ISSUE NO.: 17-2025

IMPACT

A Performance Report of Kenya's Water Services Sector 2023/24

REPUBLIC OF KENYA

KENYA VISION 2030

CERTIFIED ISO 9001:2015 COMPANY

WASREB
Water Services Regulatory Board

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Water Services Regulatory Board

ABOUT US

MISSION

To Provide Regulatory Environment that Facilitates Sustainable Water Services in Line with Human Rights to Water and Sanitation.

VISION

Sustainable Water Services for Quality Life.

CORE VALUES

Accountability

Responsiveness

Innovation

Teamwork

Integrity

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ABBREVIATIONS AND ACRONYMS

CWI	Credit Worthiness Index
DWQ	Drinking Water Quality
ESAWAS	Eastern and Southern Africa Water and Sanitation
KPIs	Key Performance Indicators
NAWASIP	National Water and Sanitation Investment Plan
NRW	Non-Revenue Water
O+M	Operation and Maintenance
PE	Personnel Expenditure
SDGs	Sustainable Development Goals
SSSPs	Small-Scale Service Providers
UN	United Nations
WASH	Water Hygiene and Sanitation
WASREB	Water Services Regulatory Board
WRA	Water Resources Authority
WSP	Water Service Provider
WSUP	Water & Sanitation for the Urban Poor
WWDA	Water Works Development Agency

FOREWORD

I regard the implementation of devolved governance as a vital component of the principle of subsidiarity in service delivery. However, in some areas, this framework continues to pose challenges with regard to ensuring effective and efficient service provision. The essence of devolution is to bring services closer to people in terms of both actual service responsibility and accountability. However, this does not necessarily mean a change in water management principles of equity, efficiency, and sustainability. Yet still, when we look back, significant achievements have been made through water sector reforms guided by good global practice.

However, as we reflect on the progress and challenges of the water sector in our latest Impact 17 Report, it is evident that while significant strides have been made, critical issues such as Non-Revenue Water (NRW) remain a persistent concern. Despite concerted efforts, NRW levels have continued to decline, underscoring the need for more innovative and aggressive interventions to curb losses and enhance efficiency. Addressing NRW is an operational priority and an economic and environmental imperative.

Upcoming innovations are beginning to transform operations. Yet, these gains will remain incomplete if we do not resolve the NRW issue. This report is both a reflection of where we stand and a roadmap for the work ahead.

Regulatory Compliance for Equitable Access to Water and Sanitation

Reducing NRW requires technology, regulatory enforcement and compliance, and community participation.

Regulatory compliance is the key to achieving truly equitable service delivery across all communities. We must confront the sobering reality that, despite significant advancements in regulatory frameworks and infrastructure development, persistent gaps in compliance continue to hinder universal access. This results in an inequitable distribution of services and compromised quality, and ultimately, our most vulnerable populations are let down by non-compliant WSPs. However, these challenges also present remarkable opportunities. The evidence unequivocally demonstrates that WSPs that achieve full compliance exceed benchmarks, resulting in:

- Increased consumer satisfaction ratings.
- Enhanced financial viability.
- Greater resilience to climate shocks.

This report diagnoses issues and outlines the compliance pathway necessary to achieve Sustainable Development Goal 6 (SDG 6). We possess the solutions, but implementing them will require unprecedented levels of cooperation, creativity, and, most importantly, a steadfast commitment to adhering to the regulations. I would like to congratulate WSPs who have improved their performance through unrelenting commitment, sheer will, and focus.

As we analyse these findings, let's commit to transforming "equitable access" from a mere catchphrase into a measurable reality for all Kenyans.

Job Chirchir,

Chairman

PREFACE

Sustainable development and human dignity continue to be based on access to safe, reasonably priced, and dependable water and sanitation services. As we present the 17th edition of the IMPACT Report, we consider the vital role that regulation plays in promoting accountability, transparency, and equity throughout Kenya's water sector.

Established by the Water Act of 2016, WASREB has continued promoting a regulatory framework that guarantees sustainable service delivery and fair access. This year's theme, "Regulatory Compliance for Equitable Access to Water and Sanitation," emphasizes our commitment to closing service delivery gaps to Kenyans through water service providers' (WSPs') adherence to regulations, performance, and standards. The launch of the report is timely, aligning with the enactment of the Water Services Regulations 2025, which are intended to operationalize and advance the objectives of the Water Act 2016.

This report provides an impartial assessment of sector performance across licensed Water Service Providers (WSPs) and counties, highlighting key insights into their levels of compliance. Most importantly, it reinforces our regulatory philosophy: that compliance serves as a pathway to enhanced efficiency, strengthened consumer confidence, and inclusive development – not as a tool for punitive action.

Crucially, the regulatory environment must ensure that non-compliance is not a viable option—through consistent enforcement, appropriate sanctions, and strengthened institutional accountability.

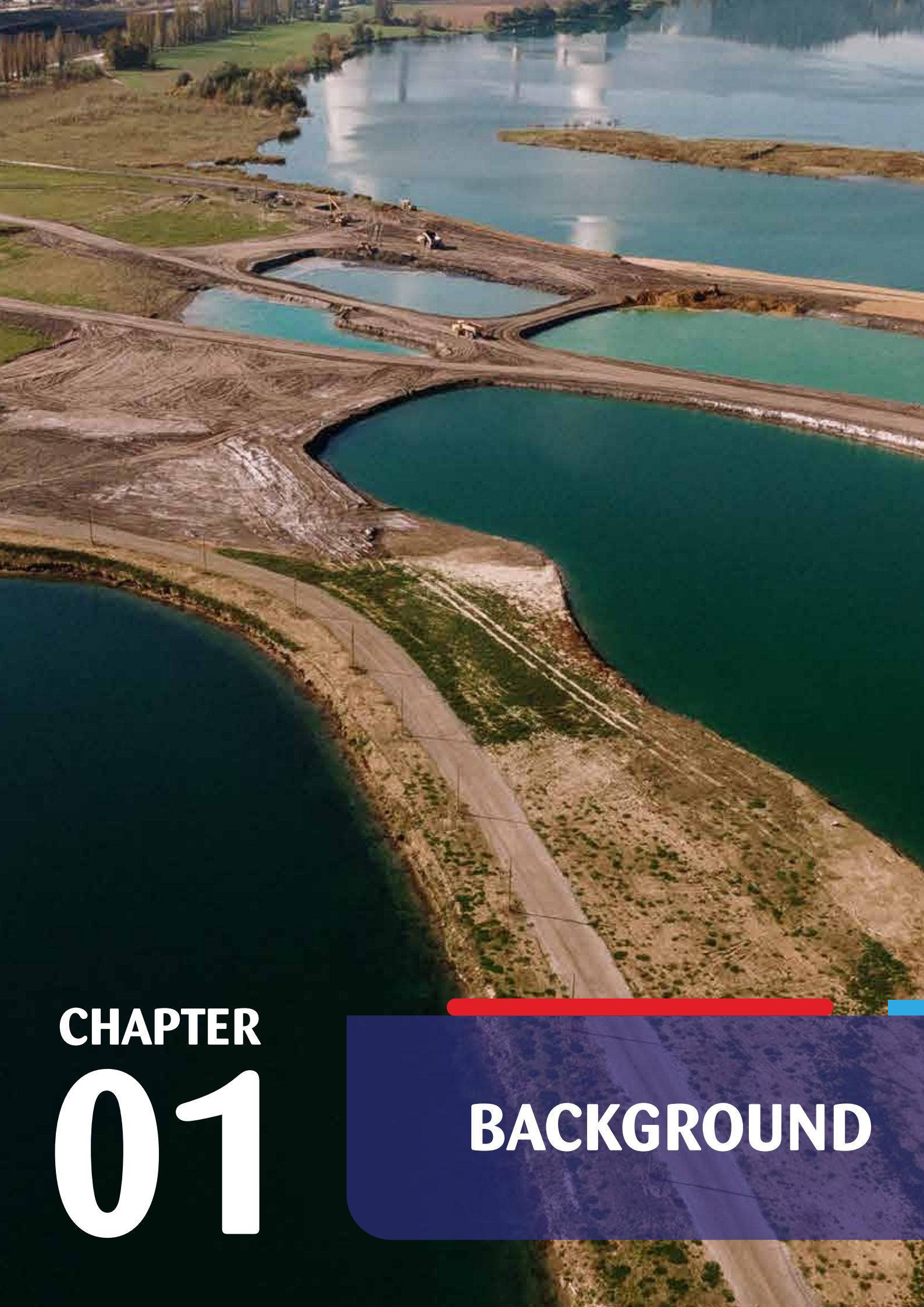
WASREB has prioritized collaborative regulation in accordance with national and international commitments, such as the Sustainable Development Goals (SDGs).

> ***"Compliance is a means to increase efficiency, better consumer confidence, and inclusive development rather than a means of punishment."***

We are still collaborating closely with County Governments, WSPs, consumers, and development partners to enhance governance, enhance investment planning, and open up new financing options. We hope these collaborations will spur quantifiable improvements in service resilience, quality, and coverage.

Since we can only attain universal and equitable access to water and sanitation for all Kenyans through shared responsibility, I implore all stakeholders in the sector to continue to be resolute in their commitment to regulatory compliance as we proceed. Congratulations to all WSPs that have improved their performance.

Richard Cheruiyot
Ag. Chief Executive Officer



CHAPTER 01

BACKGROUND

'Leaving no one behind' is the central promise of the 2030 Agenda for Sustainable Development. A society can only achieve high rates of public health, gender equity, educational attainment, and economic productivity when all its members enjoy their rights to water and sanitation. Respect for human rights must be integrated into development plans for all sectors, at all levels." - UN Water.

1.1 Global Outlook on the attainment of SDGs

1.1.1 Global Outlook on SDG 6 Achievement – 2024 Mid-Term Review

Global Outlook on SDG 6 Achievement – 2024 Mid-Term Review

As of 2024, global progress toward achieving Sustainable Development Goal 6—clean water and sanitation for all—is mixed. While notable improvements have been made in some areas, others remain significantly off track. Access to **basic drinking water** has improved globally, reaching 91% of the population by 2022. However, only 73% had access to safely managed services, highlighting ongoing inequalities, particularly in rural areas and least developed countries, where over 2 billion people still lack safe drinking water.

Sanitation services show slower progress. As of 2022, only 57% of the global population used **safely managed sanitation**, leaving around 3.5 billion people without it.

This data is derived from the 2024 Mid-term Status Report on SDG 6, presented at the 10th Meeting of the Parties to the Water Convention in Slovenia on 23 October 2024. The report was compiled by the Integrated Monitoring Initiative for SDG 6 under UN-Water, a key organization responsible for global monitoring of water-related targets.

Summary of the SDG 6 report

- 91% of the global population has access to basic drinking water, but only 73% to safely managed services.
- 57% of the global population uses safely managed sanitation services.
- 75% have access to basic handwashing facilities.
- 58% of wastewater is safely treated.
- Around 60% of monitored water bodies meet national water quality standards.
- The global water use efficiency is USD 19/m^3.
- Water stress levels remain stable globally but are high in 18 countries.
- The global average score for Integrated Water Resources Management is 54/100.
- Wetlands and water ecosystems continue to shrink.
- International financing for water and sanitation has declined since 2018.

CHALLENGES

- Over 2 billion people still lack safe drinking water.
- About 3.5 billion lack safely managed sanitation, and 1.4 billion lack basic hygiene.
- Rural areas and least developed countries lag far behind in services.
- Wastewater treatment capacity and infrastructure remain inadequate, especially in low-income regions.
- Many countries lack robust data collection and reporting systems.
- Agriculture remains inefficient in water use.
- Rising climate pressures and urbanization are increasing water stress.
- Transboundary water cooperation is limited, especially in Africa and Asia.
- Water-related ecosystems are degrading due to pollution, overuse, and lack of restoration funding.
- Financial assistance for water and sanitation is declining.

Hygiene services have improved, with 75% of the global population having access to basic handwashing facilities, though wide regional disparities remain, especially in sub-Saharan Africa.

In terms of **wastewater treatment,** only 58% of domestic and industrial wastewater was safely treated by 2022. Urban areas perform better than rural regions, but overall progress is constrained by limited infrastructure and data availability, particularly in low-income countries.

Monitoring of **ambient water quality** has increased, with around 60% of monitored water bodies meeting national quality standards. However, many countries still lack robust systems for data collection and reporting, obscuring a complete picture of global water quality.

Water use efficiency continues to improve slowly. As of 2020, the global average was USD 19 per cubic meter, though efficiency remains low in agriculture—the largest water-consuming sector—particularly in low- and middle-income countries where technology and investment gaps persist.

Water stress remains a growing concern. Globally, water stress levels have remained relatively stable, but 18 countries already experience extremely high levels of water withdrawal. Rising demand and climate change are expected to increase stress further in the coming years.

The implementation of Integrated Water Resources Management is progressing moderately. In 2020, the global average score was 54 out of 100, with many countries having adopted policies, but lacking the institutional coordination and financing needed for effective execution.

Transboundary water cooperation remains limited. Out of 153 countries sharing transboundary waters, only 32 had operational arrangements in all shared basins by 2022. This presents a major challenge, particularly in regions like Africa and Asia where shared water resources are vital.

CALL TO ACTION

Accelerate progress toward safely managed water, sanitation, and hygiene for all.

Address inequalities in service access, especially in rural and low-income settings.

Strengthen infrastructure, data systems, and monitoring capacity.

Implement the Water Action Agenda launched at the 2023 UN Water Conference, focusing on:

- Public-private partnerships
- Blended financing
- Improved water data and governance

Water-related ecosystems are in decline. Wetlands and other water-dependent ecosystems are shrinking due to land use change, pollution, and overextraction. Although satellite technology has improved tracking, ecosystem restoration efforts remain limited and underfunded.

Support for implementation is weakening. International financial assistance for water and sanitation has declined since 2018. However, community participation in water governance has improved in many countries, driven by stronger institutional frameworks.

Overall, the pace of progress is insufficient. The UN-WHO/UNICEF Joint Monitoring Programme projects that if current trends continue, 2 billion people will still lack access to safely managed drinking water by 2030, 3 billion will be without safely managed sanitation, and 1.4 billion will lack basic hygiene. Climate change, urbanization, pollution, and financial constraints continue to place significant pressure on water systems.

The 2023 UN Water Conference launched the Water Action Agenda to address these challenges, focusing on public-private partnerships, blended financing, and improved water data. While some progress is evident, achieving SDG 6 by 2030 will require faster, targeted, and inclusive action across all indicators.

1.1.2 Kenya's Progress on SDG 6

Kenya's progress toward achieving SDG 6 reflects a mixed picture of gains and challenges. Kenya performs relatively well in some areas, particularly in community participation and water quality monitoring compared to global averages. However, it falls behind in sanitation and wastewater management.

By 2022, approximately 59% of Kenyans had access to safely managed drinking water services, a significant improvement over the past decade but below the global average of 73%. Urban areas have seen an expanded infrastructure, though rural communities still face access gaps.

Kenya's sanitation performance is notably lagging. Only 29% of the population used safely managed sanitation services in 2022, well below the global average of 57%. Open defecation and the use of unimproved latrines remain common in many rural and peri-urban areas.

Similarly, only 59% of households had access to basic handwashing facilities, compared to 75% globally.

Wastewater treatment is one of Kenya's most pressing challenges. As of 2023, only 15% of domestic wastewater was safely treated, far below the global average of 58%. Inadequate treatment infrastructure contributes to environmental degradation and public health risks.

Water quality, on the other hand, shows relatively strong results. Around 56% of Kenya's monitored water bodies met national quality standards, aligning with the global average. This indicates that many natural water sources remain in acceptable condition despite limited treatment capacity.

Kenya also faces high water stress. About 54% of available freshwater resources are withdrawn annually—more than double the global average of 25%. This pressure is driven by population growth, climate variability, and inefficient agricultural practices.

Kenya scored 55 out of 100 on water governance in implementing Integrated Water Resources Management. While this score is close to the global average, it points to ongoing coordination, funding, and enforcement gaps. However, Kenya excels in community participation, with all six water and sanitation sub-sectors reporting active local involvement, a key factor for sustainable service delivery.

Transboundary water cooperation shows moderate progress. Kenya has operational arrangements covering 54% of its transboundary basins. While this is above the global average, more robust regional agreements are needed, particularly in basins such as the Nile, where upstream and downstream coordination is essential.

Kenya's progress toward SDG 6 highlights both achievements and critical challenges. While strides in water access, quality monitoring, and community engagement are encouraging, significant investments and policy reforms are required to address weaknesses in sanitation, wastewater treatment, and water resource sustainability. Aligning national action with global priorities will be vital to achieving universal water and sanitation access by 2030.

1.2 Changes in the Kenyan Legal & Regulatory Landscape

1.2.1 Public-Private Partnerships under the Water (Amendment) Act, 2024

The Water (Amendment) Act of 2024 introduced pivotal reforms to support Public-Private Partnerships (PPPs) in the water sector to finance and improve water and sanitation infrastructure across Kenya.

- Public Entities at the National and County levels have been empowered to enter into PPP Agreements.
- Expanded the definition of Bulk Water Service Providers (BWSPs) to include licensed water service providers, contracting authorities, and other entities supplying bulk water under WASREB's oversight.
- The National Water Harvesting & Storage Authority (NWHSA) is empowered to enter PPPs directly with private parties, or water works development agencies for water service provision, in consultation with WASREB.
- The nine Water Works Development Agencies (WWDAs) have expanded authority to operate bulk waterworks and form partnerships with investors and water services providers. They continue temporarily operating waterworks until responsibility is transferred to local governments or water services providers. Transfers exclude national public waterworks, which cannot be handed to county governments.
- To ensure value for money in projects, the amendment has provisions for Contracting authorities to complete projects if a private partner fails to deliver.

The amendment defines the constitution, qualifications, terms and remuneration for Water Tribunal members to ensure effective oversight.

WASREB, the Regulatory Board, will have expanded powers to oversee and regulate bulk water services and water works development agencies.

The Cabinet Secretary for Water, Sanitation, and Irrigation was also tasked with creating guidelines for bulk water supply license applications and enhancing regulatory clarity.

1.2.2 Water Services Regulations 2025

The Water (Services) Regulations were revised to align with the Water (Amendment) Act 2024, introducing key reforms to enhance governance, accountability, and service delivery in Kenya's water sector.

Key Highlights include: -

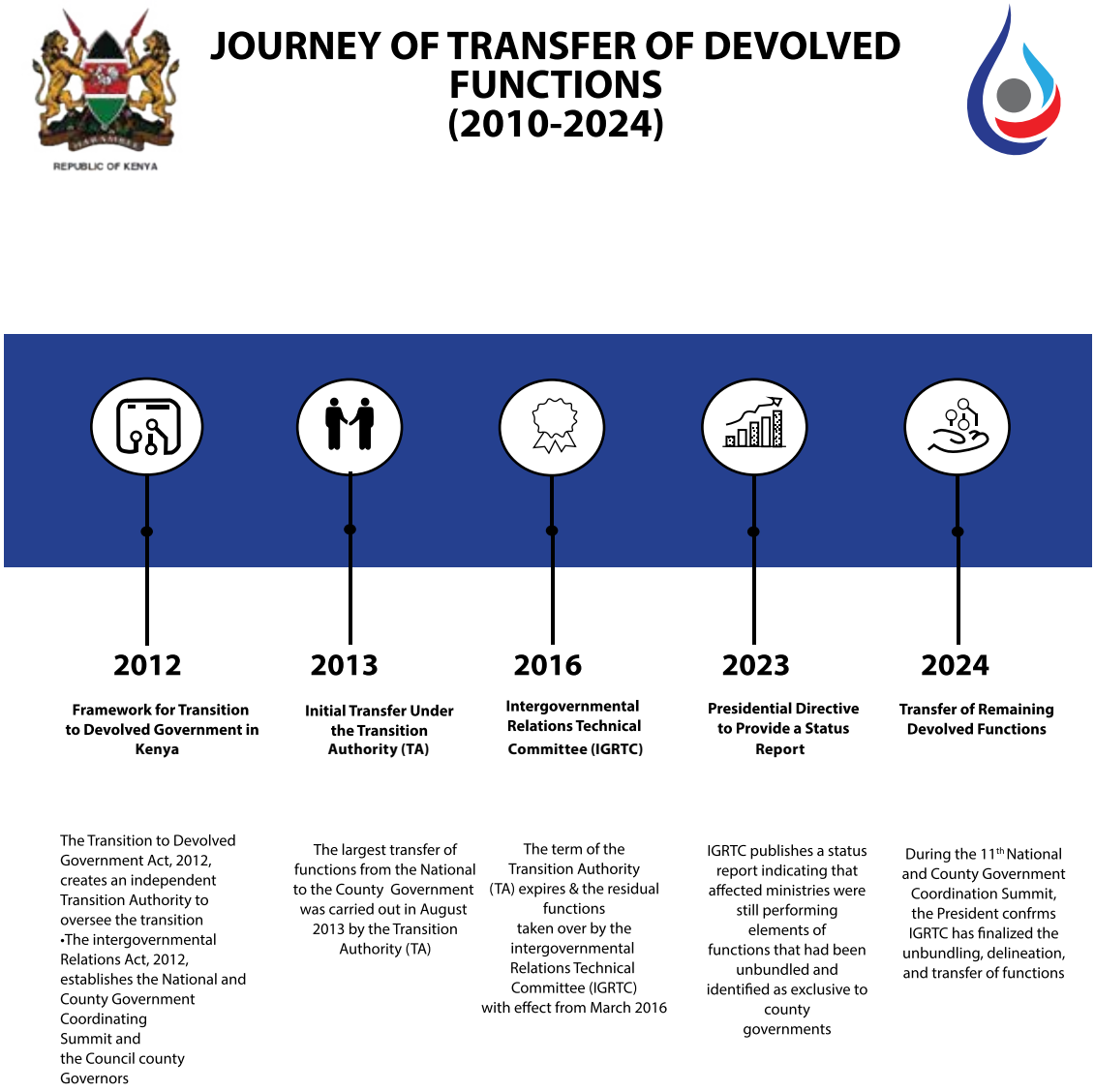
- Governance and Management Qualifications:
  - Regulation 11(2) sets minimum qualifications for county water service provider board members to be a degree.
  - Regulation 12(3) reinforces the competence criteria for executive staff, including
- A competence matrix for executive staff appointments is annexed to the regulations.
- Counties are no longer required to gazette their water services strategies post-approval, allowing for greater administrative flexibility.
- The regulations clarify that PPPs in the water sector are governed by the Public Private Partnerships Act, 2021, amongst other laws.
- The mandatory requirement for counties to establish a Dedicated Fund for underserved areas has been removed, permitting alternative funding strategies.
- Regulation 22(1) provides enhanced guidance on the public consultation process of WSPs, promoting transparency and inclusivity.
- Water Service Providers (WSPs) and the Regulatory Board are no longer required to engage specifically with Water Action Groups (WAGs) under Regulation 91(a), allowing for more flexible consumer engagement approaches.

The 2025 regulations link penalties for contravention of the rules to Section 147 of the Water Act, 2016, which stipulates that offenses not otherwise specified are punishable by a fine not exceeding one million shillings, imprisonment for up to two years, or both.

These revisions aim to professionalize the sector, enhance flexibility, and ensure strategic alignment in water service delivery while reinforcing enforcement and performance standards.

