance in monitoring SDG 6, EMCA, and NEMA.

The county's water policy and legal framework does not provide clarity on roles and responsibilities, service norms, or standards. The documents recognize the full human right to water. Coverage and service targets align with SDG 6. Equitable services, clearly stating the target groups, for environmental measures are covered. The policies and laws do not provide for financial resource allocation and priority setting or provide for operational and financial sustainability of services. Provisions for accountability mechanisms between users, service providers, and government are vague.

A Legal framework for private sector participation did not exist.

Institutional arrangements

Overall, institutional arrangements exist but still need better coordination, joint planning, implementation, and monitoring, along with pro-active information sharing.

Institutional roles and accountabilities are not clearly defined. A well-functioning body led by DWEMR coordinates stakeholders.

The WASH Forum needs private sector and academic actors. The terms of reference for the forum were not availed. Joint sector planning and monitoring needs to be strengthened to avoid overlapping and to enhance sector learning.

Accountability and regulation arrangements

The workshop defined accountability as mechanisms that improve relationships between users, service providers and government. They ensure that actions can be taken against poor performance, illegal acts, and abuses of power. The regulator WASREB is an independent body that oversees compliance and support institutions to meet standards.

Mechanisms for interaction and information exchange between government, citizens and non-state actors exist, but the workshop noted that independent institutions did not fully exert oversight and control. Nor did they provide performance-based incentives and penalties. National and county monitoring and verification systems for WRM are unavailable at multiple levels. Lead institutions have a clear role and responsibilities, but participants noted that corruption and poor performance are not punished. There are no clear mechanisms for consumer feedback and complaints and where they exist, they are not effective. Functional internal control mechanisms, such as county audits, do check for compliance. The regulator lacks resources and capacity for enforcement.

WASREB is not visible at the county level, does not act as a valid referee, and does not provide performance-based incentives or sanctions. Such work should include permits and environmental compliance for borehole drilling. Private sector actors are not willing to provide full documentation of the process. Incentives do not exist for investment in environmentally sustainable and efficient technologies. Therefore, very few are adopted.

Financing

WRM's financial needs are known. Legal and institutional frameworks to mobilize resources are partly in place. Financing institutions could help raise additional money, but the mechanisms are lacking. The private sector has few incentives to invest in WRM, while public money and external aid is insufficient. Bankable projects have not been documented. Misappropriation of funds and corruption are major challenges.

Planning, monitoring, and review

The workshop defined a WRM plan as a set of budgeted activities to achieve agreed targets, validated by a wide range of stakeholders.

The Turkana CIDP defines clear targets, indicators, responsibilities, and budgeted activities. Limited reviews and updates hinder service delivery. A financial plan is in place, but not an investment plan. The CIDP is developed in consultation with and validated by stakeholders but does not contain advocacy activities.

Appropriate evidence is obtained to analyze policies and plans and is used for managerial decisions. But stakeholders rarely review this evidence because there's not a monitoring feedback system or joint sector reviews. Learning processes for stakeholders are not established. GIS and other ICT technology are yet to be embraced in monitoring and mapping WRM activities.

Capacity development

Various capacity development activities exist. For DWEMR, the workshop noted that these activities are not based on the capacity gap in human and other resources. This leaves staff unable work effectively.

There's no needs-based capacity development plan. The DWEMR team were not aware if a human resources strategy exists. For instance, WRUAs and WUAs still struggle to manage water systems. Training institutions could deliver the cadres needed for scaling up WRM. Overall, capacity needs to be strengthened to monitor services against global, national, and county standards.

Urban and rural water supply

Table 4. Major bottlenecks in urban and rural water supply as per prioritized building blocks criteria and costed action plans

Criteria	Bottleneck	Causes	Solutions/Actions to address the bottleneck
Sector Policy and Strategy	Limited implementation of the established policies	Lack of capacity and development system Lack of political good will Insufficient funding for community sensitization and awareness	Proper budgeting and planning Resource mobilization Sensitization of sector players on Water Act 2019 Form water management committees
Coordination	Poor sector communication and information sharing	Duplication of roles in different county departments Setting up a communication platform	Realignment of county departments Define roles of the department Cascade down institution setup
Accountability and regulation	Lack of clear accountability structures	Lack of engagement with stakeholders Implementation of projects by different government departments	Joint evaluation of projects Training of WUAs on management Enhance social accountability Training of WSPs on performance management
Financing	Delayed disbursement of funds by national government and development partners	Lack of funds Uncleared pending bills Political interference	Involvement of non-state actors in development of infrastructure Timely payment of completed projects to contractors