1.2.3 Intergovernmental Co-ordination Framework 2024

On December 16, 2024, a significant advancement in devolution was achieved by completing the delineation of functions between the national and county governments.



This process, guided by a Presidential Directive and facilitated by the Intergovernmental Relations Technical Committee (IGRTC) under the Intergovernmental Relations Act (2012), emphasized; Mutual consultation and cooperation in resource transfer to support function implementation; Adherence to national values of inclusivity, accountability, and sustainable development; County governments' role in facilitating community participation and building administrative capacity at the local level; Division of Responsibilities; The framework outlines specific functions for each level of government.

Roles of the National Government and County Governments with regard to Water and Sanitation Services

NATIONAL GOVERNMENT	COUNTY GOVERNMENTS
Develope national policies, legislation, standards, norms & guidelines	Formulate county specific policies & legislation aligned with national standards
License & regulate water services	Provide water & sanitation services, including establishing WSPs
Plan & develop national public water & sanitation infrastructure	Develop county level water & sanitation infrastructure
Construct dams & oversee water storage initiatives	Undertake county-specific water harvesting projects Monitor
Monitor & evaluate national public works & critical infrastructure	Monitor WSP performance to ensure it is in line with national guidelines.
Implement national & basin level water & sewerage master plans	Develop County Water Policies & Strategies
Manage asset inventory & valuation for national public works	Implement county public works & manage related assets
Develop pro-poor interventions & guidelines on water vending	Execute pro-poor interventions & water vending strategies
Provide capacity buidling & support to county governments	

1.2.4 Citizen Engagement Standards

WASREB released the Citizen Engagement Standards to establish citizen engagement standards for water utilities in Kenya. The guideline focuses on establishing consumer engagement standards, performance indicators for quantifying and ranking consumer engagement across the water and sanitation service chain, and a tool to assess utilities' performance based on these indicators.

The standards developed include a consumer engagement policy with a roadmap for grievance management, showcasing multiple channels for reporting grievances, such as USSD, SMS, websites, office visits, telephones, toll-free lines, and customer care desks.
Additionally, the guidelines provide a framework for handling complaints, a grievances service charter with fixed timelines for action, and a consumer sensitization plan at the utility level. The standards also include robust indicators of consumer engagement.

Furthermore, the guidelines incorporate best practices on how Customer Relationship Officers (CROs) at Water Service Providers (WSPs) can engage citizens, integrate the recommendations of the Water Regulations into the citizen engagement ecosystem, and recommend a framework for handling whistleblowers.

1.3. Overview of the Regulator's Actions and Initiatives

1.3.1.Strengthening Sector Reforms and Financing

The National Water and Sanitation Investment Program (NAWASIP) is Kenya's roadmap toward achieving universal access to water and sanitation by 2030. It envisions a sector led by commercially viable Water Service Providers (WSPs) that deliver reliable services and finance their operations sustainably.

A key pillar of this vision is the expectation that WSPs will service their debts to Water Works Development Agencies (WWDAs) using revenue from approved tariffs. However, widespread non-repayment by WSPs has left WWDAs unable to meet their obligations to the Government of Kenya. This has contributed to an estimated sector debt of KSh 225.7 billion, posing a significant threat to NAWASIP's goals.

The Ministry of Water, Sanitation, and Irrigation (MoWSI) is advancing the Debt Restructuring Taskforce's recommendations to address this in collaboration with county governments and the National Treasury. To support NAWASIP's objectives and improve sector viability, WASREB leads several key initiatives:

- Assisting counties and WSPs in implementing cost-reflective tariffs and targeted subsidies - unlocking new revenue while ensuring equity.
- Through oversight and enforcement of governance standards, WASREB strengthens WSPs' institutional frameworks, enabling them to function as semi-autonomous entities.
- WASREB tracks WSPs' creditworthiness by monitoring and enforcing compliance with non-revenue water standards, cost coverage, and labour efficiency. This supports WSPs in improving their financial health, which is critical for accessing commercial finance.

CLSG II: Supporting Recovery and Resilience

The Conditional Liquidity Support Grant Phase II (CLSG II) is a targeted financing initiative aimed at strengthening the Operational Cost Coverage Ratio (OCCR) of 34 (WSPs). Through the implementation of structured Financial Recovery Plans (FRPs), the program focuses on addressing key inefficiencies in billing, revenue collection, and metering, while also expanding access through pipeline extensions.

With a total funding allocation of Khs 2.983 billion, CLSG II supports WSPs in enhancing their overall financial performance. Progress is monitored through regular reporting on revenues and costs.

Between FY 2022/23 and FY 2023/24, the average OCCR among the 34 supported utilities improved from 96% to 99%. As WSPs complete the implementation of planned interventions, further improvements are expected in the next reporting period.

K-WASH: Enhancing water and sanitation services in Kenya

The PforR Program is structured around five interrelated Result Areas that align with the NAWASIP and are designed to enhance water and sanitation service delivery across Kenya. The program includes 11 Disbursement-Linked Indicators (DLIs) tied to measurable outcomes. Under this framework, 19 counties and 33 water utilities receive funding based on verified achievement of specific results throughout the program period. The Result Areas are outlined below:

I. RA 1 – Rural Water Access (US$71.8M):

Supports 19 Counties in adopting long-term water strategies and policies, followed by funding for new and upgraded rural water systems in 17 non-refugee hosting counties. Focus is on sustainability, quality standards, multiple water uses (WASH+), and climate resilience.

RA 2 – Rural Sanitation & Hygiene (US$69.4M):

Expands access to improved sanitation and hygiene facilities in households, schools, and health centres using community-led approaches. Includes menstrual hygiene-friendly WASH infrastructure.

II. RA 3 – WSP Financial Performance (US$43.8M):

This Result Area promotes regulatory compliance, operational efficiency, and financial sustainability of County-owned Water Service Providers (WSPs). It includes blended financing to support commercially viable projects that enhance cost recovery.

It focuses on three Disbursement-Linked Indicators (DLIs):

- **DLI 6:** Ensures WSPs meet legal and regulatory requirements, such as having valid licenses, tariffs, performance contracts with counties, strong board governance, and implementing approved Performance Improvement Action Plans (PIAPs).It focuses on three Disbursement-Linked Indicators (DLIs):
- **DLI 7:** Rewards improvements in financial performance through achieving Operating Cost Coverage Ratio (OCCR) targets.
- **DLI 8:** Encourages WSPs to prepare bankable projects and seek financing from commercial banks.

Eligible WSPs can access up to US$1 million under this Result Area upon meeting compliance and OCCR performance targets during the program period.

III. RA 4 – Sector Reform & M&E (US$5M):

Strengthens policy, coordination, and monitoring frameworks at national and County levels to enhance accountability, investment, and performance reporting in line with SDGs.

IV. RA 5 – WASH for Refugees & Hosts (US$40M):

Promotes integrated WASH services in refugee-hosting areas, supporting the transition to County-led management and adoption of joint refugee-host water utility models.

1.3.2. Capacity Building for Counties and WSP

In line with the Fourth Schedule of the Constitution, which assigns the national government the responsibility for capacity building and technical assistance to counties, WASREB has demonstrated its commitment to strengthening governance in the water sector.

Recognizing that sound governance is the cornerstone of effective service delivery, the regulator organized capacity-building workshops targeting WSPs across various WWDA regions. These sessions prioritized governance alongside other key areas such as tariffs, licensing, and extending services to rural and underserved areas.

The focus on governance aimed to empower the top management teams of WSPs and WWDAs with the tools and knowledge necessary to enhance transparency, accountability, and strategic decision-making. This focus ensures that water service delivery aligns with best practices and meets the needs of the communities it serves.

Continuous capacity building remains vital - not only to address challenges posed by frequent management turnover but also to provide updated knowledge and collect feedback from WSPs. This collaborative approach strengthens governance frameworks and contributes to effective regulatory practices across the sector.

1.3.3. WASREB's Monitoring and Enforcement Framework

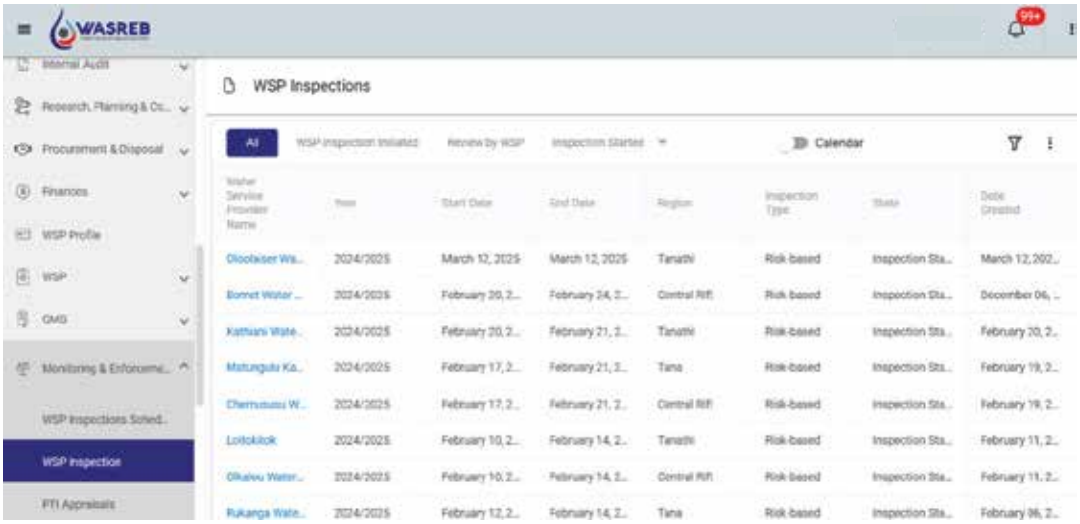
I. Monitoring and Inspection

WASREB regularly oversees WSPs through self-reporting, scheduled and unscheduled surveillance, and targeted risk-based inspections. These inspections—lasting between 2 and 5 days—are undertaken by both internal staff and external part-time inspectors to assess compliance with regulatory standards and identify service gaps. In the 2023-2024 period, WASREB conducted 37 risk-based inspections. These inspections enforce regulatory compliance while upholding principles of professionalism, accountability, and consumer protection.

II. Wasreb Integrated Management Information System (WIMIS)

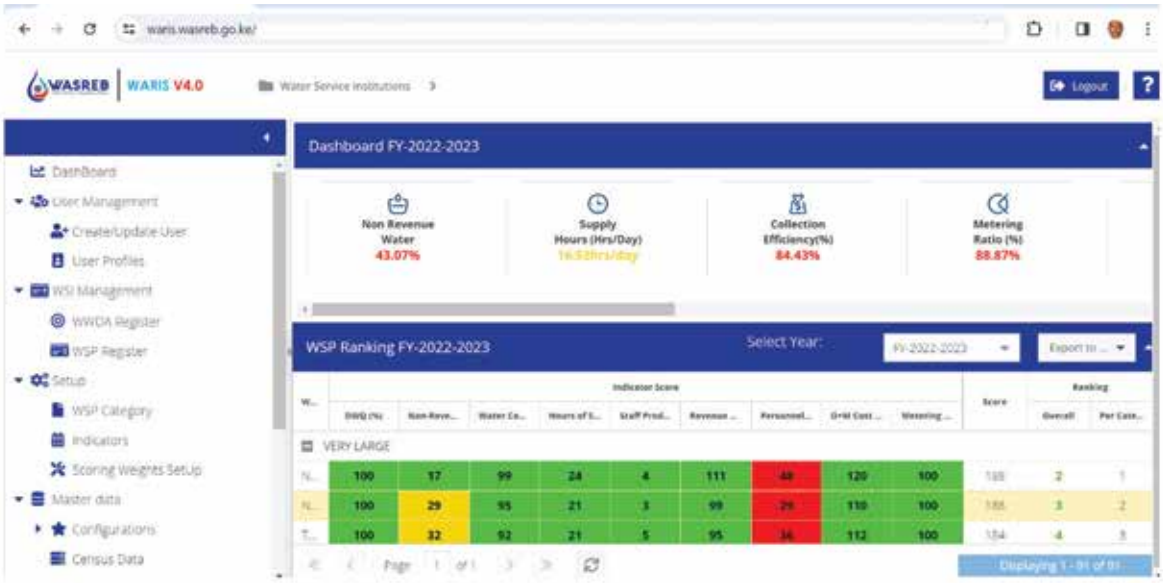
WIMIS is WASREB's digital platform also used to conduct inspections, collect and validate data, and monitor compliance by Water Service Providers. It streamlines regulatory processes, reduces operational costs, and integrates tasks across departments, making inspections and follow-up actions more efficient, coordinated, and Data driven. In addition to enhancing the monitoring and inspection functions. WIMIS also provides addresses the growing need for technological advancement in managing Kenya's water services. It has an array of workspaces tailored to streamline various functions. These include licensing of WSPs, tariff application, human resource management, QMS and internal audits, strategic planning, procurement and disposal, and finances among others.

Each component is designed to bring about a transformative change in how WASREB and its stakeholders manage data, oversee operations, and maintain regulatory compliance.



III. WARIS – Water Regulation Information System

WARIS is a centralized platform that supports performance monitoring and compliance tracking across the water sector. It integrates data from WSPs, Water Works Development Agencies (WWDAs), and County Governments, enabling comparative analysis and informed decision-making. WARIS enhances transparency and supports strategic planning by consolidating sector data on service delivery, infrastructure investments, and institutional performance.

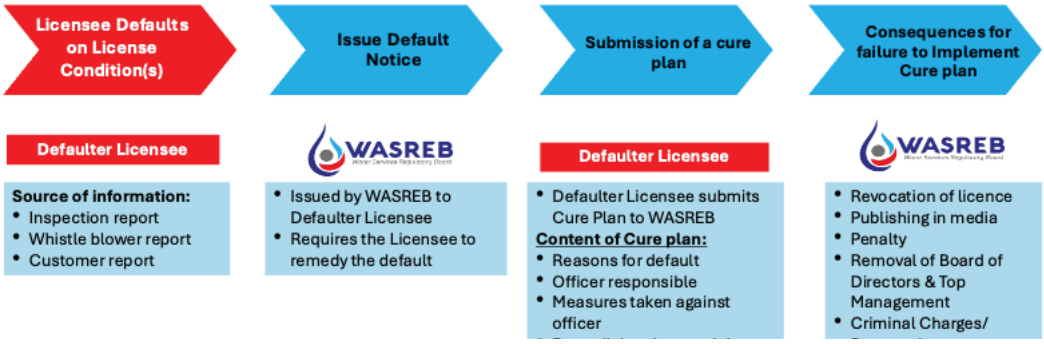


IV. IMPACT – WASREB's Annual Sector Performance Report

IMPACT is WASREB's annual publication that compiles and analyses sector-wide performance data submitted by all licensed WSPs. The report offers a comparative benchmarking tool, highlighting progress, compliance levels, and service delivery trends. Unlike inspections, which are investigative and enforcement-focused, IMPACT relies exclusively on self-reported and validated data submitted through WARIS. The publication promotes transparency and guides sector stakeholders in planning and investment decisions, including policymakers, counties, and development partners.

V. Enforcement and Compliance

WASREB applies a risk-based enforcement approach proportionate to the level of non-compliance. The spectrum of enforcement actions includes advisory notices, warnings, financial penalties, and formal sanctions. WASREB prioritizes corrective engagement and incentivizes good practices. Its enforcement process is grounded in proportionality, fairness, transparency, accountability, and consistency. Water Service Providers have recourse through internal reviews or appeals to the Water Tribunal, ensuring due process in all enforcement actions.



1.3.3. WASREB's Monitoring and Enforcement Framework

WASREB engages the public through various consultation mechanisms, ensuring transparency and accountability in its regulatory decisions. These engagements include open consultations, stakeholder forums, and the use of online platforms such as WIMIS, social media, and other feedback channels. By leveraging these tools, WASREB fosters continuous dialogue with the public, making it easier for community members to share their insights and for the board to respond effectively.

While regulatory independence is essential, it should not be mistaken for isolation. WASREB remains accessible, flexible, and proactive, encouraging petitions and enabling public commentary on proposed actions such as licensing and tariffs. By convening meetings at convenient locations, WASREB demystifies regulatory processes, making them more understandable and approachable for all stakeholders.

Effective regulation, however, requires more than formal participation. WASREB is committed to genuine openness to stakeholder input and reasoned, evidence-based decision-making. The board respects all voices, ensuring that decisions are made transparently and based on solid evidence presented in public forums. This approach builds trust and credibility, demonstrating WASREB's dedication to incorporating the perspectives and experiences of those it serves.

1.4. Technology Adoption

The use of technology is essential to boosting data-driven decision-making, monitoring compliance, and improving the delivery of water services. WSPs are gradually embracing digital transformation to increase productivity, lower water losses, and improve service delivery, but challenges like funding and skills gaps remain. The sector is moving toward smarter, more efficient water management.

1.4.1. Smart Metering

The economic impact of Non-Revenue Water (NRW) within the water sector is substantial. Even after accounting for allowable losses, the remaining non-revenue water amounts to approximately 203 million cubic meters, translating to a financial loss of KSh. 11.9 billion. Digital technologies, especially smart water management systems, present a compelling opportunity to address this challenge by improving water supply systems' efficiency, resilience, and sustainability.

Smart metering plays a critical role in this transformation. By leveraging real-time data and advanced analytics, these systems enable WSPs to detect leaks early, monitor consumption patterns, and optimize operational efficiency. This proactive approach reduces financial losses due to NRW, supports long-term sustainability goals, and enhances customer service through transparency and accountability.

That said, while the benefits of smart metering are evident, their implementation requires careful consideration. WSPs must evaluate the financial viability of such systems, balancing upfront and maintenance costs against potential gains. Smart meters are especially beneficial for production and bulk meters, where accurate data is essential for determining water abstraction volumes and levies payable to the WRA. They are also valuable for large consumers, —such as private clients in affluent areas, —who use water for high-volume luxury purposes like gardening, car washing, and pool maintenance. In these cases, real-time feedback can encourage more responsible consumption.

However, for lower- consumption consumers, the high cost of smart meters—often upwards of KSh. 25,000—may not be economically justified, especially when monthly water bills average just KSh. 1,000. Here, conventional metering may remain the more practical option in the short term.

Smart metering is not a one-size-fits-all solution. Some WSPs have successfully adopted the technology, reduced commercial losses, and enhanced operational oversight through features such as tamper alerts, storage volume monitoring, and daily consumption tracking. Nonetheless, deploying and maintaining these systems demands specialized technical capacity, both in hardware and software, which may currently be beyond the reach of many providers. Staff buy-in and technical training are essential for successful integration.

Ultimately, discretion is key. For WSPs facing multiple, often competing priorities—including service expansion, cost recovery, and system maintenance—the decision to adopt smart metering should be guided by a clear understanding of the local context, consumer profiles, and resource availability. Where applied appropriately, smart metering can be a game-changer, but its rollout should be strategic, targeted, and phased to ensure maximum impact and sustainability.

1.4.2. Adoption of Enhanced Billing Systems

During the reporting period, WASREB noted continued advancements in the adoption and utilization of water billing systems by licensed WSPs across Kenya. These systems are central to effective water resource management, accurate billing, and sustainable revenue collection.

WSPs operate billing systems through which customers are billed based on actual consumption recorded at individual households or other connections. Meter readings are collected manually or through automated meter reading (AMR) technologies, which are increasingly adopted to enhance accuracy and operational efficiency.

Water billing typically follows an increasing block tariff structure, where unit costs escalate with higher usage. This tiered pricing model promotes water conservation and ensures affordability for low-income households, who generally fall within the lowest consumption blocks.

A key trend observed during this reporting cycle is the growing integration of digital tools in billing and customer service. Many utilities now issue bills electronically via SMS or email and accept payments through mobile money platforms such as M-Pesa and banking Apps. These platforms have significantly enhanced payment convenience, increased revenue collection rates, and reduced foot traffic to physical offices.

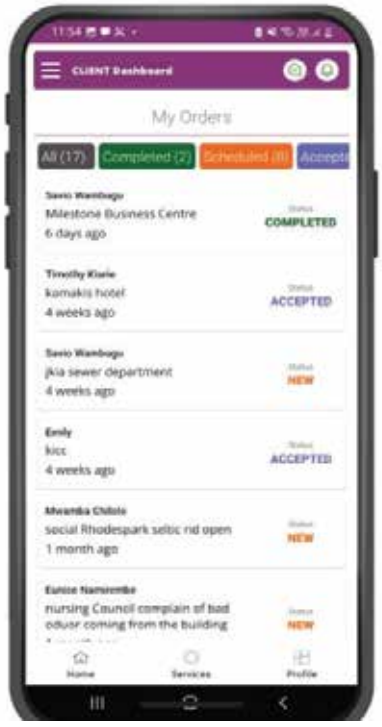
Additionally, for WSPs with limited financial or technical capacity to deploy in-house billing infrastructure, third-party vendors now offer billing systems as a service (SaaS). These outsourced solutions allow smaller or resource-constrained utilities to access modern billing platforms through subscription-based models. Vendors handle system hosting, maintenance, and upgrades, thereby reducing the utility's burden while ensuring compliance with regulatory reporting standards and billing accuracy.

These systems are increasingly integrated with customer relationship management modules, enabling utilities to manage service histories, handle complaints, perform disconnections and reconnections, and flag anomalies such as illegal connections or leaks. The data produced from these platforms is critical for WASREB's monitoring and tracking of utility performance.

Despite these advances, NRW remains a major challenge. WSPs leverage billing data and digital diagnostics to understand better and address water losses caused by physical leaks, theft, or metering inaccuracies.

The continued modernization and expansion of billing systems, including the availability of vendor-provided solutions, is a key enabler in achieving equitable, reliable, and financially sustainable water services across Kenya.

1.4.3. Sanitracker Digital System



Sanitracker is a digital system that allows residents/clients within a WSPs service area to request septic tank cleaning, pit emptying, or wastewater disposal from accredited and licensed sanitation service professionals/providers.

WSPs:

Oversight/Enforcement: Using the Sanitracker system, WSPs can monitor and track non-sewered sanitation operations by service providers and wastewater treatment plants on a dedicated Sanitracker dashboard in real time. Based on service delivery data, WSPs can assess the quality of services provided by service providers and make decisions to improve service delivery.

Dispute Resolution: The system enables WSPs to resolve client complaints and disputes about sanitation services provided by one of its professionals. Licensing: Sanitracker can simplify the licensing process. The utility or municipality can approve licensing requests or add licensing status directly from its centralized dashboard.

RESIDENTS/CLIENTS: OPEN REGISTRATION

The system enables clients to request a service by either selecting from the list of service providers or allowing the system to suggest the nearest service providers.

The system allows clients to review orders (ongoing, scheduled, and completed), view total expenditure, provide details of facilities e.g. septic tanks, toilets, etc., provide feedback and rate service providers, and check the history of jobs and service providers.

Sanitracker does not facilitate direct online payments between clients and service providers. Instead, it calculates the total service cost, leaving the payment arrangements to be handled independently between the client and the service provider.

Developed by the Eastern and Southern Africa Water and Sanitation (ESAWAS) Regulators Association, Sanitracker aims to revolutionize how residents connect with faecal sludge service providers. Sanitracker is a user-friendly platform with an on-demand service model that enables service providers to access a large client base and connect with faecal sludge treatment plants in a service area.

Regulators:

Industry Oversight: Sanitracker's user service data helps regulators and WSPs effectively manage and oversee non-sewered sanitation operations in their respective countries. Access to Country Data: Through a centralized dashboard, regulators can access operational data from multiple WSPs, service providers, and clients.

Accreditation of WSPs: Sanitracker provides regulators with data to accredit service providers, such as WSPs, in accordance with their mandate to guide sanitation service delivery.

With the support of ESAWAS and WSUP, Sanitracker will allow customers to directly request sanitation services from the convenience of their mobile phones.

WASREB identified Nakuru and Kisumu as pilot WSPs , to determine user requirements in the post-rollout phase. WASREB is currently working to onboard the vacuum truck operators.

CHAPTER

02

SECTOR DEVELOPMENT

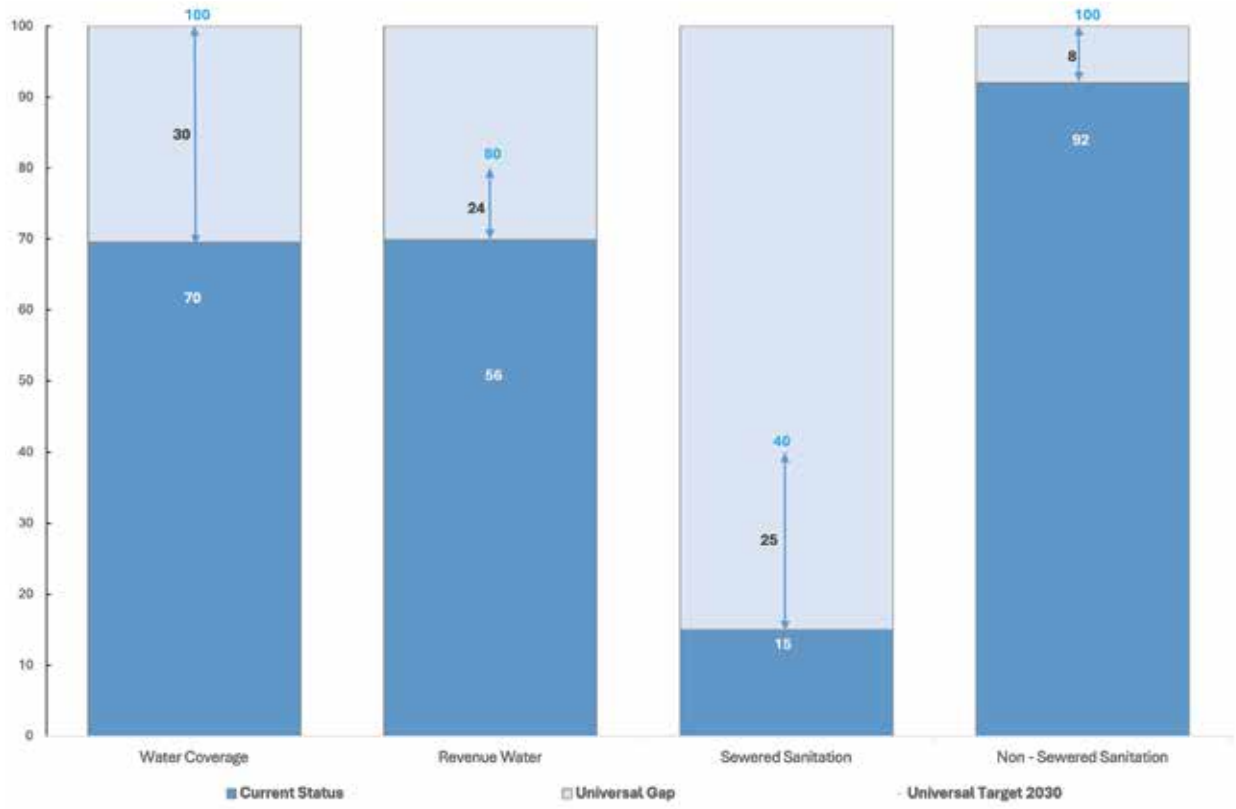
"Improved access signals effective strategies"

The population within the service areas of the 95 regulated WSPs grew by 9.5%, equivalent to 2.68 million people. On the other hand, the population served increased by 17.9% or 3.27 million people. This notable 17.9% growth in service coverage is primarily attributed to contributions from Small-Scale Service Providers (SSSPs) operating within the WSPs' service areas. These providers currently serve 2.78 million people, accounting for 85% of the reported increase in coverage. Excluding the contributions of Small-Scale Service Providers (SSSPs), the number of individuals served increased by 482,582, corresponding to a coverage increase of only 1.56%. This figure remains significantly below the six percentage-point increase required for universal access. To close this gap at the targeted rate within the regulated service areas, the sector must extend services to 530,000 households annually.

The regulator continued identifying alternative operators to address gaps in water service provision. To ensure the sustainability of these operators services, the regulator will maintain the implementation of management models outlined in the guidelines for water services in rural and other underserved areas. A total of 3,257 additional SSSPs were identified within the service areas of regulated WSPs. These SSSPs serve a population of 4,065,931.

Figure 2.1 shows the progress of national goals in three key areas: increasing access, reducing losses, and improving cost recovery, as outlined in the National Water Services Strategy (2025-2030). To facilitate comparison, all four indicators have been standardized to a target of 100%.

Figure 2.1: Status of National Goals, %



During the reporting period, an additional 3.27 million people (17.9%) were brought underwater service coverage, outpacing the 9.5% growth (2.68 million people) in the total population within Water Service Providers (WSPs) service areas. As a result, water coverage improved from 65% to 70%. Water production increased marginally by 1.7%, while turnover rose by 9.1%.

Sewerage service coverage declined from 16% to 15% despite a 7.2% increase (319,299 people) in the number of people served - significantly lower than the 2.68 million increase in the service area population. Similarly, total sanitation coverage declined by one point to 92%.

To meet national targets, policy efforts must focus on accelerating infrastructure expansion, improving service efficiency, and enhancing billing and revenue mechanisms to ensure sustainability while addressing growing demand.

2.1 Access to Water and Sanitation Services

Water coverage in regulated areas improved significantly, primarily due to the contribution of SSSPs, who accounted for 85 % of the additional population served. In contrast, the increase in the population served with sewerage services—319,299 people—represented only 25.8% of the annual target of 1.24 million, indicating a substantial shortfall in progress toward the required growth.

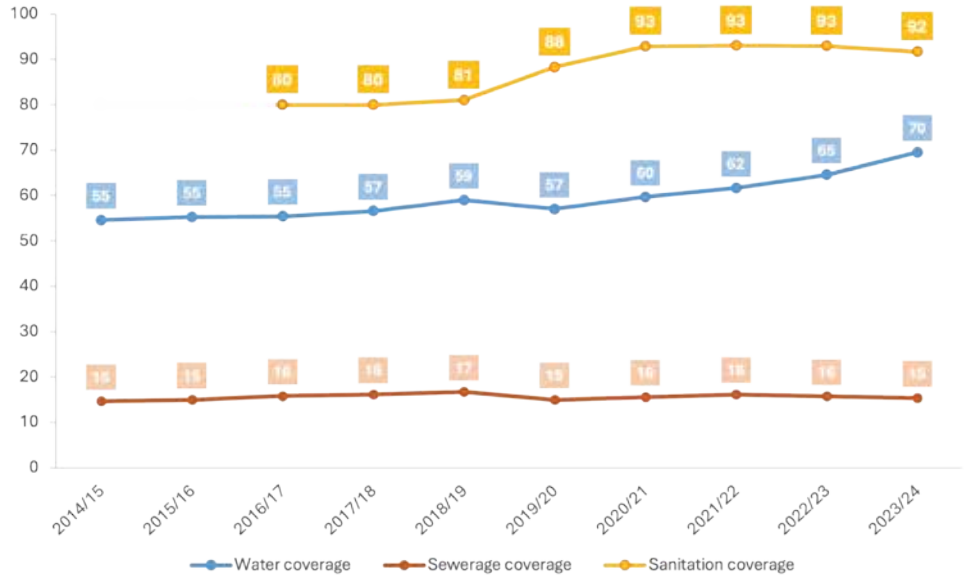
Table 2.1: General Data Summary

Parameter	2022/23	2023/24	Variance, No	Variance, %
Total Population in Service Area	28,266,927	30,943,749	2,676,822	9.5
Total Population Served with Water	18,248,634	21,515,394	3,266,760	17.9
Population Served with Sewer	4,437,279	4,756,578	319,299	7.2
Population Served with Sanitation Services	26,280,303	28,377,696	2,097,393	8.0
Total Water Produced, m^3	453,532,187	461,282,593	7,750,406	1.7
Total Water Billed, m^3	257,995,383	258,030,863	35,480	0.01
Total Water Billed (domestic), m^3	166,030,354	163,134,276	-2,896,078	-1.7
Total Revenue, Kshs	26,448,013,664	28,850,537,096	2,402,523,433	9.1
Per capita production, l/c/d (using full production)	71.2	67.1	-4.1	-5.8
Per capita consumption, l/c/d ***	28.9	26.4	-2.5	-8.5
To no. of connections, water	1,415,656	1,440,369	24,713	1.7
To no. of connections, sewer	389,835	408,904	19,069	4.9

***based on population served directly by WSP and excludes the portion of population served by third party providers

Water production increased by 1.7%, while the billed volume rose slightly by 0.01%. However, domestic billed volume declined by 1.7%. This reduction in billed volume contributed to a decrease in per capita consumption, which fell from 28.9 to 26.4 litres per capita per day (l/c/d).

Figure 2.2: Trend in Water and Sanitation Coverage



2.2 Access to Water and Sanitation Services

NAWASIP estimates that Ksh 995 billion is needed to achieve Water Supply and Sanitation (WSS) goals by 2030. Under a business-as-usual scenario, only Ksh 529 billion would be mobilized, resulting in a funding shortfall of Ksh 466 billion. This gap is expected to be bridged through potential private sector investments of Ksh 395 billion, leaving a financing gap of Ksh 71 billion.

To bridge the financing gap in the water sector, households are expected to contribute Ksh 23 billion over seven years—equivalent to Ksh 3.3 billion annually, or approximately Ksh 106 per capita each year. However, the current Ksh 105 per cubic meter (M^3) tariff falls short of the actual service delivery cost, which stands at Ksh 114/M^3. This shortfall undermines service sustainability and the ability to invest in system improvements.

Sector analysis shows that, on average, Water Service Providers (WSPs) must recover at least 110% of their costs to sustain current service levels. However, the current average cost coverage stands at only 98%.

To bridge this gap, two main options are available:

- Increase Tariffs: To achieve full cost recovery, the average tariff would need to rise by Kshs 21/m^3, from the current Ksh 105/m^3 to Ksh 126/m^3.
- Improve Efficiency: Alternatively, utilities could attain equivalent financial gains by reducing Non-Revenue Water (NRW) from the current average of 44% to 37%, thus saving Ksh 19/m^3.

When the annual household financing requirement is also considered, this adds Ksh 12.8/m^3. This brings the total required tariff to approximately Ksh 138.8/m^3 or a further reduction in NRW to around 33% would be required to avoid additional tariff increases.

Despite these adjustments, the level of per capita investment in the sector remains relatively low compared to other African countries.

Monitoring and reporting on county-level allocations to water supply and sanitation (WSS) is imperative to effectively track progress toward sector goals. In addition, county funding mechanisms need to be streamlined and harmonized to enhance efficiency, accountability, and alignment with national sector priorities.

Achieving long-term sustainability and improved service delivery requires a deliberate policy shift toward cost-reflective tariffs and greater household involvement in sector financing. Strengthening self-financing mechanisms is, therefore, a critical first step in narrowing the existing investment gap.

2.3 Efficiency in water and sanitation services provision

Efficiency in water and sanitation services (WSS) provision is driven by institutional, technical, financial, and governance factors. The reforms undertaken over the past two decades were designed to clarify the roles and responsibilities between national and county governments while promoting water service providers' managerial and financial autonomy.

Improving operational efficiency in service providers requires targeted interventions. Priority should be given to reducing Non-Revenue Water (NRW) towards the sector benchmark of 25% by Strengthening asset management practices. This would call for timely repairs and infrastructure renewal to lower long-term operational costs. Enhancing energy efficiency, including adopting renewable energy solutions, can significantly reduce expenditure on energy-intensive processes. Finally, investing in digital technologies such as smart meters and GIS supports real-time system management would enhance efficiency.

Strengthening financial management is another critical facet of ensuring sustainable service delivery. This involves adopting cost-reflective, tariffs that balance affordability with full cost recovery while improving billing and revenue collection systems to ensure timely payments and minimize financial losses. Strategic investment planning, focused on high-impact and cost-effective projects, optimizes resource allocation and supports long-term sector viability.

A skilled and competent workforce is central to achieving high performance, with expertise across technical, managerial, and financial domains driving operational efficiency. Strong incentive and performance management systems encourage a results-oriented culture, ensuring recognition of excellence and accountability. Continuous training and capacity development are essential to keeping staff current with evolving technologies and policies, fostering long-term growth and adaptability in the sector.

2.4 Performance of WSPs

Robust performance monitoring is essential for informed policymaking, improved service delivery, and strengthened accountability between WSPs and the public. It forms a critical pillar of transparent, evidence-based governance in the water and sanitation sector.

Performance monitoring is vital to ensuring sustainable water and sanitation services. It helps track Key Performance Indicators (KPIs), allowing early detection and response when issues arise.

It also supports financial sustainability by identifying inefficiencies such as high levels of non-revenue water or poor billing practices. WSPs that monitor their performance can plug financial leaks and better manage resources.

Regular performance reporting enhances transparency and accountability, particularly when data is openly shared with regulators and the public. The Annual Performance Report showcases high-performing WSPs and encourages sector-wide improvement.

Performance monitoring is a critical tool for evidence-based policymaking and strategic investment planning. Identifying effective practices and revealing service delivery gaps enables targeted resource allocation and programmatic interventions. Moreover, it contributes directly to achieving global commitments, such as Sustainable Development Goal 6, by systematically tracking progress toward universal access to water and sanitation and highlighting areas requiring urgent policy attention.

Performance ranking based on performance indicators fosters a spirit of healthy competition, motivating WSPs to strive for better results.

As in previous years, WSPs were assessed using nine Key Performance Indicators (KPIs), and national performance, as outlined in Table 2.2.

Table 2.2: Progress on Key Performance Indicators

KEY PERFORMANCE INDICATORS	2021/22	2022/23	Trend	2023/24	Trend
Water Coverage, %	62	65	↑	70	↑
Drinking Water Quality, %	95	90	↓	89	↓
Hours of Supply, hrs/day	17	17	→	18	↑
Non- Revenue Water, %	45	43	↑	44	↓
Metering Ratio, %	95	97	↑	97	→
Staff Productivity, No. per 1000 Connections	7	7	→	7	→
Personnel Expenditure as % of O+M Costs, %	47	48	↓	47	↑
Revenue Collection Efficiency, %	95	93	↓	95	↑
O+M Cost Coverage, %	96	95	↓	98	↑
Sewered Sanitation Coverage, % *	16	16	→	15	↓
Sanitation Coverage, % *	93	93	→	92	↓

** not used for ranking* Good Acceptable Not Acceptable Benchmark Varies

The regulator has introduced a composite Key Performance Indicator (KPI) to track progress in sanitation service delivery. This KPI incorporates sewered and non-sewered sanitation solutions to encourage greater utility engagement in comprehensive sanitation management. The approach has been piloted in 10 WSPs, with the outcomes detailed in Section 3.6.5.

From Table 2.2, five indicators showed improvement in the current reporting period, down from eight in the previous cycle. Two indicators remained unchanged, compared to one previously, while four declined, up from two in the last period. Overall, this reflects a downward trend in performance compared to the previous reporting period.

2.5 Utility Ranking

The performance framework, detailed in Section 3.6, sets a maximum achievable score of 200 points for a utility. Based on this evaluation, Nyeri was ranked as the top utility with 168 points, followed by Nakuru and Nanyuki with scores of 167 and 163, respectively. Nyeri scored two points higher than Nakuru's highest score in the previous period. Oloitokitok ranked the lowest with 6 points, followed by Tana with 8 points, and Samburu was third from the bottom with 9 points. Overall, the average performance improved marginally from 44% to 45% in the current period.

Table 2.3 provides an overview of the top and bottom 10 WSPs.

Table 2.3: Overall Top and Bottom 10 WSPs

TOP TEN UTILITIES 2023/24		
Rank	Utility	Score (Max 200)
1	Nyeri	168
2	Nakuru Urban	167
3	Nanyuki	163
4	Murang'a Urban	155
5	Isiolo	154
6	Thika	151
7	Kisumu	150
8	Ruiru-Juja	145
9	Ngandori Nginda	145
10	Meru	143

BOTTOM TEN UTILITIES 2023/24		
Rank	Utility	Score (Max 200)
81	Kapenguria	33
82	Nol Turesh	27
83	Turkana Urban	22
84	Wajir	21
85	Bomet	15
86	Tuuru	14
87	Elwak	12
88	Samburu	9
89	Tana	8
90	Oloitokitok	6

Water Service providers are vital in delivering safe, reliable, and sustainable services. While annual reporting offers a snapshot of utility performance, tracking performance over time provides a deeper and more strategic view of sector progress. It enables stakeholders to assess the effectiveness of interventions, identify persistent challenges, and adjust approaches accordingly.

Long-term monitoring also strengthens accountability by highlighting both consistent performers and WSPs that may require regulatory intervention or targeted support.

In recognition of these benefits, the regulator has institutionalized the assessment of utility performance over time. This approach is key to improving sector governance, driving service improvements, and advancing the goal of universal and sustainable access to water and sanitation.

Utility performance is evaluated over consecutive reporting periods to promote and recognize consistent performance in the sector. This approach ensures that improvements are not isolated but reflect sustained efforts toward better service delivery. A utility is considered to have achieved sustained improvement if it demonstrates a positive performance trend across two successive years, specifically, the 2021/22 and 2022/23 reporting periods.

In addition to showing an upward trajectory, the utility must attain a minimum performance score above 50% in both periods. This dual criterion ensures consistent improvements and meets a minimum service quality threshold. By setting these standards, the framework encourages long-term performance gains, reinforces accountability, and supports the broader policy objective of achieving reliable and sustainable water and sanitation services.

Table 2.4: Top Improvers & Bottom Losers

TOP IMPROVERS				
	WSP	Score 2022/23	Score 2023/24	Variance
1	Naivasha	122	139	17
2	Ngandori Nginda	135	145	10
3	Murang'a South	119	129	10
4	Kapsabet Nandi	103	110	7
5	Murang'a West	108	115	7
6	Naromoru	106	111	5
7	Kisumu	148	150	2
8	Nyasare	114	116	2
9	Rukanga	134	136	2
10	Nakuru Urban	166	167	1

BOTTOM LOSERS				
	WSP	Score 2022/23	Score 2023/24	Variance
81	Mwala	56	42	-14
82	Tana	23	8	-15
83	Mathira	128	112	-16
84	Garissa	62	45	-17
85	Githunguri	109	92	-17
86	Murugi Mugumango	101	82	-19
87	Tachasis	132	112	-20
88	Mandera	56	35	-21
89	Kibwezi Makindu	77	54	-23
90	Nol Turesh	55	27	-28

Naivasha emerged as the most improved utility during the reporting period, followed by Ngandori Nginda and Murang'a South. On the other hand, Nol Turesh, Kibwezi Makindu, and Mandera recorded the greatest performance declines, respectively.

2.6 Regional Benchmarking

Benchmarking the performance of the largest WSPs within a country is often constrained by the lack of comparable peers. Sometimes, a country may have only one utility, limiting opportunities for meaningful intra-national comparison. This presents a challenge in assessing relative performance and identifying best practices.

Regional benchmarking is critical in addressing this gap, particularly for large WSPs or those operating as sole providers in their respective countries. While acknowledging the differences in operating environments across countries, benchmarking against similarly sized regional sized WSPs offers valuable insights. It enables regulators and WSPs to draw lessons from comparable contexts, fostering performance improvement through shared experiences, innovations, and best practices.

The regional benchmarking initiative focuses exclusively on participating countries' largest or sole national WSPs. This approach enables meaningful comparison among similarly scaled entities, especially where domestic benchmarking is limited due to the absence of comparable peers.

Participation in the benchmarking exercise expanded from nine WSPs in the 2021/2022 period to eleven in 2022/2023, following the inclusion of Régie de Production et de Distribution d'Eau et d'Électricité (REGIDESO) of Burundi and Empresa Pública de Águas de Luanda (EPAL) of Angola.

The eleven WSPs featured in the 2022/2023 benchmarking exercise are:

- Nairobi City Water and Sewerage Company (NCW&SC) – Kenya
- Lusaka Water and Sanitation Company (LWSC) – Zambia
- Dar es Salaam Water and Sanitation Authority (DAWASA) – Tanzania
- Águas da Região Metropolitana de Maputo (AdRMM) – Mozambique
- Water and Sewerage Company (WASCO) – Lesotho
- Water and Sanitation Corporation Ltd (WASAC) – Rwanda
- Régie de Production et de Distribution d'Eau et d'Électricité (REGIDESO) – Burundi
- Zanzibar Water Authority (ZAWA) – Zanzibar
- National Water and Sewerage Corporation (NWSC) – Uganda
- Lilongwe Water Board (LWB) – Malawi
- Empresa Pública de Águas de Luanda (EPAL) – Angola

This expanded participation strengthens the regional benchmarking framework, offering a broader platform for knowledge exchange and comparative analysis to drive performance improvement across the water and sanitation sector.

The performance analysis of the eleven WSPs using the ten selected KPIs is summarized in Table 2.5.

Table 2.5: Regional Performance of the Largest WSPs in the Ten KPIs

	KPI	NCW&SC	LWSC	DAWASA	AdRMM	WASCO	WASAC	REGIDESO	ZAWA	NWSC	LWB	EPAL
Quality of Services	Water Coverage [10]	82%	95%	75%	43%	59%	75%	66%	89%	78%	91%	34%
	Sewerage Coverage [5]	49%	17%	12%	-	4%	-	7%	13%	15%	3%	-
	Water Quality [15]	98%	90%	100%	100%	73%	100%	83%	92%	100%	100%	-
	Hours of Supply [10]	7	17	19	15	18	21	12	14	18	20	5
Economic Efficiency	O&M Cost Coverage [10]	100%	90%	84%	111%	37%	186%	17%	75%	129%	154%	106%
	Collection Efficiency [15]	90%	92%	98%	77%	102%	103%	282%	87%	91%	92%	68%
	Staff Cost vs O&M Costs [5]	61%	39%	36%	30%	21%	47%	7%	33%	42%	43%	74%
Operational Sustainability	Staff/1,000 W&S Connections [5]	7.0	3.8	3.6	3.7	3.7	4.7	4.4	1.8	5.0	4.9	3.2
	Metering Ratio [10]	100%	68%	100%	79%	100%	100%	100%	21%	100%	100%	24%
	NRW [15]	47%	57%	41%	47%	58%	44%	47%	31%	35%	42%	72%

The benchmarking exercise also included a comparative analysis of the best-performing WSPs within each participating country to promote continuous improvement and guard against complacency. This approach aims to highlight excellence at the national level and encourage peer learning among high-performing institutions.