Criteria	Bottleneck	Causes	Solutions/Actions to address the bottleneck
			Training of WUAs on water infrastructure management
Monitoring, evaluation, and planning	Lack of County WASH M&E framework Delayed implementation of incomplete projects Lack of M&E policy	Low funding Lack of personnel in the department of M&E	Establishment of M&E team Development of M&E policy, regulation, and strategy Funding M&E Incorporate ICT in M&E

The action plan follows:

ACTIVITY	TIMELINE	PRIORITY	RESPONSIBLE AGENCY	ACTIVITY	TIMELINE	PRIORITY
Strengthening Policy and Strategy	5 years	High	TCG, GoK, partners, community	Strengthening Policy and Strategy	5 years	High
Law enforcement	Immediately	High	GoK, TCG, partners	Law enforcement	Immediately	High
M & E	Project period	High	TCG, GoK, partners, community	M&E	Project period	High
Budgeting and planning	3rd & 4th quarter FY	High	TCG, GoK, partners, community	Budgeting and planning	3rd & 4th quarter FY	High
Sensitization and capacity building	2021- 2025	High	TCG, GoK, community, partners	Sensitization and capacity building	2021- 2025	High
Mapping of water resources	2021- 2023	High	TCG, GoK, community, partners	Mapping of water resources	2021- 2023	High
Training and capacity building of government personnel	2021-2023	Medium	TCG, partners, and GoK	Training and capacity building of government personnel	2021-2023	Medium

The sub-sector worked on all building blocks but re-ranked their key priorities for the urban and rural water supply services sub-sector: capacity development; service delivery arrangement; political leadership; decentralization; budget and expenditure.

Sector policy and strategy

County water policy and laws are in line with the National Water Act 2016 and the draft water policy. It was approved by the Turkana cabinet and used by all stakeholders. However, a strategic plan may be needed to strengthen social norms, equity aspects, rules for resource allocation, and future adaptation

requirements. This cuts across the urban, peri-urban, and rural aspects. The Turkana County Water and Sanitation Strategic Plan expires in 2021.

Overall, policy is informed by evidence. Most of these indicators are according to Joint Monitoring Program guidance in monitoring SDG 6, the Kenya Environmental Sanitation and Hygiene Strategic Framework, the Kenya Environmental Sanitation and Hygiene Policy, NEMA, EMCA and WASREB indicators.

A legal framework for private sector participation did not exist.

No county water policy or laws provide clarity on roles and responsibilities, service norms, and standards.

The county has a public participation act that needs better adherence. Citizens are not aware of their rights and responsibilities due to the limited public participation. Hence, their engagement is limited.

Institutional arrangements

Overall, institutional arrangements exist, but coordination, joint planning, implementation and monitoring, and pro-active information sharing is wanting.

Institutional roles and accountabilities are not clearly defined. The DWEMR coordinates stakeholders and meets as needed. The WASH Forum needs private sector and academic actors. Joint planning needs to be strengthened.

Accountability and regulation arrangements

Interaction and information mechanisms do exist, but independent institutions did not fully exert oversight or use incentives. This is mainly due to the lack of an accountability framework. Monitoring and verification systems for water supply are unavailable at multiple levels. Despite clear roles and responsibilities, with a performance appraisal system, corruption and poor performance is not punished. There are no clear mechanisms for consumer feedback. LOWASCO customer services are not effective. Internal controls do function, but the regulator lacks sufficient resources and capacity.

Private water operators, especially those with water bowsers/boosters, need training on water quality management and tariff setting.

Financing

Water supply's financial needs are known, and the legal and institutional frameworks for resource mobilization are partly in place. Mechanisms are needed to raise money through financing institutions. The private sector is not incentivized to invest. Public spending and external aid are insufficient. Bankable projects have not been documented.

Weak planning and participation are attributed to the limited budgeting and financing. Oversight on spending use and accountability is weak as well.

Workshop participants also noted Turkana has historically received little money from the Treasury for water supply.

Planning, monitoring, and review

The workshop defined a water supply plan as a set of budgeted activities to achieve agreed targets and validated by a wide range of stakeholders.

The Turkana CIDP defines clear targets, indicators, responsibilities, and budgeted activities, but with limited reviews. It has a financial plan but no investment plan. The CIDP is developed in consultation with and validated by stakeholders but does not contain advocacy activities.