However, data was available for only five WSPs during this reporting cycle. These are:

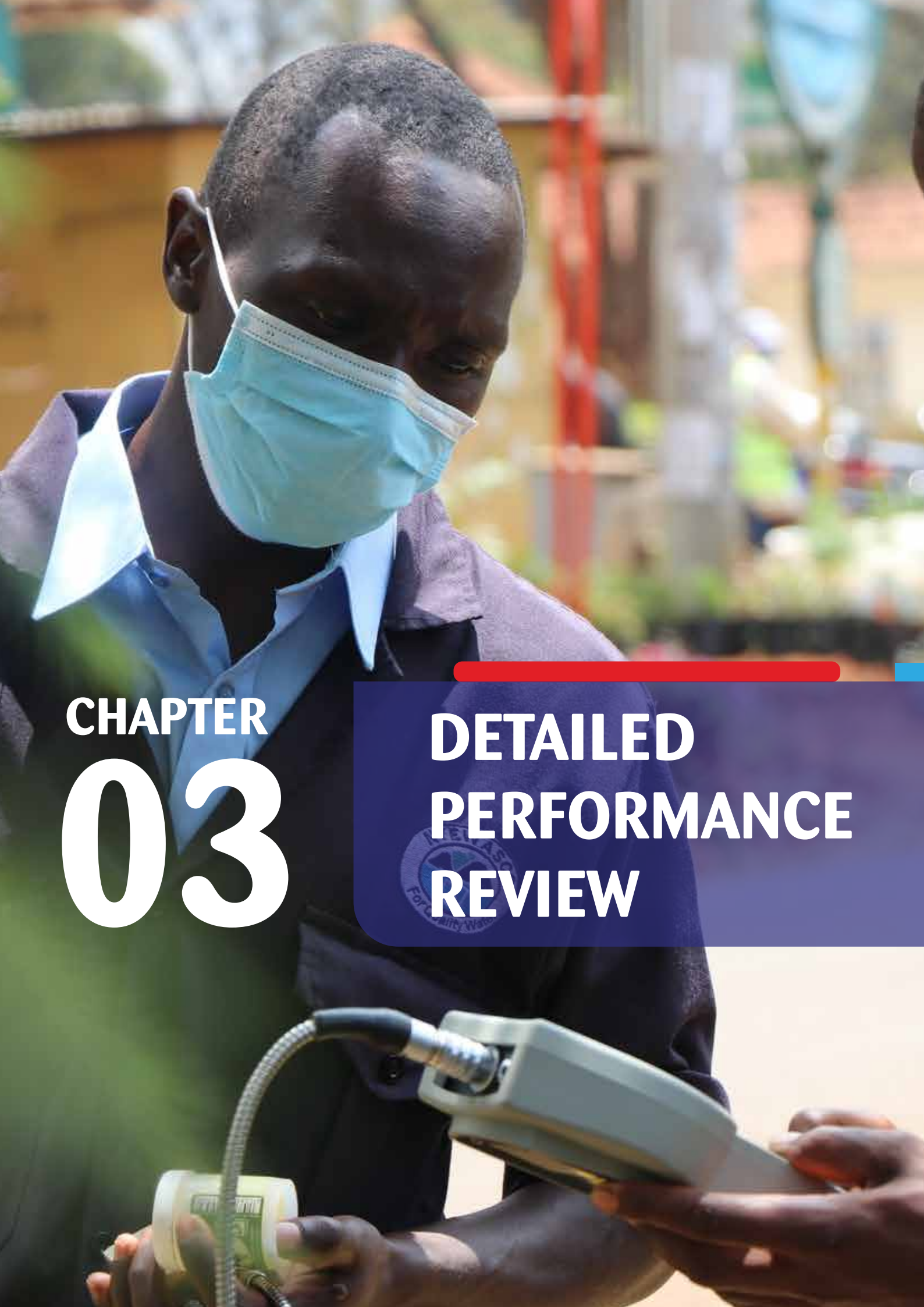
- Nakuru Water and Sanitation Services Company – Kenya
- Southern Water and Sewerage Company (Southern WSC) – Zambia
- Iringa Urban Water Supply and Sanitation Authority (Iringa WSSA) – Tanzania
- Lilongwe Water Board (LWB) – Malawi
- Water and Sanitation Corporation Ltd (WASAC) – Rwanda

The performance of these WSPs is presented below in descending order, providing a snapshot of leading practices across the region.

Table 2.6: Regional Performance of the Best WSPs based on Ten KPIs

Utility	Quality of Services				Economic Efficiency			Operational Sustainability		
	Water Coverage [10]	Sewerage Coverage [5]	Water Quality [15]	Hours of Supply [10]	O&M Coverage [10]	Collection Efficiency [15]	Staff Cost as a % of O&M Cost [5]	Staff/1,000 W&S Connections [5]	NRW [15]	Metering ratio [10]
	%	%	%	Hours/ day	%	Ratio	%	Ratio	%	%
Nakuru WSP, Kenya	95%	25%	100%	21	110%	98%	29%	2.6	29%	100%
Southern WSC, Zambia	95%	19%	99%	21	90%	98%	48%	4.9	45%	98%
Iringa WSSA, Tanzania	91%	7%	95%	21	86%	97%	27%	3.1	25%	100%
Lilongwe WB, Malawi	91%	3%	100%	20	154%	92%	43%	4.9	42%	100%
WASAC, Rwanda	75%	N/A	100%	21	186%	103%	47%	4.7	44%	100%

During the reporting period, Nakuru Water and Sanitation Services Company from Kenya emerged as the best-performing utility in the region.



CHAPTER

03

DETAILED PERFORMANCE REVIEW

3.1 Introduction

Performance assessment of WSPs ensures that the regulator reports annually to the public on water supply and sewerage services issues. WASREB continues to do this through the KPI assessments, after which the WSPs are ranked. Effective performance assessment requires a strong focus on measurement and continuous improvement.

3.2 Are We Able to Maintain the Benefits of the gains?

Sustainability of Tariffs

With the tariff guidelines revised to include effective performance assessment, a strong focus on measurement and continuous improvement is critical. WSPs continue to implement justified tariffs, with an increase from 22 to 40 within the last and current reporting periods.

This not only reduced dependence on subsidies but also enabled WSPs to adopt sustainable tariffs that factor in current price changes.

Sustainability of Wastewater

While sanitation is largely a devolved function managed by county governments, WASREB aims to ensure that sanitation services meet national standards and deliver safe, equitable outcomes. Accurate, timely, and reliable information is critical to this. WASREB has developed a sanitation indicator for monitoring WSPs and tracking the progress made in attaining global, regional, national, and local sanitation targets. The results of the pilot of this Sanitation KPI are presented in this report.

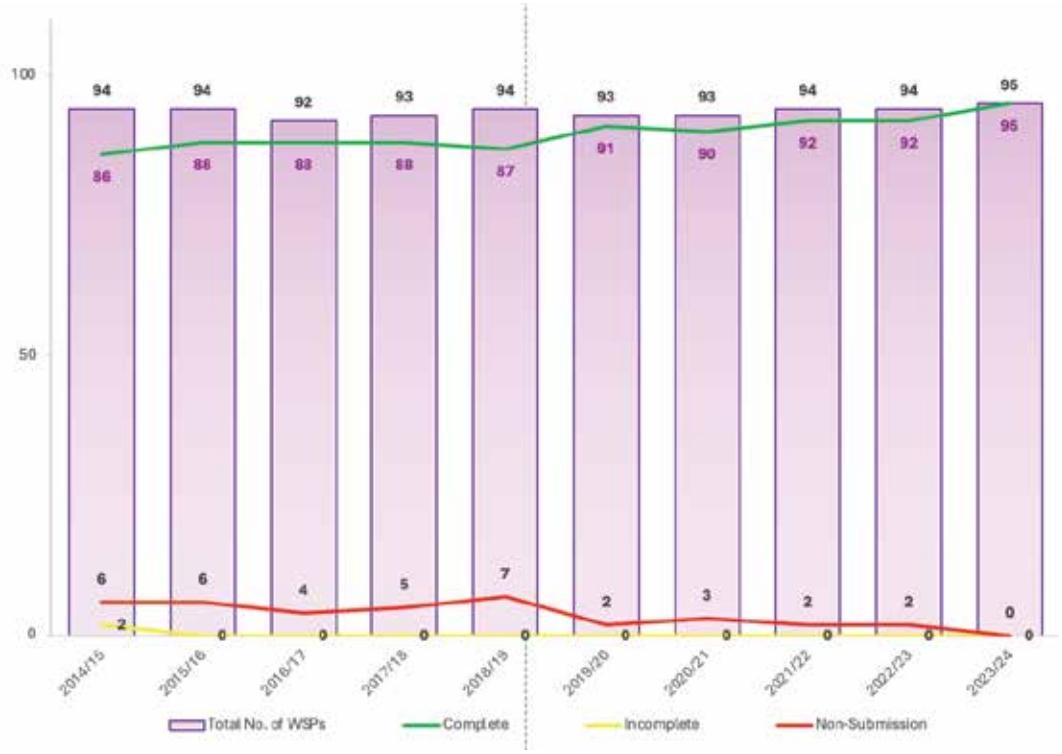
3.3 Ensuring Data Accuracy and Compliance in Reporting

During the period under review, ninety-one (91) public and four (4) private WSPs submitted data; this denotes 100% compliance with reporting. In the current period, the additional WSPs were Lodwar, Oloitokitok, and Namanga, who submitted their data following non-reporting during the previous reporting periods.

Status of data submission	No. of Utilities
Complete	95
Incomplete	0
Non-Submission	0
Total No. of WSPs	95

There was a noted improvement in the quality of data submitted by WSPs, with only one data set identified as non-credible after validation. Despite the improvement in data consistency, WSPs are continuously urged to enhance their data management practices, which will ultimately improve service delivery through informed decision-making based on accurate data.

Figure 3.1: Trend in Data Submission by WSPs



WASREB will continue to enhance the data validation process coupled with frequent reporting.

Table 3.1 presents the general data for the different WSPs evaluated.

Table 3.1: General Data on WSPs 2023/24

PARAMETER / UTILITY	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 in m^3 (000)	Domestic + Kiosks billed volume in m^3 (000)	Total billed volume in m^3 (000)	Non-Revenue Water (%)	Production per capita (l/c/d)	Consumption per capita (l/c/d)	No. of Total Staff	Overall Compliance
Very Large (≥35,000 connections)														
Nairobi	5,232,575	4,151,848	446,964	442,203	1	11,322	185,822	52,769	95,761	48	123	35	2,930	Non-Compliant
Eldoret	511,602	424,671	109,969	100,128	1	843	15,361	6,556	9,648	37	99	42	422	Compliant
Mombasa	1,348,932	940,903	91,481	42,396	1	1,042	12,543	4,092	5,648	55	37	12	327	Non-Compliant
Nyeri	155,815	192,725	72,322	56,010	1	653	7,412	4,365	6,267	15	105	62	243	Compliant
Nzoia	858,446	406,732	69,310	45,072	5	385	8,016	3,958	4,659	42	54	27	263	Non-Compliant
Nakuru Urban	595,605	550,778	68,124	64,559	1	1,152	12,114	6,073	8,974	26	60	30	167	Compliant
Ruiru-Juja	583,727	554,024	62,897	60,393	2	1,209	17,137	7,966	9,552	44	85	39	324	Compliant
Kisumu	494,063	460,403	62,467	62,389	1	1,105	11,919	3,969	7,505	37	71	24	298	Non-Compliant
Thika	368,312	337,785	62,262	57,673	1	1,014	15,051	6,130	9,604	36	122	50	277	Compliant
Murang'a South	481,000	360,944	55,023	38,154	1	276	4,649	2,133	2,783	40	35	16	170	Non-Compliant
Embu	240,899	199,777	49,562	44,406	1	415	7,014	3,302	4,587	35	96	45	226	Compliant
Kilifi Mariakani	1,049,197	666,400	48,497	36,520	3	614	9,743	3,819	4,951	49	40	16	265	Non-Compliant
Gatundu	328,416	241,615	45,481	31,669	1	125	3,906	2,477	2,620	33	44	28	145	Non-Compliant
Kirinyaga	527,234	341,465	43,918	33,443	9	179	5,302	1,927	2,524	52	43	15	162	Non-Compliant
Kakamega Urban	442,769	434,839	43,367	40,489	2	361	4,737	2,100	2,994	37	30	13	168	Non-Compliant
Malindi	579,296	422,596	43,105	27,393	1	672	6,185	4,092	4,887	21	40	27	219	Non-Compliant
Kericho	429,139	157,024	39,817	28,677	2	231	4,799	1,473	2,029	58	84	26	204	Non-Compliant
Othaya Mukurweini	186,706	90,089	38,495	24,336	2	197	5,861	2,568	3,223	45	178	78	134	Non-Compliant
Large (10,000-34,999 connections)														
Nakuru Rural	1,172,769	874,964	33,318	20,847	6	383	7,483	2,295	4,234	43	23	7	127	Non-Compliant
Tavevo	378,610	229,983	32,398	19,830	3	395	6,156	2,433	3,095	50	73	29	252	Non-Compliant
Murang'a Urban	119,774	114,572	31,992	28,717	1	317	3,698	1,720	2,557	31	88	41	132	Non-Compliant
Mathira	156,786	100,619	31,500	20,430	1	175	2,066	1,070	1,317	36	56	29	76	Non-Compliant
Gusii	874,269	415,337	31,449	28,859	7	237	3,728	871	1,345	64	25	6	156	Non-Compliant
Nanyuki	132,931	125,629	30,374	29,913	1	382	4,053	1,682	2,917	28	88	37	134	Compliant
Murang'a West	157,646	81,597	28,454	16,167	1	97	2,547	962	1,373	46	86	32	83	Compliant
Nyahururu	122,726	111,612	25,336	23,548	2	254	3,215	1,060	1,961	39	79	26	152	Non-Compliant
Kwale	702,105	256,309	22,970	14,124	1	200	4,099	1,414	2,032	50	44	15	145	Non-Compliant
Meru	172,869	132,998	21,980	17,153	1	250	3,390	2,011	2,725	20	70	41	122	Compliant
Bomet	448,823	52,533	21,592	8,813	1	78	2,284	426	881	61	119	22	178	Non-Compliant
Sibo	582,797	361,065	19,764	16,239	5	147	2,509	891	1,139	55	19	7	126	Non-Compliant
Ngandori Nginda	88,124	78,816	19,613	18,618	1	95	2,340	1,343	1,613	31	81	47	76	Non-Compliant
Kitui	408,972	314,807	19,430	10,755	1	139	2,651	969	1,353	49	23	8	111	Compliant
Kikuyu	453,238	365,711	19,158	10,826	1	148	2,739	1,172	1,707	38	21	9	97	Non-Compliant
Nithi	151,339	88,501	18,933	13,422	1	80	3,298	838	1,441	56	102	26	82	Non-Compliant
Tetu Aberdare	77,366	71,841	18,327	12,832	1	69	2,270	1,411	1,474	35	87	54	70	Non-Compliant
Mavoko	362,131	192,522	17,703	15,981	1	227	1,394	473	897	36	20	7	94	Non-Compliant
Garissa	149,506	96,435	16,007	15,931	1	305	5,649	1,511	2,943	48	160	43	193	Non-Compliant
Isiolo	88,023	80,840	15,195	14,444	1	110	1,705	976	1,202	29	58	33	64	Non-Compliant
Gatamathi	132,436	104,013	14,506	11,130	1	74	3,253	1,062	1,343	59	86	28	70	Non-Compliant
Kiambu	158,713	130,470	14,481	12,226	1	306	3,430	1,800	2,344	32	72	38	78	Non-Compliant
Gatanga	187,904	61,800	13,956	10,801	1	61	1,712	851	1,149	33	76	38	90	Non-Compliant
Limuru	301,674	240,512	13,658	13,054	1	182	1,939	847	1,307	33	22	10	94	Non-Compliant
Naivasha	400,189	363,665	13,448	11,708	1	216	2,218	1,134	1,668	25	17	9	78	Non-Compliant
Oloolaiser	445,380	355,731	11,997	7,016	5	120	1,773	915	1,046	41	14	7	120	Non-Compliant
Ngagaka	85,104	62,342	11,909	8,479	1	42	1,213	672	787	35	53	30	40	Non-Compliant
Githunguri	230,947	51,281	11,782	9,186	1	55	1,462	400	535	63	78	21	45	Non-Compliant
Turkana Urban	98,945	64,576	11,748	11,448	1	63	2,502	517	1,105	56	106	22	99	Non-Compliant
Homabay	315,096	199,746	11,746	8,912	1	83	1,000	398	567	43	14	5	103	Non-Compliant
Amatsi	590,091	40,199	11,562	5,830	1	68	1,988	380	1,096	45	135	26	101	Non-Compliant
Meru Rural	146,185	122,256	11,541	6,534	1	52	1,254	628	799	36	28	14	105	Non-Compliant
Karuri	267,132	186,318	11,470	7,982	1	101	1,409	687	951	33	21	10	61	Non-Compliant
Busia	367,622	41,619	11,467	7,291	3	49	452	197	252	44	30	13	89	Non-Compliant
Machakos	252,274	167,455	11,105	7,291	1	90	798	491	584	27	13	8	63	Non-Compliant
Kyeni	95,910	13,898	11,007	4,254	1	16	676	192	467	31	133	38	25	Non-Compliant
Kiambere Mwingi	182,580	107,949	4,996	4,752	2	69	579	262	366	37	15	7	42	Non-Compliant
Kibwezi Makindu	295,141	148,796	10,211	6,574	1	85	2,230	702	940	58	41	13	92	Non-Compliant
Medium (5,000-9,999 connections)														
Tuuru	285,050	14,374	9,690	2,831	1	28	1,632	454	588	64	311	86	112	Non-Compliant
Nyandarua	115,549	67,814	9,590	5,481	1	54	793	414	462	42	32	17	70	Non-Compliant
Migori	394,156	100,729	8,178	4,932	7	26	759	359	423	44	21	10	74	Non-Compliant
Narok	134,516	105,427	8,123	7,904	1	138	1,217	436	817	33	32	11	87	Non-Compliant
Samburu	361,093	81,389	7,920	6,471	6	24	403	211	241	40	14	7	103	Non-Compliant
Embe	47,568	36,778	7,906	3,839	1	30	939	323	435	54	70	24	36	Non-Compliant
Nol Turesh	250,001	31,928	7,838	5,958	1	47	2,089	531	663	68	179	46	54	Non-Compliant
Tana	125,629	39,904	7,267	4,609	3	35	1,038	225	363	65	71	15	73	Non-Compliant
Chemususu	122,472	26,451	6,323	3,067	1	37	1,861	472	632	66	193	49	49	Non-Compliant
Kapsabet Nandi	101,707	37,334	6,227	4,774	2	83	1,203	445	741	38	88	33	36	Non-Compliant
Kirandich	53,230	15,964	5,938	4,101	1	32	1,402	488	579	59	241	84	30	Non-Compliant
Murugi Mugumango	33,885	20,103	5,870	4,763	1	19	3,625	1,872	1,928	47	494	255	26	Non-Compliant
Lamu	39,238	28,889	5,092	2,955	2	22	497	198	229	54	47	19	71	Non-Compliant
Small (<5,000 connections)														
Iten Tambach	88,778	15,166	4,619	2,611	1	36	726	303	498	31	131	55	46	Non-Compliant
Kakamega Rural	832,415	19,717	4,568	3,420	-	19	420	258	277	34	58	36	50	Non-Compliant
Mandera	136,819	28,266	4,346	1,241	1	19	852	214	451	47	83	21	103	Non-Compliant
Ol Kalou	137,989	54,248	4,035	3,278	1	46	583	285	379	35	29	14	44	Non-Compliant
Olkejuado	185,124	32,221	3,783	516	1	20	148	84	112	24	13	7	29	Non-Compliant
Kapenguria	172,437	9,890	3,772	1,306	1	17	494	194	277	44	137	54	64	Non-Compliant
Muthambi 4K	19,295	7,635	3,493	2,208	1	9	729	447	501	31	262	160	14	Non-Compliant
Wote	155,467	88,952	2,949	1,963	1	31	342	103	229	33	11	3	38	Non-Compliant
Naromoru	19,860	17,246	2,772	2,604	1	16	324	155	240	26	51	25	25	Non-Compliant
Elwak	119,810	13,092	2,613	1,558	3	7	111	58	62	44	23	12	47	Non-Compliant
Oloitokitok	74,706	14,629	2,565	1,538	1	12	255	93	93	64	48	17	48	Non-Compliant
Rukanga	9,284	5,252	2,538	1,905	1	13	277	184	213	23	144	96	15	Non-Compliant
Namanga	19,863	5,868	2,227	1,249	1	12	312	228	233	25	146	106	13	Non-Compliant
Yatta	154,193	105,366	2,111	1,812	1	28	270	154	184	32	7	4	26	Non-Compliant
Tatu City	1,656	2,914	1,930	1,930	-	158	602	114	589	2	566	107	9	Non-Compliant
Kiamumbi	18,948	18,516	1,909	1,776	1	21	416	280	311	25	62	41	10	Non-Compliant
Wajir	192,213	14,167	1,899	1,747	1	15	237	74	83	65	46	14	249	Non-Compliant
Matungulu Kangundo	250,034	6,644	1,895	1,015	3	14	137	53	97	30	57	22	11	Non-Compliant
Nyasare	29,699	21,927	1,402	949	1	8	140	70	89	36	17	9	8	Non-Compliant
Tachasis	31,564	20,454	1,360	1,325	1	3	377	245	288	23	50	33	13	Non-Compliant
Runda	14,462	14,452	1,317	1,262	-	86	865	693	699	19	164	131	24	Non-Compliant
Kathiani	24,270	17,732	1,231	610	1	11	104	50	83	20	16	8	25	Non-Compliant
Mwala	102,811	22,308	1,185	401	4	5	35	17	26	27	4	2	16	Non-Compliant
Two Rivers	868	867	983	821	-	38	134	10	124	8	424	33	18	Compliant
Mbooni	139,751	4,828	976	421	1	3	56	28	31	45	32	16	20	Non-Compliant
Marsabit	179,479	17,839	301	295	1	15	148	15	36	75	23	2	46	Non-Compliant
Small Scale Service Providers														
SSSPs within the Service areas	-	2,784,178	-	-	-	-	-	-	-	-	-	-	-	-
Totals/Averages	**30,943,749**	**21,515,394**	**2,299,885**	**1,849,273**	**156**	**28,851**	**461,285**	**168,270**	**258,031**	**44**	**59**	**21**	**12,641**	**-**

The 95 WSPs covered by this report serve a population of 21.5 million people out of a total of 30.9 million within their service areas. This population incudes the small-scale service providers who cover approximately 13% of the total population. Nairobi remains the largest WSP with 19% of the population served and accounting for 39% of the sector turnover.

REPORTING REQUIREMENTS		
MONTHLY	QUARTERLY	ANNUAL
Water Quality	NRW	Water Quality Summary
	Tariff Implementation Status	
	Monitoring & Evaluation	

Annex 6 has determined the compliance status of WSPs. A WSP is deemed compliant if it has a valid license and tariff. In addition, the WSP must be up to date with regulatory levy payments within the financial year and must have adhered to the monthly, quarterly, and annual reporting requirements.

Table 3.2 : Overall Compliance Status

Status	Levy (No.)	Tariff (No.)	Licence (No.)	Reporting (No.)	Overall Compliance Status (%)
Compliant	16	65	79	43	12%
Non-Compliant	79	30	16	52	88%

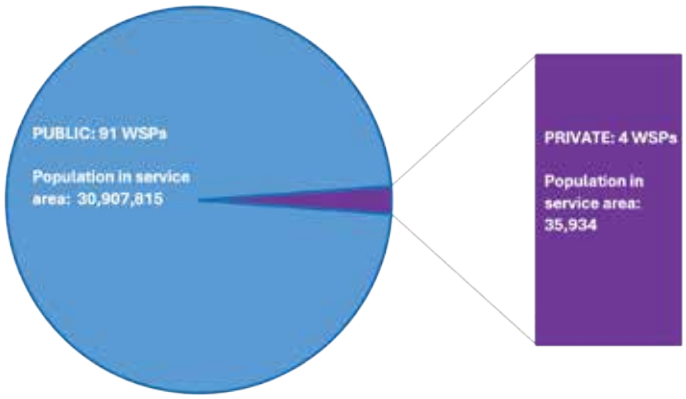
3.4 Comparing Utility Categorization with Service Delivery

To facilitate equitable performance comparisons, WSPs have been categorized based on size (total number of registered connections for both water and sewer) and ownership structure (public or private).

Based on the total number of water and sewerage connections, WSPs have been classified as Small, Medium, large, or very large, which is taken into account in the performance ranking.

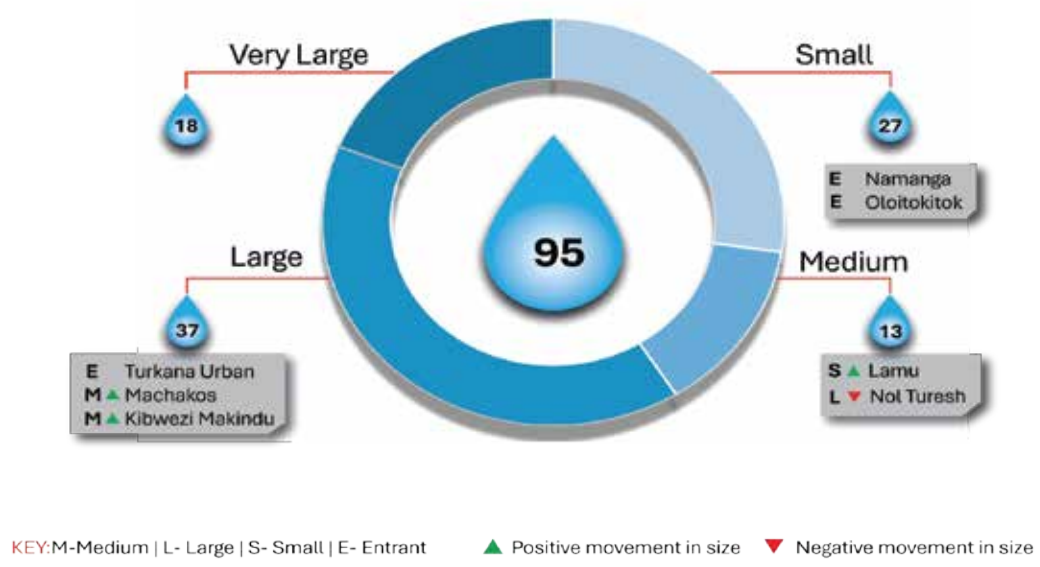
Regarding categorization by ownership structure, public WSPs serve a wide range of customers from high to low-income, whereas privately owned WSPs have a more homogeneous medium-to-high-income customer base and only cover a small population base.

Figure 3.2 : Categorization by Ownership



The regulated privately-owned WSPs remain four: Kiamumbi, Runda, Two Rivers and Tatu City with less than 1% of the population in service area.

Figure 3.3: Transition in Utility Size



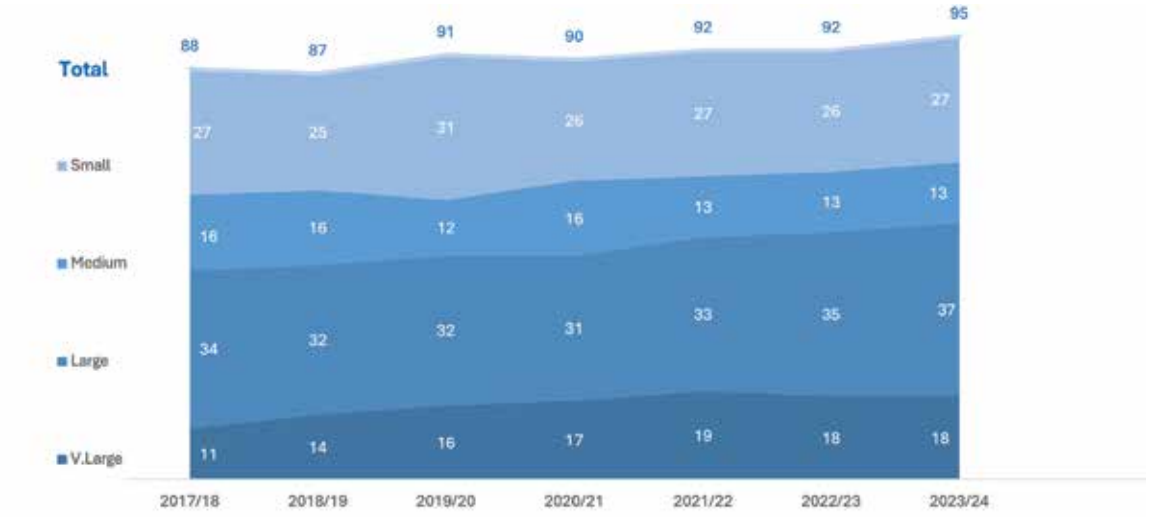
During the reporting period, the Very Large WSPs remained at 18. The large WSPs increased from 35 to 38 with the addition of Machakos, Kibwezi Makindu, and Turkana Urban (formerly Lodwar). The medium WSPs remained at 13, with Lamu growing from the small category and Nol Turesh becoming a small WSP from the large category.

The growth in utility size reflects the potential business scope. It enables the utility to harness the benefits of economies of scale. This will ultimately translate to increased access to potable water and quality of service.

3.5 Assessment of WSPs and Market Share Distribution

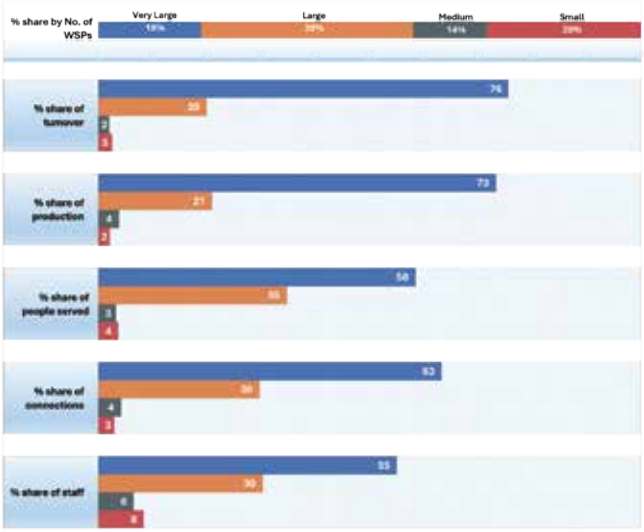
The distribution of the WSPs over the years recorded marginal changes despite the increase in reporting WSPs from 92 to 95. The large WSPs are the most, at 39%. The medium WSPs are the fewest, with only 13 WSPs, approximately 14%.

Figure 3.4: Proportion of WSPs in Size Categories



The large and very large WSPs dominate the market in terms of revenue, water production, and the number of people they serve. In the current period, the contribution of these 55 WSPs to the sector notably surged, constituting 96% of total turnover, 94% of total water production, and 93% of the population. Larger WSPs generally have access to greater infrastructure investment and coverage, while small providers often struggle with network expansion.

Figure 3.5: Market Share by Utility Size



3.6 Performance Evaluation and Ranking

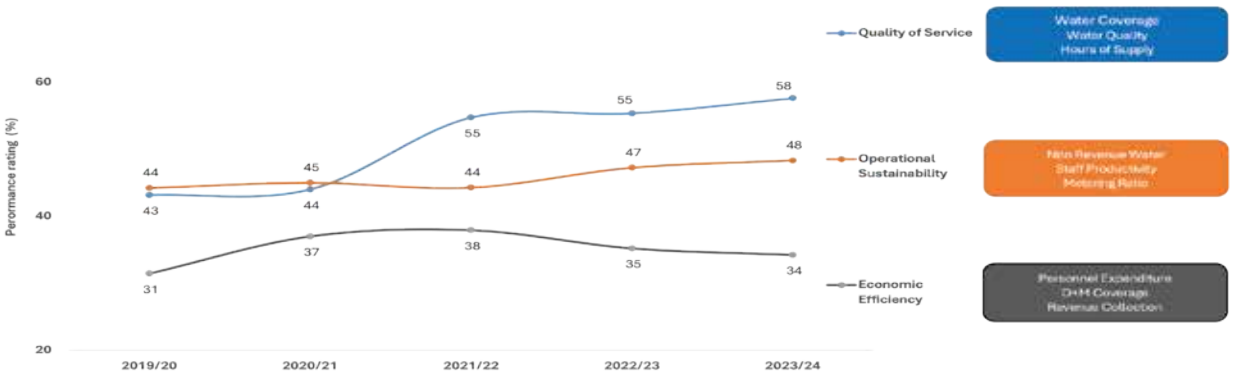
Performance evaluation and ranking are determined by a utility's performance across nine Key Performance Indicators (KPIs), with the scoring thresholds and benchmarks for these KPIs detailed in Table 3.3.

Table 3.3: Performance Indicators, Sector Benchmarks and Scoring Regime

KPI CLUSTER		INDICATORS		Sector Benchmarks			Scoring Regime	
				Good	Satisfactory	Poor	Performance	Score
Quality of Service	1	Water Coverage, %		>90%	80-90%	<80%	≥90%	30
							≤50%	0
	2	Drinking Water Quality , %		>95%	90-95%	<90%	≥95%	30
							≤90%	0
	3	Hours of Supply, No.	Population >100,000	21-24	16-20	<16	≥20	20
							≤10	0
			Population <100,000	17-24	12-16	<12	≥16	20
							≤6	0
Economic Efficiency	4	Personnel Expenditure as Percentage of O+M Costs, %	Large and Very Large Companies	<20%	20-30%	>30%	≤25	15
							≥35	0
			Medium Companies	<30%	30-40%	>40%	≤30	15
							≥40	0
			Small Companies	<40%	40-45%	>45%	≤40	15
							≥45	0
	5	O+M Cost Coverage, %		≥150%	100-149%	≤99%	≥150%	25
							≤90%	0
	6	Revenue Collection Efficiency, %		>95%	95-85%	<85%	≥95	20
							≤85	0
Operational Sustainability	7	Non-Revenue Water, %		<20%	20-25%	>25%	≤20%	25
							≥40%	0
	8	Staff Productivity (Staff per 1000 Connections), No.	Large & Very Large Companies	<5	5-8	>8	≤5	20
							≥8	0
			Medium & Small (less than 3 towns)	<7	7-11	>11	≤7	20
							≥11	0
			Medium & Small (3 or more towns)	<9	9-14	>14	≤9	20
							≥14	0
	9	Metering Ratio, %		100%	95-99%	<95%	100%	15
							≤80%	0
Total Maximum Score								**200**

The national aggregated performance using three indicator clusters is shown in Figure 3.6.

Figure 3.6: KPI Performance by Cluster



Analysing the sector trends in scoring for the cluster indicators over a period of five years, the Quality of Service and Operational Sustainability indicators improved.

However, economic efficiency has continued to decline over the last three years. This is due to the general increase in personnel expenditures. This may depict that the resources that were a function of the improved quality of service have yet to translate to efficiency gains commensurate with the investments. The trends for the specific indicators are under Table 3.2.* on Performance of WSPs by Indicators.

3.6.1 Comprehensive Ranking

The WSPs have been ranked based on the scoring regime in Table 3.2. Table 3.3 presents the individual ranking of the 91 publicly owned WSPs based on the scoring regime outlined earlier. The ranking of the four privately owned WSPs is presented in Table 3.4.

The top public utility was Nyeri, with a score of 168, followed closely by Nakuru Urban, with a score of 167 out of the possible 200 points. Nanyuki retained position three with a score of 163. The bottom three positions for the reporting period were Oloitokitok, Tana and Samburu, with scores of 6, 8, and 9, respectively.

Mombasa, Bomet, Tana, and Oloitokitok were the worst performers in the Very Large, Large, Medium, and Small categories, respectively.

Oloolaiser was not ranked as the utility is currently under a Special Regulatory Regime.

Table 3.4 (a): Overall Ranking and Ranking by Category for Publicly Owned WSPs

Indicator / Public Utilities	DWQ (%)	Non-Revenue Water (%)	Water Coverage (%)	Hours of Supply (hrs./d)	Staff Productivity (no. staff/'K conns.)	Revenue Collection Efficiency (%)	Personnel expenditures as % of total O+M costs	O+M Cost Coverage (%)	Metering Ratio (%)	Total Score	Ranking by category	Overall Ranking
Very Large												
Nyeri	100	15	100	24	4	108	49	108	100	168	1	1
Nakuru Urban	100	26	92	21	3	94	27	102	100	167	2	2
Thika	100	36	92	21	5	95	34	118	100	151	3	6
Kisumu	100	37	93	24	5	96	31	105	100	150	4	7
Ruiru-Juja	100	44	95	21	5	90	33	136	100	145	5	8
Kakamega Urban	93	37	98	21	4	97	55	118	100	141	6	12
Embu	100	35	83	23	5	95	49	102	100	140	7	13
Eldoret	93	37	83	23	4	103	54	106	100	131	8	18
Murang'a South	100	40	75	20	4	99	47	103	100	129	9	19
Malindi	100	21	73	20	8	85	38	102	100	111	10	27
Kirinyaga	100	52	65	21	5	92	56	85	100	110	11	28
Kilifi Mariakani	96	49	64	18	7	97	28	70	100	107	12	32
Gatundu	68	33	74	21	5	95	53	70	100	102	13	36
Nairobi	95	48	79	7	7	94	61	105	100	101	14	37
Othaya Mukurweini	100	45	48	24	6	93	43	98	99	101	15	38
Nzoia	93	42	47	20	6	112	37	97	100	93	16	42
Kericho	100	58	37	18	7	75	65	101	100	71	17	57
Mombasa	92	55	70	15	8	90	37	104	100	68	18	59
Large												
Nanyuki	100	28	95	23	4	97	50	123	100	163	1	3
Murang'a Urban	100	31	96	24	5	101	52	111	100	155	2	4
Isiolo	100	29	92	20	4	103	53	104	100	154	3	5
Ngandori Nginda	93	31	89	24	4	103	52	109	100	145	4	9
Meru	100	20	77	20	7	104	40	106	100	143	5	10
Tetu Aberdare	100	35	93	22	5	94	52	103	100	142	6	11
Naivasha	93	25	91	24	7	96	41	101	100	139	7	14
Ngagaka	99	35	73	24	5	102	54	101	100	133	8	16
Kiambu	98	32	82	21	6	93	34	103	100	133	9	17
Nyahururu	100	39	91	23	6	102	51	89	100	127	10	20
Nakuru Rural	100	43	75	22	6	95	45	104	98	120	11	21
Murang'a West	100	46	52	23	5	98	50	113	100	115	12	23
Mathira	100	36	64	24	4	84	42	119	100	112	13	24
Kitui	98	49	77	16	10	108	27	52	100	108	14	30
Limuru	93	33	80	17	7	101	37	90	100	107	15	31
Gatamathi	99	59	79	23	6	100	62	96	55	105	16	33
Nithi	100	56	58	19	6	102	44	92	100	105	17	34
Gusii	99	64	48	21	5	96	35	81	98	101	18	39
Kwale	98	50	37	17	10	110	24	72	100	94	19	41
Githunguri	96	63	22	16	5	75	30	68	100	92	20	43
Meru Rural	93	36	84	20	16	103	43	90	81	91	21	44
Gatanga	99	33	33	20	8	103	58	89	92	88	22	46
Kiambere Mwingi	93	37	59	9	9	92	30	54	100	87	23	47
Homabay	100	43	63	20	12	88	31	71	100	87	24	48
Machakos	100	27	66	10	9	89	48	75	100	81	25	53
Amatsi	93	45	7	21	17	100	37	57	98	74	26	54
Karuri	66	33	70	13	8	96	32	83	100	72	27	56
Tavevo	89	50	61	15	13	93	19	60	100	64	28	62
Kikuyu	50	38	81	12	9	94	34	72	100	64	29	63
Sibo	45	55	62	19	8	112	40	88	99	62	30	65
Mavoko	64	36	53	7	6	99	36	93	100	58	31	67
Kibwezi Makindu	92	58	50	14	14	96	57	83	100	54	32	69
Kyeni	0	31	14	18	6	79	72	105	72	52	33	70
Garissa	78	48	65	22	12	65	37	124	40	45	34	74
Busia	93	44	11	15	12	56	55	69	78	38	35	77
Turkana Urban	33	56	65	8	9	79	44	69	89	22	36	83
Bomet	51	61	12	14	20	77	46	40	46	15	37	85
Medium												
Kapsabet Nandi	100	38	37	20	8	95	35	85	100	110	1	29
Embe	93	54	77	16	9	97	51	79	100	105	2	35
Lamu	93	54	74	12	24	96	50	40	100	86	3	49
Murugi Mugumango	21	47	59	24	5	96	65	82	100	82	4	51
Kirandich	77	59	30	12	7	92	24	32	92	69	5	58
Nyandarua	79	42	59	20	13	96	42	88	100	61	6	66
Narok	70	33	78	10	11	81	34	89	100	55	7	68
Chemususu	50	66	22	19	16	96	45	107	45	47	8	73
Migori	93	44	26	8	15	75	17	33	92	45	9	75
Nol Turesh	84	68	13	14	9	79	58	75	84	27	10	82
Tuuru	0	64	5	6	40	71	76	124	0	14	11	86
Samburu	83	40	23	9	16	40	50	37	85	9	12	88
Tana	72	65	32	10	16	63	42	76	46	8	13	89
Small												
Rukanga	95	23	57	23	8	95	43	99	100	136	1	15
Nyasare	93	36	74	10	8	89	40	123	100	116	2	22
Tachasis	95	23	65	14	10	90	50	118	93	112	3	25
Naromoru	52	26	87	22	10	120	49	99	100	111	4	26
Kathiani	76	20	73	10	41	186	33	65	100	100	5	40
Iten Tambach	93	31	17	17	18	96	46	93	100	88	6	45
Muthambi 4K	23	31	40	24	6	83	37	98	100	84	7	50
Wote	100	33	57	7	19	108	46	68	100	81	8	52
Matungulu Kangundo	23	30	3	15	11	79	33	86	100	74	9	55
Ol Kalou	62	35	39	19	13	100	43	84	100	68	10	60
Olkejuado	0	24	17	16	56	27	26	51	95	66	11	61
Kakamega Rural	93	34	2	18	15	66	22	56	70	63	12	64
Yatta	70	32	68	13	14	70	47	103	100	50	13	71
Mbooni	100	45	3	10	48	58	66	53	95	49	14	72
Mwala	53	27	22	8	40	89	62	55	100	42	15	76
Marsabit	93	75	10	3	156	68	56	36	100	36	16	78
Mandera	86	47	21	18	83	67	14	13	0	35	17	79
Namanga	1	25	30	12	10	57	60	n.c.d.	10	34	18	80
Kapenguria	0	44	6	10	49	101	51	102	54	33	19	81
Wajir	78	65	7	18	143	57	47	7	81	21	20	84
Elwak	0	44	11	12	30	73	52	7	65	12	21	87
Oloitokitok	0	64	20	8	31	63	65	31	83	6	22	90
Not Ranked												
Ololaiser	90	41	80	18	17	95	54	68	100	X	X	X

Table 3.4 (b) : Overall Ranking for Privately-Owned WSPs

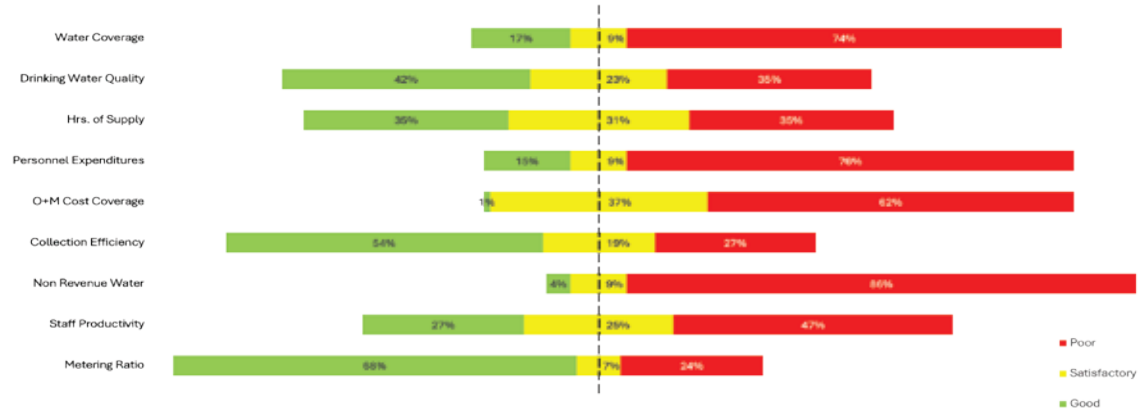
Indicator / Private Utilities	DWQ (%)	Non-Revenue Water (%)	Water Coverage (%)	Hours of Supply (hrs./d)	Staff Productivity (no. staff/K conns.)	Revenue Collection Efficiency (%)	Personnel expenditures as % of total O+M costs	O+M Cost Coverage (%)	Metering Ratio (%)	Total Score	Ranking by category	Overall Ranking
Tatu City	100	2	100	24	5	96	38	171	100	200	1	1
Kiamumbi	100	25	98	24	6	100	23	94	100	170	2	2
Runda	93	19	100	16	19	100	26	118	100	157	3	3
Two Rivers	93	8	100	24	22	108	0	106	100	153	4	4

In the privately owned category, Tatu City maintained its position as the top performer for the fourth year, with a full score of 200. Kiamumbi was ranked second, up from fourth place. Runda maintained position three in the category, while Two Rivers dropped to fourth from position two last year.

3.6.2 Performance Relative to Sector Benchmarks

As per sector benchmark criteria, the KPIs' performance is classified as 'good,' 'acceptable,' and 'not acceptable.' Figure 3.7 shows the performance of WSPs against sector benchmarks and the proportion of WSPs within each performance range.