Evidence is obtained for analysis in policies and management decisions, but there's no review system for stakeholders. Nor is there an established learning process, or an M&E system. ICT is yet to be incorporated into the M&E system.

Capacity development

Despite ongoing capacity development activities, the DWEMR does not have a program to address gaps in human resources, which leaves staff struggling to complete their duties. The county has no needs-based capacity development plan. Other findings from WRM apply.

Urban and rural sanitation

Table 5. Major bottlenecks in urban and rural sanitation as per prioritized building blocks criteria and costed action plans

Criteria	Bottleneck	Causes	Solutions
Coordination	**Main:** Participation challenges **Others:** Inadequate funds from TCG partly due to poor prioritization Insecurity	Weak logistical support including communication Weak mobilization	Strengthen WASH coordination mechanism Fund coordination and participation of stakeholders Enact laws and regulations to guide coordination of partners
Accountability and regulation	**Main:** Poor oversight systems partly due to inactive institutions, poor legal frameworks **Others:** Integrity issues partly due to weak systems Lack of commitment for implementation of regulations due to political interference and corruption	Inactive institutions Poor legal framework Poor citizen participation	Rules and regulations should be enacted to guide businesses Uphold procurement laws when doing business with the government
Political leadership	**Main:** Corruption, manipulation of tender processes, nepotism, incomplete or stalled projects	Nepotism in recruitment	Establish accountability structures

Criteria	Bottleneck	Causes	Solutions
	Others: Ghost workers Poor recruitment procedures Inadequate sharing of resources	Manipulation of tendering processes Incomplete or stalled projects	Entrench quality public participation in all government projects
Monitoring, evaluation, and planning	**Main:** Lack of consolidated information management systems	Poor sharing of information Slow technology uptake Poor network connections	Develop a monitoring and evaluation framework in the county Develop inter-ministerial data harmonization tool Formulate a county knowledge management technical working group Strengthen information dissemination and feedback Upscale of best practices
Budget and expenditure	**Main:** Unequal allocation of resources to sectors and programs **Others:** Slow or late dissemination of funds from national and county government Lengthy procurement processes The little resources allocated are diverted Public participation during budgeting is low or non-existent. Increased expenditures during last quarter of the financial year	Competing interests Diversion of funds Political interference	Enhanced community participation in planning and budgeting Improve social accountability mechanisms
Planning and mapping	**Main:** Poor planning **Others:** Duplication of activities in specific sites or sub counties Poor implementation of plans Limited community engagement in planning Planning is not informed by EIAs, community priorities, needs assessments and or feasibility studies.	Short duration of planning Inadequate resources for planning Poor community involvement Duplication of activities	Joint sector planning Mapping of stakeholders for joint planning

Criteria	Bottleneck	Causes	Solutions
Capacity development	**Main:** Non-adherence to performance appraisal reports and work plans **Others:** Lack of dissemination of approved CIDP plan or strategic plans Lack of capacity development plans Inadequate funds Limited prioritization of capacity development programs Lack of expertise	Lack for facilitation for workplan activities implementation	Conduct annual needs assessment for all departments
The Subsequent components were not a priority but were discussed:			
Decentralization at village units, ward/sub-county	Lack of regulations or policies to support decentralization Inadequate staffing Inadequate prioritization of community plans Skewed development priorities Decentralization of resources		
Service delivery arrangements	Services are uncoordinated Misplaced functions/priorities Not following policies/regulations in service delivery Inadequate infrastructure for service delivery Political interference/conflicting interests Insecurity Lack of M&E plans and data collection Inadequate strategic plans for service delivery Inadequate checklists for annual development plans and feedback		
Sector providers	Few skilled personnel Budgetary constraints Duplication of efforts/activities Poor coordination for sector providers No joint work planning and implementation Unresponsive utility service providers to customers' needs.		