Figure 3.7: Assessment of KPIs against Sector Benchmarks



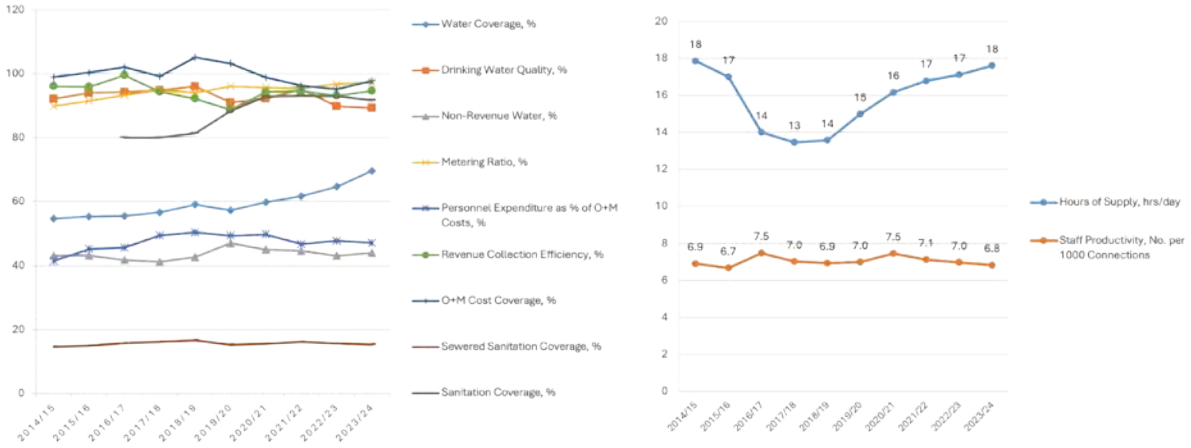
In the review period, the metering ratio was the best-performing KPI, with 68% of the WSPs meeting the acceptable sector benchmark, a slight improvement of one percentage point. Non-revenue water remained the worst-performing KPI, with 86% of the WSPs not meeting the acceptable benchmark of less than 25%.

Within each cluster of KPIs, the least number of WSPs met the performance benchmark in the following: Quality of Service – Water Coverage (17%); Economic Efficiency – O+M Cost Coverage (1%), and Operational Sustainability – Non-Revenue Water (4%). It is important to note that these are the same indicators as the last reporting period. The continued poor performance in these three indicators is of concern since these three KPIs have a critical role in shaping the water services provision and, subsequently, achieving the sector goals. There is a need to expand the network for water services through public sector investments. WSPs must also transition to cost recovery tariffs and effective use of levies. This will, in turn, attract investors to expanding sector financing.

3.6.3 Performance Trends Over Time

Over the past ten years, the performance indicators have been assessed, and the trends have varied. Of significant improvement is the Water Coverage, which has improved by 15 percentage points to 70. Staff Productivity has remained at 7, while the other indicators' trends have varied with marginal increases and decreases.

Figure 3.8: Ten-year Analysis of the Performance Indicators



Tables 3.5 and 3.6 show performance over period, relative to the previous reporting period of 2022/23, for publicly and privately-owned utilities respectively.

Table 3.5 (a): Performance Over Time of Publicly Owned Utilities

Rank	WSP	Score 2022/23	Score 2023/24
1	Nyeri	165	168
2	Nakuru Urban	166	167
3	Nanyuki	162	163
4	Murang'a Urban	143	155
5	Isiolo	154	154
6	Thika	150	151
7	Kisumu	148	150
8	Ruiru-Juja	144	145
9	Ngandori Nginda	135	145
10	Meru	147	143
11	Tetu Aberdare	92	142
12	Kakamega Urban	144	141
13	Embu	131	140
14	Naivasha	122	139
15	Rukanga	134	136
16	Ngagaka	112	133
17	Kiambu	99	133
18	Eldoret	123	131
19	Murang'a South	119	129
20	Nyahururu	128	127
21	Nakuru Rural	92	120
22	Nyasare	114	116
23	Murang'a West	108	115
24	Mathira	128	112
25	Tachasis	132	112
26	Naromoru	106	111
27	Malindi	114	111
28	Kirinyaga	114	110
29	Kapsabet Nandi	103	110
30	Kitui	93	108
31	Limuru	107	107
32	Kilifi Mariakani	96	107
33	Gatamathi	89	105
34	Nithi	98	105
35	Embe	86	105
36	Gatundu	77	102
37	Nairobi	88	101
38	Othaya Mukurweini	107	101
39	Gusii	74	101
40	Kathiani	77	100
41	Kwale	88	94
42	Nzoia	80	93
43	Githunguri	109	92
44	Meru Rural	100	91
45	Iten Tambach	101	88
46	Gatanga	70	88
47	Kiambere Mwingi	88	87
48	Homabay	48	87
49	Lamu	81	86
50	Muthambi 4K	76	84
51	Murugi Mugumango	101	82
52	Wote	93	81
53	Machakos	69	81
54	Amatsi	71	74
55	Matungulu Kangundo	58	74
56	Karuri	77	72
57	Kericho	74	71
58	Kirandich	41	69
59	Mombasa	72	68
60	Ol Kalou	60	68
61	Olkejuado	13	66
62	Tavevo	56	64
63	Kikuyu	73	64
64	Kakamega Rural	66	63
65	Sibo	52	62
66	Nyandarua	58	61
67	Mavoko	59	58
68	Narok	42	55
69	Kibwezi Makindu	77	54
70	Kyeni	31	52
71	Yatta	50	50
72	Mbooni	27	49
73	Chemususu	59	47
74	Garissa	62	45
75	Migori	30	45
76	Mwala	56	42
77	Busia	17	38
78	Marsabit	23	36
79	Mandera	56	35
80	Namanga	-	34
81	Kapenguria	31	33
82	Nol Turesh	55	27
83	Turkana Urban	-	22
84	Wajir	27	21
85	Bomet	17	15
86	Tuuru	17	14
87	Elwak	21	12
88	Samburu	0	9
89	Tana	23	8
90	Oloitokitok	-	6
XX	Oloolaiser	-	-

In the Private category, all the utilities recorded improvement in performance.

Table 3.5 (b): Performance Over Time of Privately-Owned Utilities

Rank	WSP	Score 2022/23	Score 2023/24
1	Tatu City	187	200
2	Kiamumbi	162	170
3	Runda	177	157
4	Two Rivers	186	153

To be recognized as improved, a utility must have shown improvement over two consecutive reporting periods and the score must be at least 50 points.

WASREB recognizes utilities that have improved their performance over time, even if they have not achieved top positions in the short or medium term due to circumstances beyond their control.

On the WSPs overall performance over time, the average score was 45%, a marginal improvement of one percentage point from the previous period.

The five-year trend shows continued improvement in the average score, although still below the 50% mark.

Table 3.5 (c) : Number and Percentage of Utilities Recording Improvement

Year	No. of Utilities	No. of Improvers	% of Improvers	Average Score, %
2019/20	91	47	52	38
2020/21	90	53	59	40
2021/22	92	52	57	44
2022/23	92	47	51	44
2023/24	95	69	73	45

3.6.4 Utility Performance Based on Key Performance Indicators

a) Water Coverage

Water coverage compares the population water service providers serve to those living within the licensed service area. WSPs are expected to ensure that despite the growing population in the service areas, service expansion is adequate. Additionally, licensed WSPs are required to maintain an updated inventory of any other water service provider operating within their jurisdiction.

The national performance on water coverage registered a notable improvement from 65% in 2022/23 to 70% in 2023/24. This movement translated to an additional 3.3 million people being served. The growth was attributed to both new connections and considering the additional population served by the verified small-scale service providers within the service area of the licensed water WSPs. In terms of water connections, individual connections retained the highest (86%) share of domestic connections. However, in terms of population served, multi-dwelling units accounted for the highest (43%) population served by the WSPs. On average one MDU connection serves 51 people.

Figure 3.9: Share of Domestic Connections Contributing to Coverage

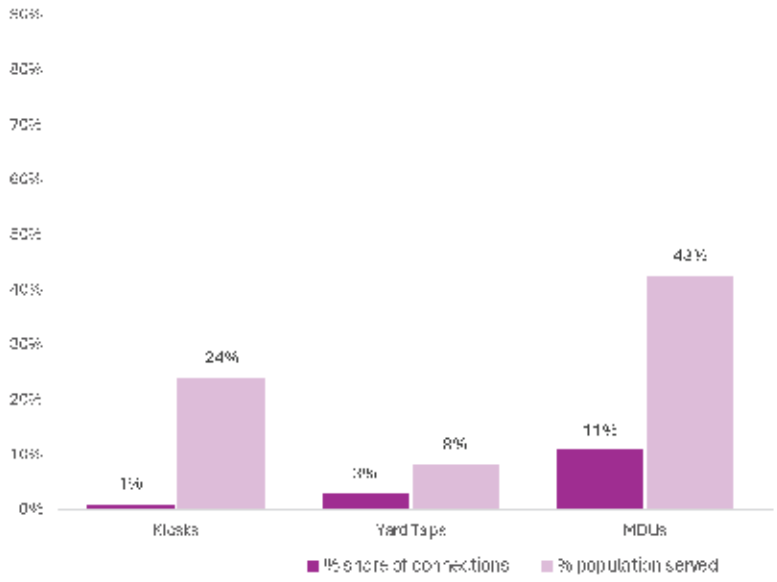
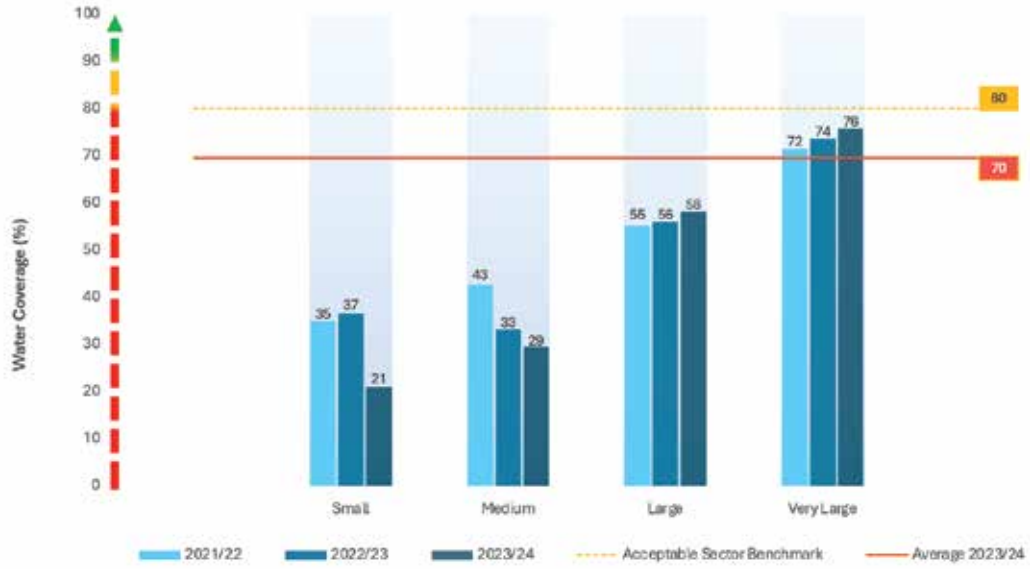


Figure 3.10: Water Coverage by WSP category, %

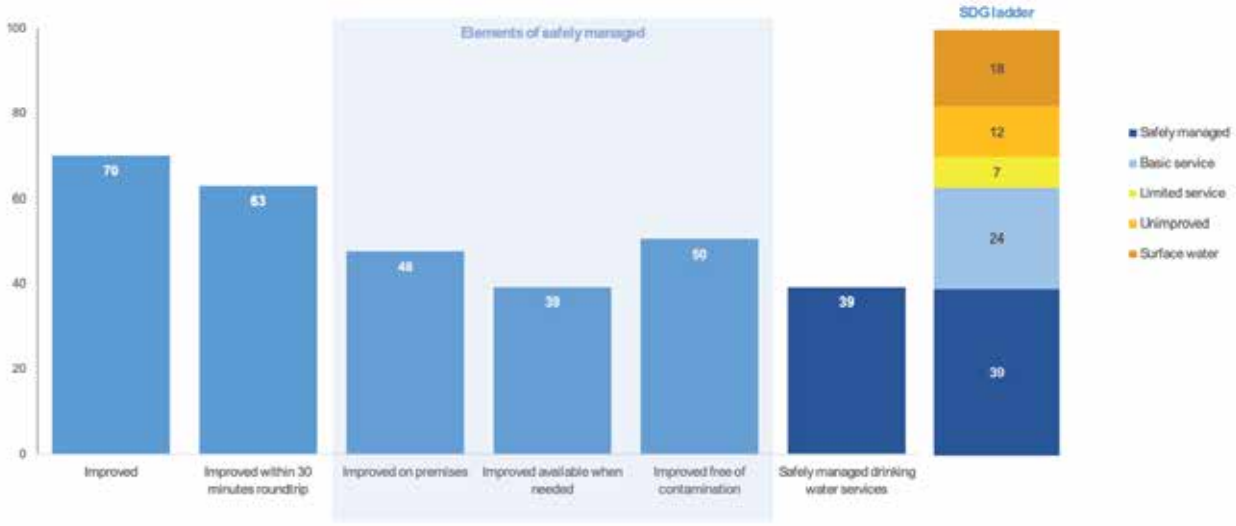


Across the various utility sizes, Across the various utility sizes, there was an improvement in water coverage. The overall population served for the small category WSPs decreased despite the additional WSPs (Namanga and Loitoktok). Conversely, the medium WSP category gained from the transition effect of Lamu and Nol Turesh WSPs.

The Joint Monitoring Programme (JMP) By WHO/UNICEF uses a service ladder to track progress on Sustainable Development Goal 6 (SDG 6), benchmark and compare service levels across countries. An assessment of the Kenyan situation indicates that 70% of the population uses improved water sources disaggregated as follows _ 7% have limited access, 24% have basic access, and only 39% have access to safely managed water that (on-premise, available when needed, and free from harmful contamination). Meanwhile, 16% rely on unimproved sources like unprotected wells or springs, and 14% access water directly from rivers, dams, lakes, ponds, streams, canals, or irrigation canals.

JMP Service Ladder for Drinking Water	
Drinking Water	Definition
Surface Water	Drinking water directly from natural sources like rivers, dams, lakes, ponds, streams, canals, or irrigation canals
Unimproved	Drinking water from an unprotected dug well or unprotected spring
Limited	Drinking water from an improved source, but the collection time exceeds 30 minutes for a roundtrip, including queuing
Basic	Drinking water from an improved source, with a collection time of no more than 30 minutes for a roundtrip, including queuing
Safely Managed	Drinking water from an improved source that is accessible on premises, available when needed and free from faecal and priority chemical contamination free from contamination

Figure 3.11: Proportion of Population using Safely Managed Drinking Water Services



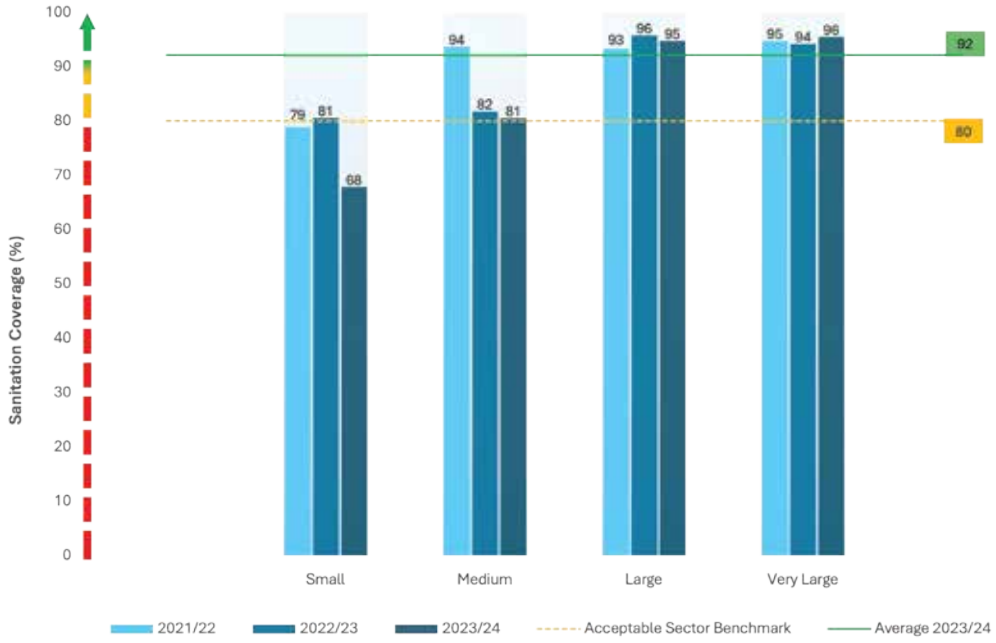
These highlights signify service gaps in availability, reliability, and quality. Strategic investments and targeted interventions are essential to accelerate progress toward achieving safely managed water for all.

b) Sanitation Coverage

The indicator on sanitation coverage considers the proportion of the population with access to improved sanitation. The sector registered a slight drop from 93% in the previous reporting period to 92% in 2023/24. In terms of people served an additional 1.3 million people were served. However, this increase did not match the additional 1.6 million people in the service area during the 2023/24 reporting period, hence the overall drop in sanitation coverage.

Whereas sanitation coverage measures access to services, a detailed assessment must consider access to safely managed sanitation. This underscores the place of a comprehensive sanitation key performance whose development commenced during the reporting period. The regulator envisages that the new sanitation indicator harmonizes severed and non-sewered sanitation services and strengthens the principles of citywide inclusive sanitation.

Figure 3.12: Sanitation Coverage by WSP category, %



Across the various utility sizes, sanitation coverage declined except for the very large category of WSPs. This was partly due to the net effect of the additional sewerage coverage by WSPs in this category. Also, the additional population served with sanitation matched the population growth in the service area.

Progress toward safely managed sanitation services, in line with SDG 6 targets, remains a critical focus area.

In the 2023/24 reporting period, 78% of the population used improved sanitation facilities, while 47% had access to private improved sanitation. 39% of the population used privately improved on-site sanitation solutions. However, only 20% have sanitation that is safely disposed of on-site or treated off-site, and 15% are connected to sewer networks. Just 10% benefit from safely transported and treated off-site services.

Overall, 29% of the population access safely managed sanitation services. The remainder rely on basic services (18%), limited services (31%), unimproved facilities (14%), or practice open defecation (8%).

This performance in sanitation underscores the need for expanded investment in safely managed sanitation infrastructure, with a particular focus on safely disposing, transporting, and treating waste to meet national and global health standards.

Figure 3.13: Proportion of Population using Safely Managed Sanitation

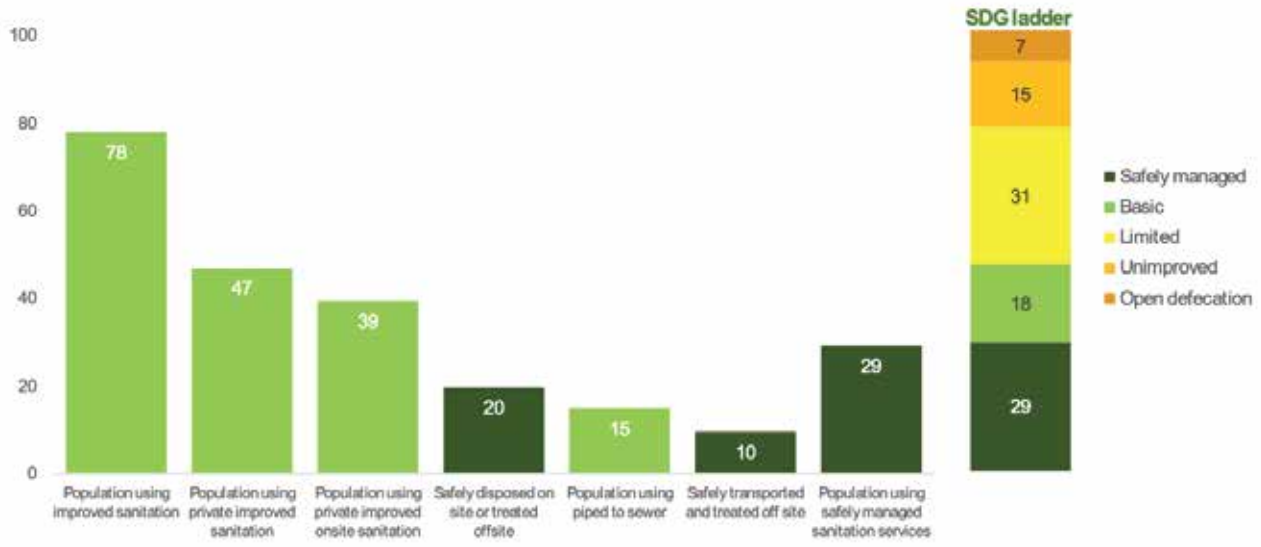
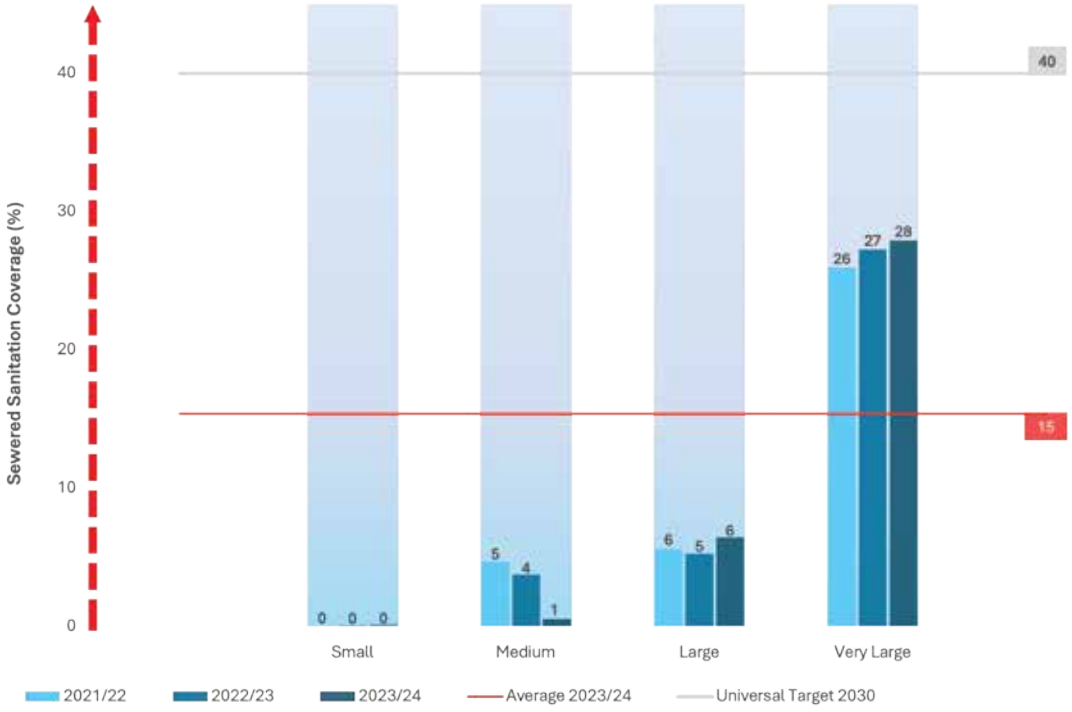


Figure 3.14: Sewered Sanitation Coverage, %

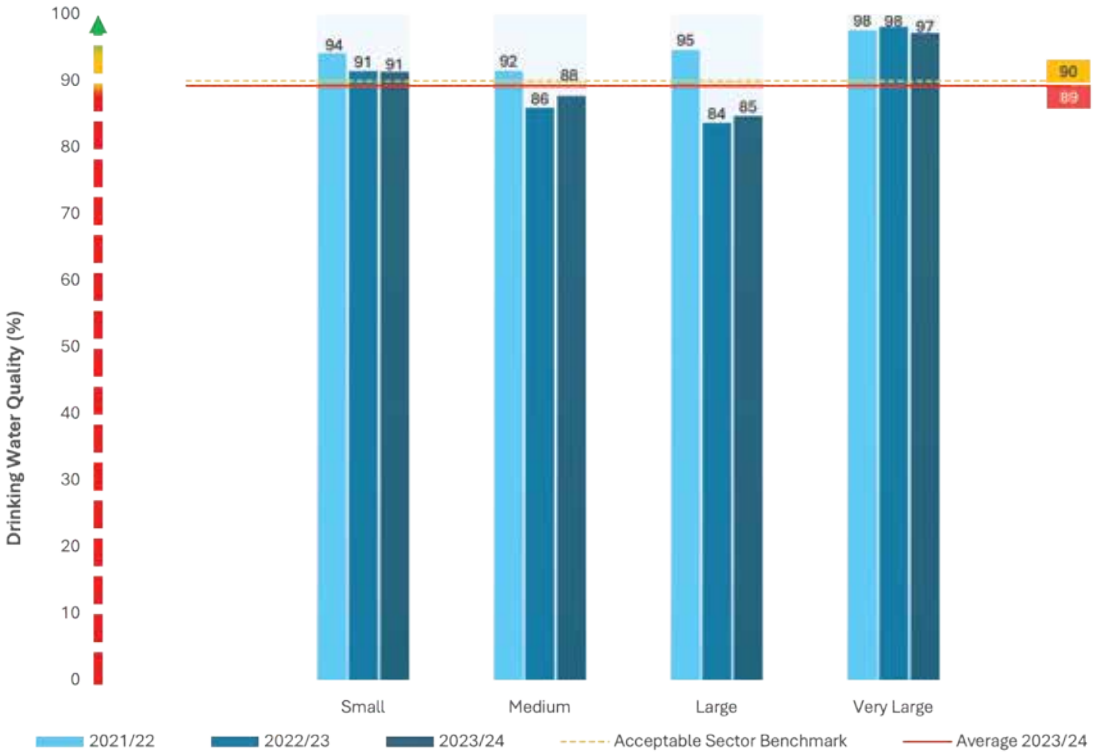


Coverage on sewered sanitation remained relatively low, dropping by one percentage point to 15%, considering that only 19,096 additional sewer connections were registered in the reporting period. The slow progress in sewered sanitation coverage demystifies the fundamental need to embrace options under non-sewered sanitation that guarantee safely managed sanitation. In this regard, the public sector must continue aligning with the provisions of the national sanitation management policy, which opens the place of non-sewered sanitation in the water sector.

c) Drinking Water Quality

Drinking Water Quality (DWQ) measures the potability of water supplied by a utility. The national average was 89%, a one-percentage-point drop from the previous year's reporting period. The decline was due to declined performance in the driver sub-indicators, which include compliance with planning and test standards.

Figure 3.15: Drinking Water Quality, %

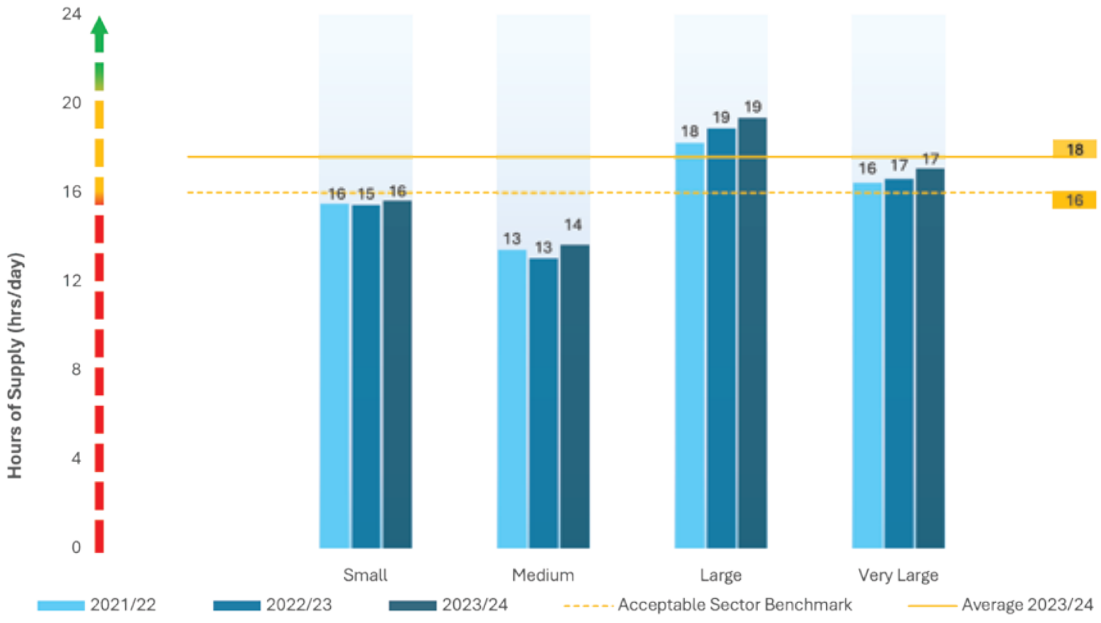


d) Hours of Supply

The hours of supply key performance indicator assesses the quality of services, availability, and reliability of water supply. To consumers, WSPs with high hours of supply raise the bar on dependability of services provided, which subsequently reinforces the realization of the human right to access water services.

In 2023/24, there was a marginal increase in supply hours to 18 hours per day. Whereas hours of supply reflect service reliability to all consumers, correlation to per capita consumption indicates the number of hours the water service is available for domestic consumption and, subsequently, the fulfilment of the basic right to water. In the reporting period, the per capita consumption was 26 litres per person per day, a decline from 29 liters in the previous period.

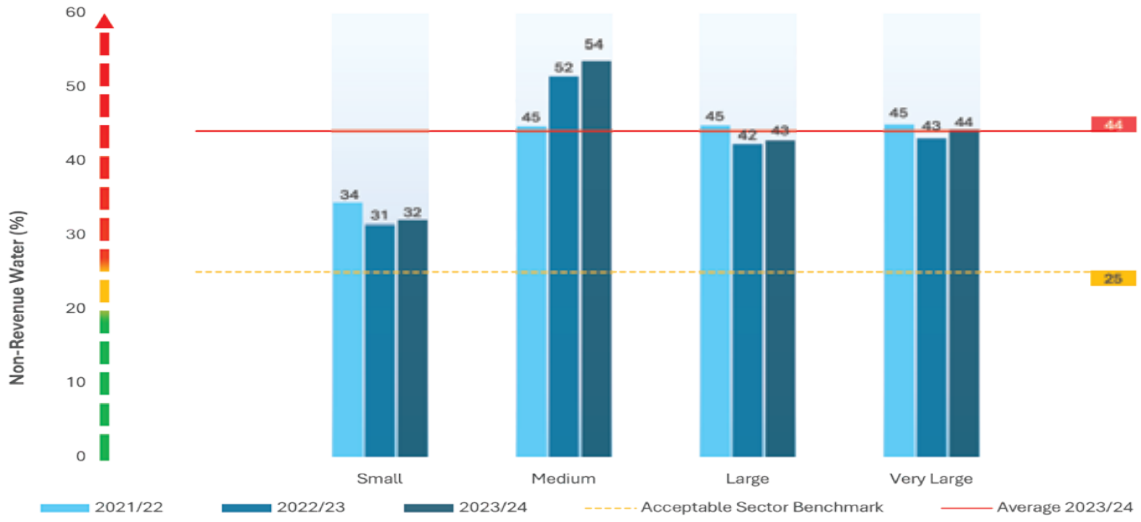
Figure 3.16: Hours of Supply, No



e) Non-Revenue Water

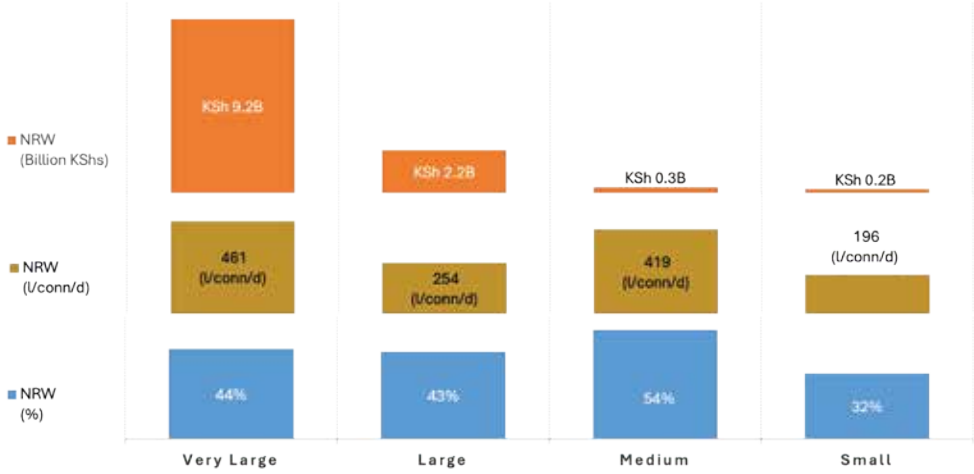
Non-revenue water (NRW) refers to the difference between the total volume of water introduced into the distribution system and the volume of water billed or accounted for as authorized consumption—whether billed or unbilled. NRW includes commercial (apparent) and physical (real) losses. It is a critical operational indicator that reflects the sustainability and efficiency of utility operations. The sector average of 44% non-revenue in 2023/24 sends a message analogous to injecting water into a water network, only to realize that nearly half of it never reaches the customer—or at least is not accounted for. This is the reality of Non-Revenue Water (NRW), which implies an invisible loss that includes everything from leaking pipes to unauthorized consumption. Subsequently, NRW is not just a technical issue; it is a direct hit to operational efficiency and long-term sustainability for water WSPs.

Figure 3.17: Non-Revenue Water, %



Over the past year, the sector recorded a decline in NRW performance, rising from 43% to 44%. In the reporting period, all utility size categories except the large ones recorded a decline, with medium WSPs remaining relatively constant.

Figure 3.18: Breakdown of NRW



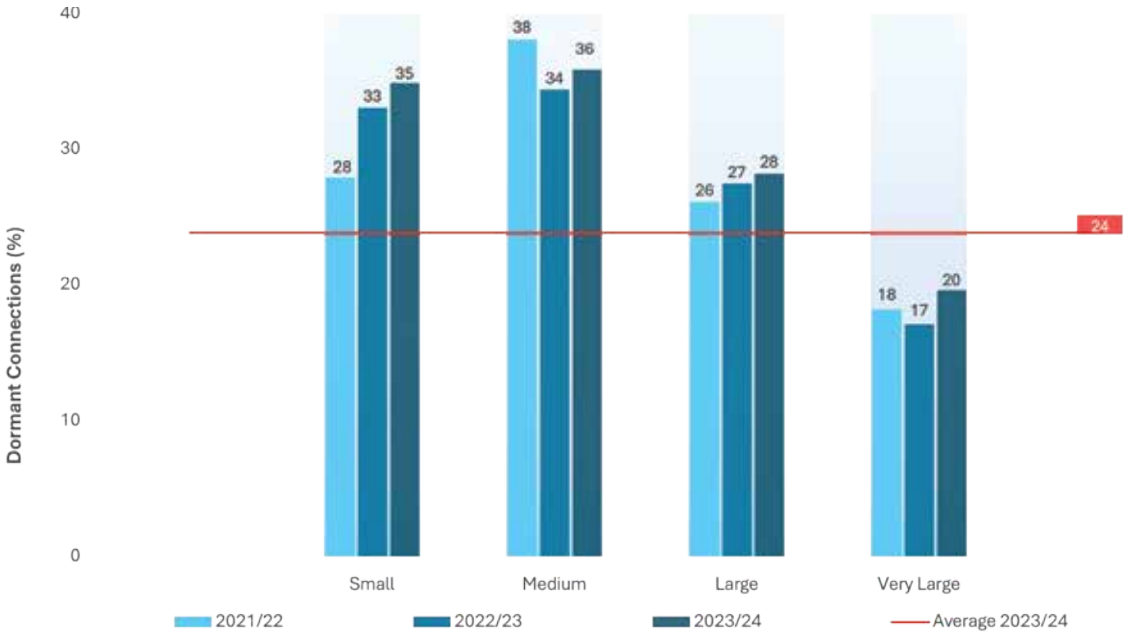
The interventions for NRW reduction include monitoring NRW through the implementation of standards, licence requirements with clear targets, and enhanced performance reporting.

The utilities are required to distinguish between technical and commercial losses, enable targeted intervention, adopt smart technologies, build capacity, reduce turnaround time for leakages, embrace performance-based contracts, and develop non-revenue reduction plans with clear financial support.

f) Dormant Connections

The analysis of dormant water connections across different utility sizes for the period 2021/22 to 2023/24 reveals varying performance levels and trends. Dormant connections are service points that remain inactive. They are a key indicator of operational inefficiencies and customer engagement challenges within WSPs.

Figure 3.19: Dormant Connections



The benchmark line on the figure highlights that the national average level of dormant connections was 24% in 2023/24. Very large WSPs continued to register the lowest rates of dormant connections, with a marginal increase from 17% in 2022/23 to 20% in 2023/24, but they remained well below the national average throughout the three-year period.

In contrast, large WSPs recorded a gradual increase in dormant connections, rising from 27% in 2022/23 to 28% in 2023/24, surpassing the national average in the current reporting period.

The most notable concerns arise from the medium and small utility categories, which consistently reported the highest dormancy levels. Medium WSPs closed at 36% in 2023/24. Small WSPs followed a similar trajectory, rising from 33% to 35% over the same period.

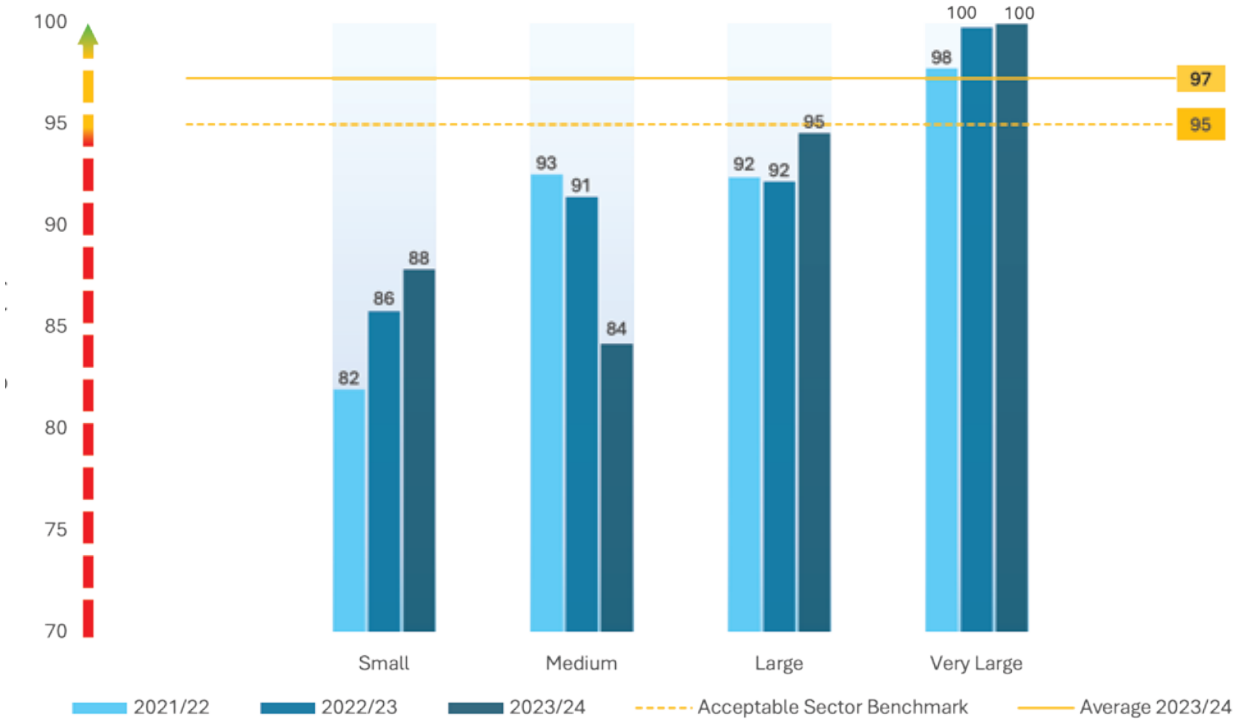
This highlights a need for enhanced data-cleaning efforts to verify the root cause of the dormancy and develop targeted interventions, particularly among medium and small WSPs.

g) Metering Ratio

The metering ratio, which reflects the percentage of metered water connections, is a critical measure of utility performance, particularly in promoting accountability, billing accuracy, and operational efficiency

In the 2023/24 period, Very Large WSPs demonstrated remarkable performance with a metering ratio of 100%, surpassing the sector benchmark of 95%. Large WSPs improved to 95%, aligning with the national average. However, performance in medium and small WSPs remains a concern. Medium WSPs declined from 93% to 84%. Small WSPs improved slightly from 82% to 86%, falling below the national average and benchmark. .

Figure 3.20: Metering Ratio



This widening disparity indicates that while larger WSPs achieve 100% metering levels, the smaller ones face ongoing challenges, presumably due to resource constraints. WSPS must bill consumers based on actual meter readings and not estimates. To close this gap, targeted interventions are to mobilize resources for medium and small WSPs to improve metering levels and overall service delivery.

h) Staff Productivity

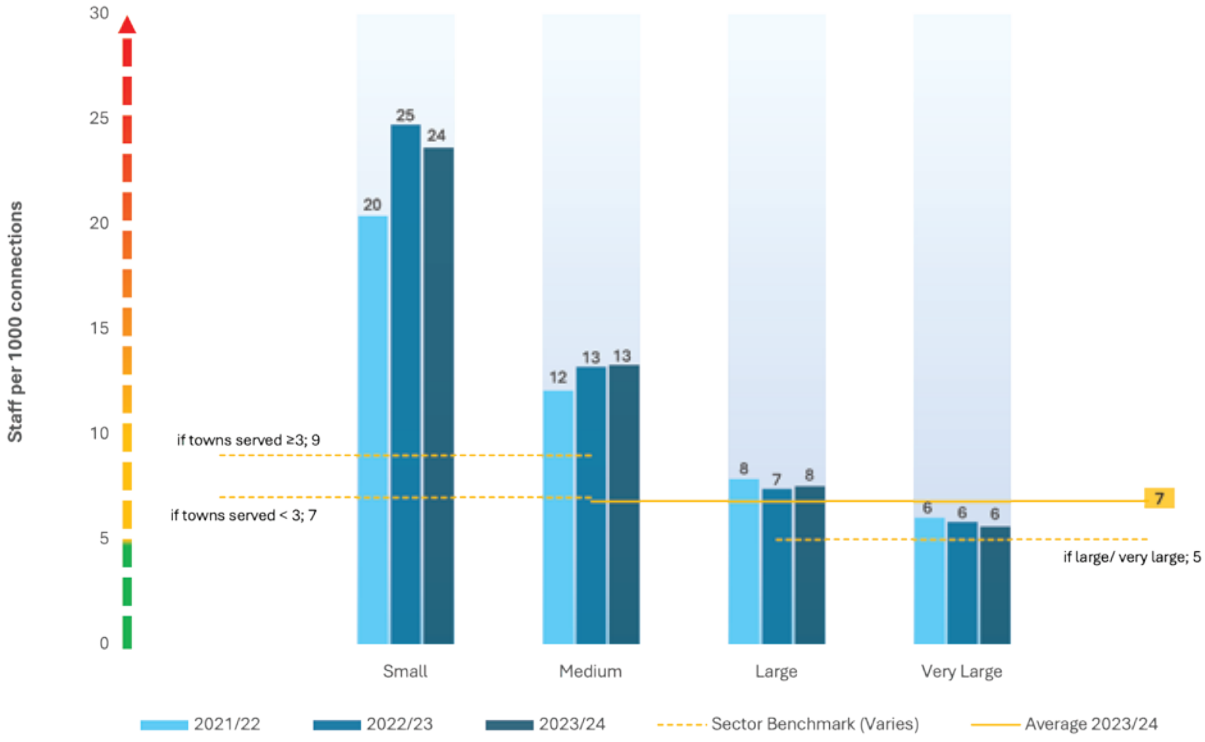
Staff productivity is one indicator of efficient water and sewer services. It is measured as the number of staff required to manage 1,000 active connections. A lower staff-to-connection ratio indicates a higher operational efficiency, implying that resources are being deployed effectively to serve a larger customer base.

Overall staff productivity stagnated at 7% for the third year. Very large WSPs, which are required to operate below 5, maintained a staff productivity of 6 for the third year, a drop of one (1) point for the category. The small and medium categories had staff productivity levels far beyond the benchmarks.

The landscape of staff productivity is far from uniform. Urban Water Service Providers benefit from densely populated areas and concentrated infrastructure, often achieving lower staff-to-connection ratios. This allows for streamlined operations and efficient resource allocation.

Conversely, WSPs navigating the complexities of rural or sparsely populated regions frequently contend with higher ratios. The dispersed nature of infrastructure necessitates a broader reach for personnel. This challenge intensifies WSPs' oversight of multiple independent systems, such as boreholes or localized treatment plants, each demanding dedicated attention and staffing for upkeep.

Figure 3.21: Staff Productivity, No of Staff per 1000 connections



Water Service Providers (WSPs) can adopt innovations such as smart metering, GIS mapping, and automated billing to reduce manual tasks and focus staff on strategic functions, enhancing productivity. Investing in staff training and upgrading aging infrastructure also boosts efficiency. Maintaining an optimal staff-to-connection ratio is essential—understaffing compromises service quality, while overstaffing increases operational costs.

i) Revenue Collection Efficiency

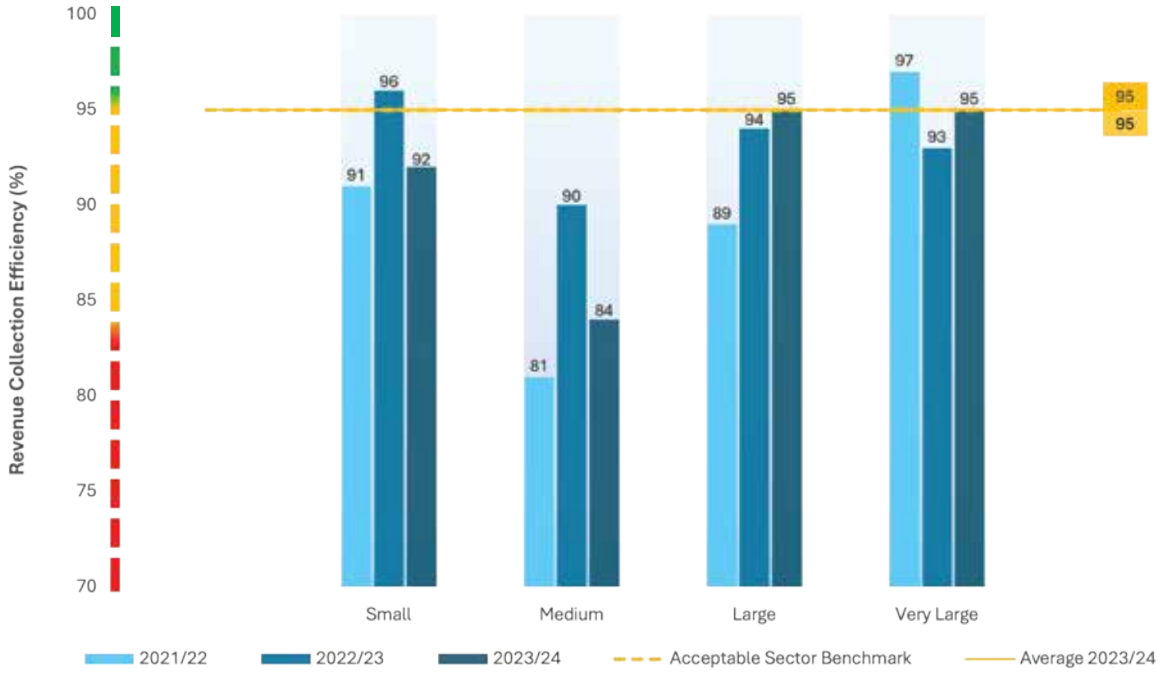
Revenue collection efficiency measures how effectively a WSP can collect payments from the total amount it bills its customers. It is a key indicator of the utility's financial management capacity and customer payment behavior.