The action plan follows:

Solutions	Activity	Lead agency	Priority level	Timeline	Cost	Proposed sources of funds
Strengthen coordination mechanism **Fund coordination and participation of stakeholders** **Enact laws and regulations to guide coordination of partners**	Conduct monthly coordination meetings between state and non-state actors implementing sanitation and hygiene services	MOH - Department of public health	High	Quarterly	KES. 600,000	MOH county and partners: UNICEF, CRS, KOICA, DOL
Enact rules and regulations to guide businesses **Uphold procurement laws when doing business with the government**	Create public awareness and sensitization on regulations about WASH	MOH- Public Health Officers	High	Monthly	Kes. 1mln	MOH county and partners: UNICEF, CRS, KOICA, DOL
Establish accountability structures **Entrench quality public participation in all government projects**	Local CSOs to carry out public awareness on public participation for advocacy and accountability	Ministry of Economic planning: Directorate of public participation, county assembly	High	Monthly	KES. 1mln	MOH county and partners: UNICEF, CRS, KOICA, DOL

Solutions	Activity	Lead agency	Priority level	Timeline	Cost	Proposed sources of funds
Develop M&E framework **Harmonize data across ministries and create a county knowledge management technical working group** **Strengthen information dissemination and feedback** **Upscale of best practices**	Operationalize the Framework for MEL at the county level to ensure efficient tracking of the project progress on sanitation	MOH- MEL Department	High	Quarterly	KES. 500,000	MOH county and partners: UNICEF, CRS, KOICA, DOL
Enhanced community participation in planning and budgeting **Improve social accountability mechanisms**	Support participatory planning and budgeting for sanitation	Ministry of Economic Planning: Directorate of public participation	High	Yearly	KES. 5mln	MOH, county and partners: UNICEF, CRS, KOICA, DOL
Joint sector planning **Mapping of stakeholders for joint planning**	Support in mapping of sanitation sector service providers at the county	MOH	High	Bi-annual	KES. 300,000	MOH, county and partners: UNICEF, CRS, KOICA, DOL
Conduct annual needs assessment for all departments	Support human resource development in sanitation department	Public Service Board/HR department	High		KES. 3mln	MOH county and partners: UNICEF, CRS, KOICA, DOL, Nawiri

The sub-sector identified the following building blocks criteria as their key priorities for urban and rural sanitation sub-sector: institutional arrangements; coordination and accountability; budgets and expenditures; and monitoring.

Institutional arrangements: coordination

A county- led coordination body exists, but the devolved sanitation roles are not clearly divided between the Department of Health and DWEMR. The coordination body includes community organizations, government agencies, advocacy groups, civil society, and NGOs. The private sector and academia are yet to join. Despite having a coordination body, sector communication is still lacking. County departments need to realign their roles and decentralize the mandates to villages.

Institutional arrangements: accountability

Overall, county monitoring and verification systems for sanitation are in place at multiple levels. Lead institutions have a clear role and responsibilities and have a performance appraisal system. Reporting by different line county departments and sub-counties is consolidated, but more resources and skills are needed to implement the regulations. An independent regulatory authority exists for sanitation and is empowered to fulfil their mandate. Incentives are minimal for investment in environmental technologies. Joint evaluations can improve social accountability in sanitation.

Budget and expenditure

The budget is disaggregated by sanitation and expenditure is tracked. Sometimes budgets and expenditure reports are publicly available. Tariffs are not regulated. Capital expenditure to meet sanitation investment targets are inadequate. Funding does not incorporate equity criteria and does not include specific measures to reduce service inequality. Customers do have a body that represents their needs in budgeting processes, but public participation needs to be enhanced. Funding for sensitization campaigns is not explicitly addressed in the budgeting process. Multi-year budget allocations are provided in the CIDP and other documents. Long-term commitments are known, such as expansion of sewerage coverage in Lodwar town. Donor funds are not aligned with government systems. There is a clearly articulated procurement process.

Monitoring

A monitoring feedback system to improve decision-making across different levels exists. Annual joint reviews rarely taken place according to schedule, due shortages of funding and staff. Common indicators are monitored over time, reflecting functionality, hours of service, affordability, quality, quantity, and cost effectiveness. Service providers are classified as formal or informal. Details are given on parts of the service chain, such as on-site provision, emptying, transport, treatment, discharge, and reuse.

Coverage of specific populations is monitored to track services for vulnerable groups.

Service providers report their internal monitoring against required service standards to the regulator, but and these can take a year to be released. LOWASCO's performance is made public, including customer satisfaction data. Established sector learning processes are seldomly used by stakeholders. M&E needs funding and access to ICT.

Political Leadership

Elected and non-elected representatives are actively involved in planning and advocacy. Traditional and community leaders are represented and engaged. However, corruption and nepotism in hiring challenge. The workshop proposed that accountability structures are put up and public participation is adopted.

3. Recommendations for USAID-Nawiri Programming

Efforts were made to link this analysis to the county planning process and to the USAID Nawiri program, to ensure that outputs and outcomes of the action plan are integrated into them. Activities suggested here should align with USAID's Journey to Self-Reliance to strengthen local capacities and work with host county governments and partners. The activities should also be shaped by a Collaboration, Learning, and Adapting strategy.

1. Augmentation of water infrastructure and innovative water resources management is required to improved access to water under growing demand. Turkana's water access is increasing, but so is the pressure on water resource management. In fact, the pressure is already critical. As limited water goes to more people, management will become ever more important. Efficient delivery will help, but ultimately more water is needed. This requires managing pollution, protecting water sources, getting better data, using climate-smart technologies, and better regulation.

2. Performance Improvement of Water Utilities. LOWASCO ranks in the bottom 10 of Kenyan water utilities. Low water access exposes the underserved population to water-borne diseases, absenteeism in schools, malnutrition, stunting, high health costs, and reduced time for productive activities by women and youth to earn money. Conflicts among pastoralists become more common. Sub-counties experience glaring disparities in access. The rural population lags behind urban areas, while informal settlements have much lower access. Investment and capacity development are required, especially in rural areas and informal settlements. Decentralization of county government budgets will ensure investment equity and balanced development.

3. Turkana needs to build and sustain demand for sanitation According to SMART, (2017), in 2018 the Open defecation levels stood at 86.1%, a drop from 96% (KNBS 2009) and as per workshop participants views, could be even lower at 70%. The sector financing is skewed against sanitation that also includes sewerage with a large share allocated to water supply and resource management than sanitation. The biggest challenge on sanitation in Turkana County that requires policy intervention is on building and sustaining demand before moving into sanitation marketing. An avenue would be linking sanitation to income generating activities for women and youth.

4. Data collection and processing is either unavailable or not integrated. This limits data availability for analysis to inform policy, especially on issues related to women, youth, and the marginalized. Turkana needs a centralized platform and working group on integrated data and information for WASH.

5. Turkana's WASH budget is Ksh.1.5 billion a year. That's a lot compared to other counties, but not enough to match the needs on the ground. The budget is not always spent, and is also hampered by delayed disbursements, procurement bottlenecks, and project delivery challenges. Capacity development on budgeting and project management could restore credibility. But government allocations to WASH are declining, and locally generated funding is not increasing. Further, financing by development partners tends towards loans over grants. Negotiations could

focus more on concessionary loans with lower interest rates and longer repayment periods. A multi-stakeholder approach in planning, budgeting, and monitoring is critical to encourage synergies in the sector. Education, health, and social protection sectors need to be involved while mainstreaming needs of women, youth, and the marginalized.

6. More kinds of financial products are needed. The WASH sector depends on tariffs and transfers for funding. Using other counties as models, increasing the use of repayable finance products can encourage development, build resilience to shocks, and contribute to meeting investment targets.

7. Turkana has not fully mainstreamed women, youth and the marginalized in policymaking. The lead facilitator had to constantly remind participants to include them in their analysis. This calls for intensive promotion around need for WASH services for households, schools, health centers, markets, and other public places. Also needed are programs and infrastructure around hand washing and menstrual hygiene, with data sharing on beneficiaries.

8. Proper governance at all levels is the heartbeat of sustainable WASH access. USAID Nawiri must focus on good supervision and oversight; stakeholder engagement; prudent financial management; integrity and accountability; robust performance management; information and control systems; good service standards and arms-length operating for WSPs.

9. Adoption of service delivery management models promoted by WASREB will professionalize service provision and regulation in viable water projects in small towns, rural areas, and IDP and refugee camps. DWEMR needs to use commercial models in these areas.

10. Use performance-improving measures to make WSPs more efficient. Nakuru Water and Sanitation and Kakamega County Water and Sanitation companies have successfully used performance improvement plans. Commercial, financial, governance, and technical improvements have let WSPs improve operation. Adoption of technologies and models would give managers tools to drive performance improvements. This can include county government, WSPs, and WASPA. USAID Nawiri should encourage consumer-centric operations in the new water utilities.

11. Civil society must join forces with strategic partners to coordinate their lobbying and advocacy goals. USAID Nawiri embed community interest into policies and practice. This can empower civic groups to engage decision-makers with sound arguments and a solid evidence base. It can also empower CSOs to have a greater voice as advocates, and to effectively serve the interests of the people they represent.

Annex 1: Participants

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