Revenue collection efficiency improved overall, from 93% in FY 2022/23 to 95% in FY 2023/24. Very large and large WSPs each saw gains, reaching 95%. However, medium and small WSPs experienced a decline of 6 and 4 percentage points, respectively, underscoring persistent challenges such as inefficient billing systems and weak debt recovery mechanisms.

High collection efficiency signifies that the WSP successfully converts billed revenue into actual cash inflows, which is critical for sustaining day-to-day operations, maintaining infrastructure, and planning for future investments.

Poor efficiency, on the other hand, may indicate issues such as weak billing systems, customer dissatisfaction, or enforcement challenges. Therefore, improving this metric is essential for ensuring the WSPs financial viability and service reliability.

Figure 3.22: Revenue Collection Efficiency, %



To enhance performance, these WSPs must invest in smart billing technologies, establish robust debt management policies, and improve service quality—particularly reliability of supply—to boost customer willingness to pay and strengthen revenue streams.

j) Operation and Maintenance (O+M) Cost Coverage

O+M Cost Coverage assesses a utility's capacity to finance its routine operational expenses using internally generated revenues, primarily from water and sanitation services. This indicator is a key benchmark for financial sustainability since revenue from core services is generally more stable and within the utility's control, unlike external sources such as subsidies and donor grants. A high O&M cost coverage ratio, also known as the operational cost coverage ratio (OCCR), suggests that the utility is on a path toward self-sufficiency, reducing dependency on external support.

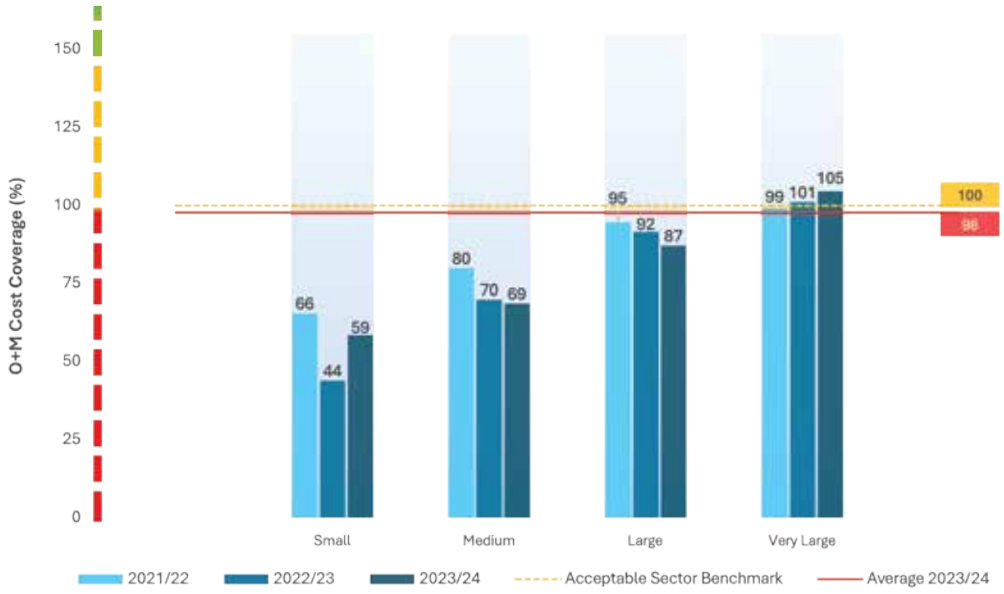
To achieve financial sustainability, WSPs must meet or exceed the threshold ratios outlined in Table 3.6.Operation and Maintenance (O+M) cost coverage rose from 95% in FY 2022/23 to 98% in FY 2023/24, driven by a 9% increase in total revenue, outpacing the 6% rise in total costs. This national improvement was largely attributed to the Very large WSPs, whose coverage increased from 101% to 105%. In contrast, large and medium WSPs experienced declines of 5 and 1 percentage points, respectively. Notably, small WSPs showed significant progress, with coverage improving from 44% to 59%, implying better cost recovery efforts at the lower tier.

Table 3.6: Operation and Maintenance (O+M) Cost Coverage Components

Cost Components	O + M Cost Coverage
O + M Cost	100%
O + M Cost + Debt Service + Minor Investments	101-149%
Full Cost Recovery	≥150%

Operation and Maintenance (O+M) cost coverage rose from 95% in FY 2022/23 to 98% in FY 2023/24, driven by a 9% increase in total revenue, outpacing the 6% rise in total costs. This national improvement was largely attributed to the Very large WSPs, whose coverage increased from 101% to 105%. In contrast, large and medium WSPs experienced declines of 5 and 1 percentage points, respectively. Notably, small WSPs showed significant progress, with coverage improving from 44% to 59%, implying better cost recovery efforts at the lower tier.

Figure 3.23: Operation and Maintenance Cost Coverage, %



Of 95 WSPs, 36 achieved full O+M cost coverage through internally generated revenue, recording an operating Cost Coverage Ratio (OCCR) above 100%. The list below highlights WSPs with strong financial performance (OCCR >110%) as well as those with significant shortfalls (OCCR <50%).

Table 3.7: Highest and lowest O+M Cost Coverage Ratio for WSPs

WSP	OCCR>110%
Tatu City	171
Ruiru Juja	136
Garisaa	124
Nanyuki	123
Nyasare	123
Mathira	119
Thika	118
Kakamega Urban	118
Tachasis	118
Runda	118
Muranga'a West	113
Murang'a Urban	111

WSP	OCCR<50 %
Bomet	40
Lamu	40
Samburu	37
Marsabit	36
Migori	33
Kirandich	32
Loitoktok	31
Mandera	13
Elwak	7
Wajir	7

The number of WSPs with justified tariffs rose from 29 to 40, contributing to the improvement in O+M cost coverage. Additionally, ongoing initiatives such as the CLSG II and K–WASH (P4R) programs, which target enhancing cost recovery among participating WSPs, are expected to further boost this KPI in upcoming reporting periods.

To enhance OCCR, WSPs must operate with justified tariffs, improve billing efficiency, and explore cost-reduction interventions such as solarization and process automation.

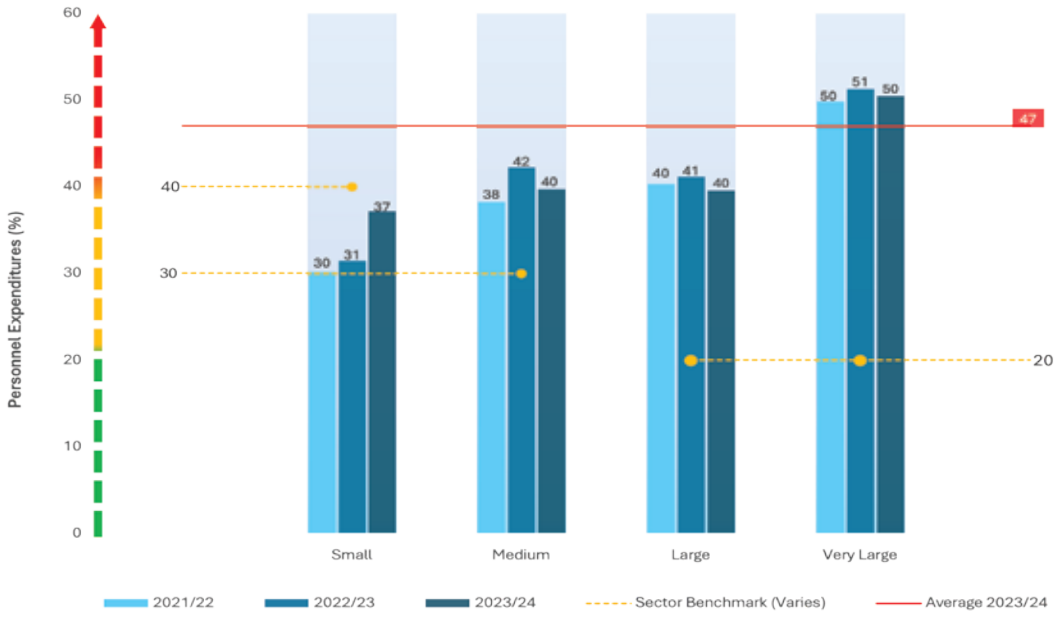
k) Personnel Costs as a Proportion of O+M Costs

Personnel Expenditure as a Percentage of O+M Costs evaluates the share of operational spending directed toward salaries, wages, and allowances, offering insight into a utility's efficiency and cost structure. The Sector benchmarks guide what is considered an optimal balance for each size category.

In FY 2023/34, this indicator improved by one percentage point from 48% to 47%, indicating progress towards the sector benchmark. All utility size categories, except the small category, recorded a decline in this indicator. The small WSPs experienced a 6-point increase, signalling rising pressure on staff-related costs. However, it's important to note that this increase remained within the sector benchmark, suggesting that the growth in personnel expenses, while notable, is not excessive or inefficient.

In contrast, very large and large WSPs–despite their scale and expected operational efficiencies–continued to operate above the sector benchmark for the third year. This is a concern, as these categories are typically likely to leverage economies of scale to keep personnel costs proportionally lower. The persistent breach of the benchmark implies potential inefficiencies in staffing structures, wage management, and productivity. This warrants a closer look into human resource policies, cost control, and containment mechanisms in these larger WSPs.

Figure 3.24: Personnel Cost as % of O+M, %

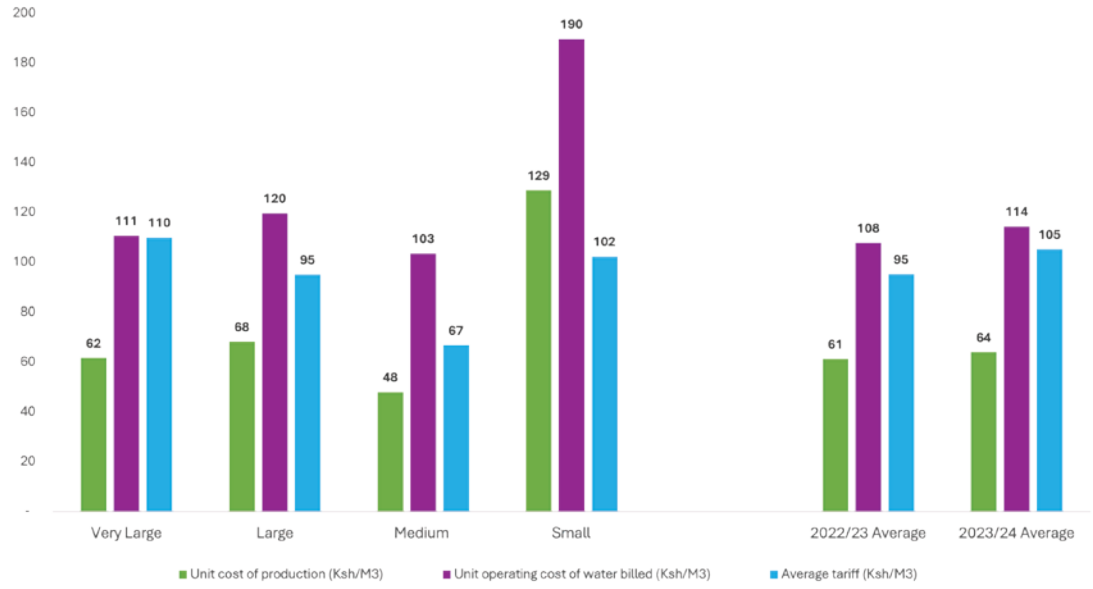


I) Comparison against Average Tariff and unit costs

Comparing the Average Tariff to the Unit Cost of Water Billed is essential in evaluating a utility'scapacity to recover operational costs from internally generated revenues. When the average tariff exceeds the unit cost of water billed, the utility is better positioned to meet its financial obligations—despite inefficiencies such as non-revenue water. Conversely, a lower average tariff than the unit cost signals revenue shortfalls and risk to sustainability.

Additionally, the gap between the Unit Cost of Production and the Unit Cost of Water Billed is a critical measure of operational efficiency. A significant disparity often points to inefficiencies in distribution, high system losses, or ineffective cost controls.

Figure 3.25: Tariff Cost Comparison



In the period, the average tariff rose by Ksh.10 to Ksh. 105, while the unit cost of production declined by Ksh. 3 to Ksh. 64.

At the same time, the unit cost of water billed increased by Ksh. 6.2 to Ksh. 114. The fact that average tariffs are rising faster than unit costs of water billed is a positive sign of improved self-sufficiency among WSPs.

The drop in the cost of production per M^3 was not reflected in the sector since the cost per unit of billed volumes increased at a higher rate. This caused the gap between production and unit costs from Ksh. 41 to Ksh. 50, showing greater inefficiency in the sector.

Across size categories, small WSPs recorded the highest unit costs for both production and billing, reflecting lower cost efficiency. Medium WSPs had the lowest unit costs, indicating better cost control. Notably, large WSPs demonstrated the highest operational efficiency, with only a 48% gap between production and billing costs. In contrast, the small category showed the widest gap at 57%, signalling inefficiencies in operations and higher loss levels.

Figure 3.26: Trends in Tariff and Unit cost of production: Very Large and Large WSPs

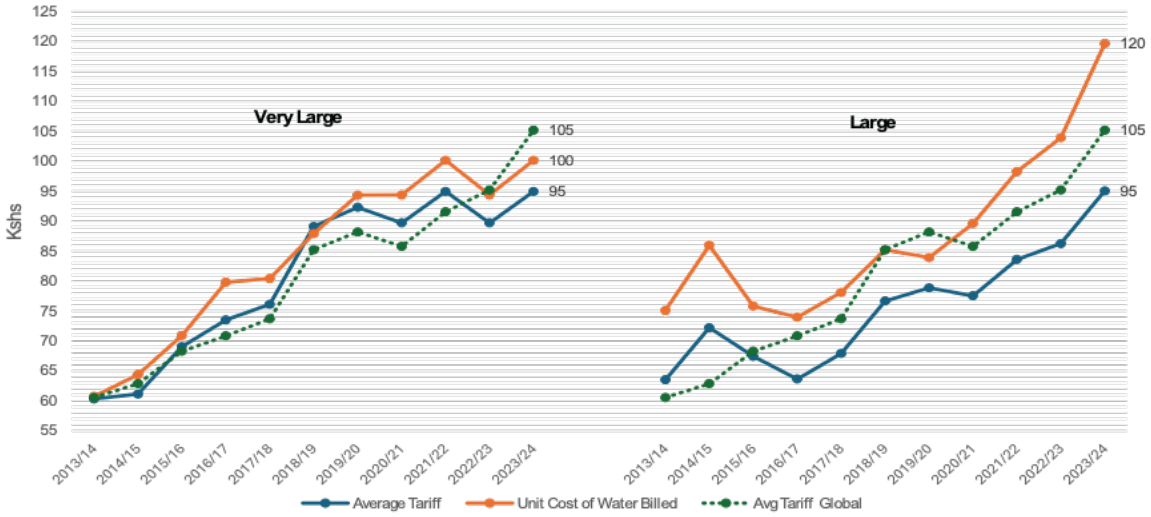
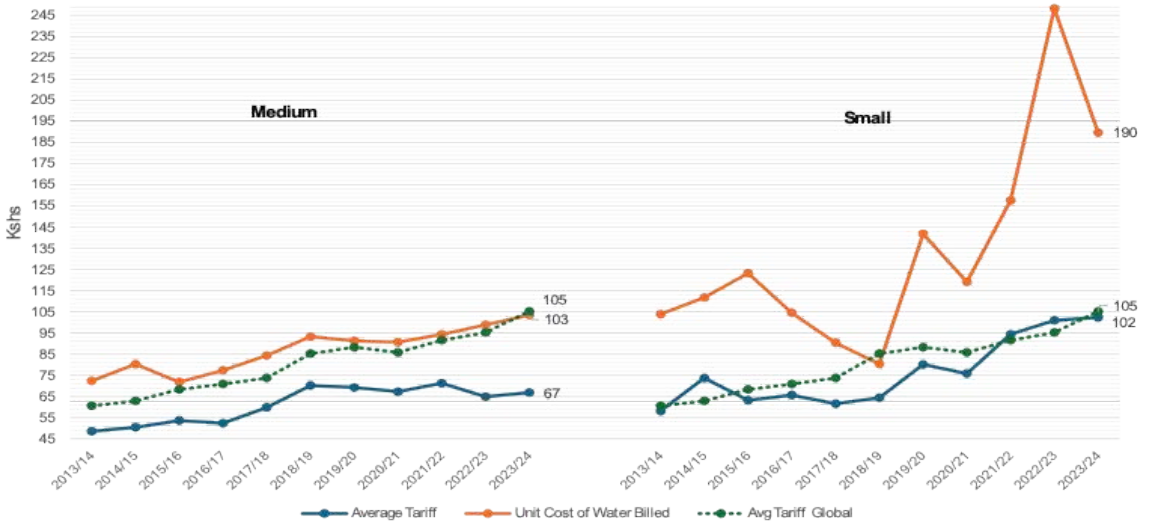


Figure 3.27: Trends in Tariff and Unit cost of production: Small and Medium WSPs



m) Grant Dependence

Grant dependence—calculated as the ratio of total grants to total costs—indicates the extent to which a water company relies on subsidies and donor grants to cover its operations and maintenance costs. It is a critical financial sustainability metric that assesses the WSPs efforts towards self-sufficiency.

Figure 3.28: Grants and Subsidies of O + M Costs

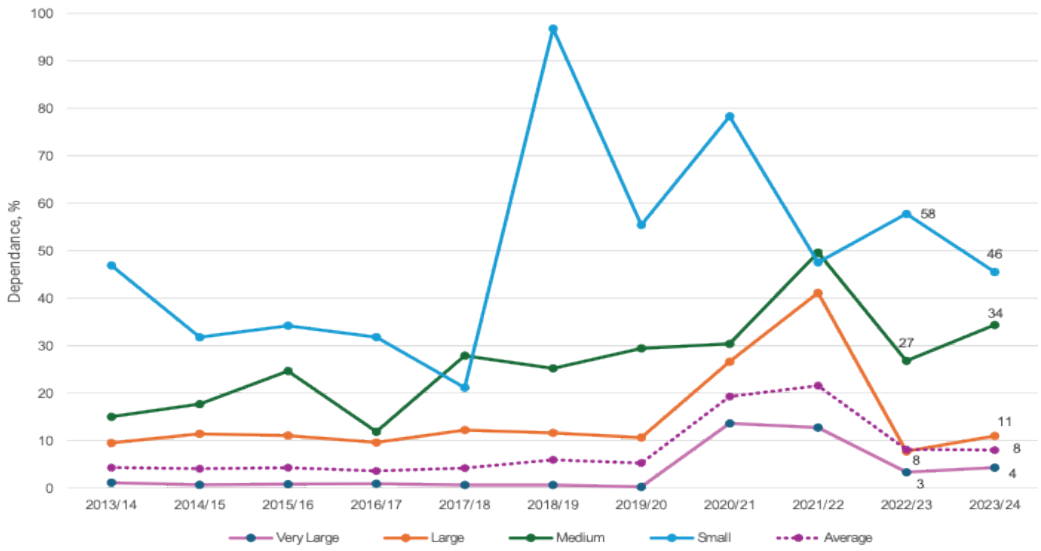


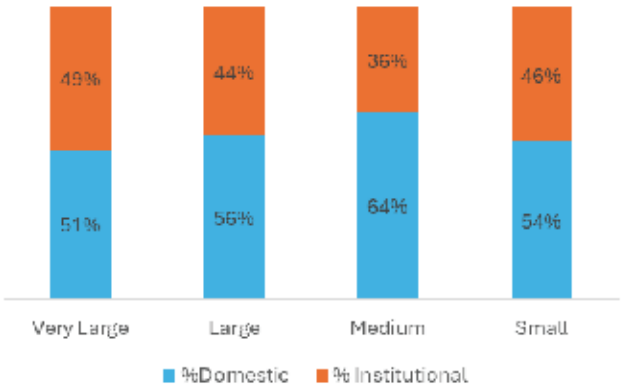
Table 3.8: O+M Parameters in Kshs

Category	Ksh. '000,000
Total Operating Revenue (including Billing plus other services)	28,250
Total Subsidies and Grants for O+M	2,480
Total Other Incomes	599
Total Revenue	28,850
Total O+M Expenditures	29,507

Grant dependence increased marginally for very large and large WSPs between FY 2023/24 and FY 2022/23. For the small category, grant dependence reduced from 58% to 46%.

n) Revenue Diversification

Figure 3.29: Revenue Diversification

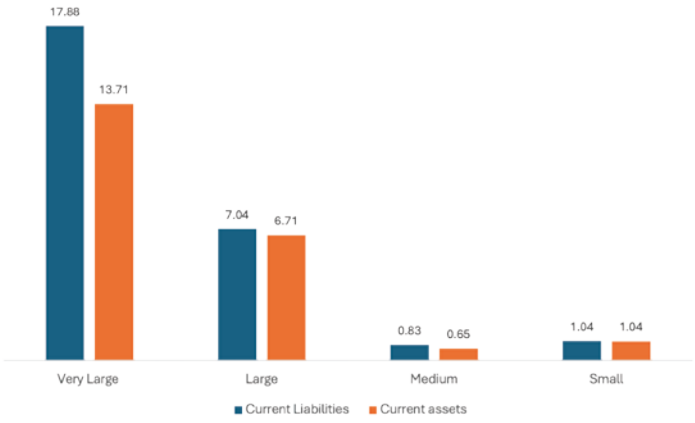


Revenue diversification measures how evenly a utility's operating revenues are spread across consumer types—domestic and institutional. A well-diversified utility does not overly rely on one group, reducing vulnerability to shocks affecting a specific segment. This enhances financial resilience, stability, and the ability to maintain services during economic or demand fluctuations. It's a key indicator of risk mitigation and sustainable utility management.

In FY 2023/24, large WSPs showed strong revenue diversification, with a near 50/50 split between domestic and institutional sources, indicating low-risk exposure. Small and very large WSPs were also relatively balanced. However, medium WSPs relied more heavily on domestic consumers, making them more vulnerable to demand or payment fluctuations in that segment. Diversifying revenue sources would strengthen their financial stability.

o) Liquidity of WSPs

Figure 3.30: Current Assets vs Liabilities (Ksh Billions)

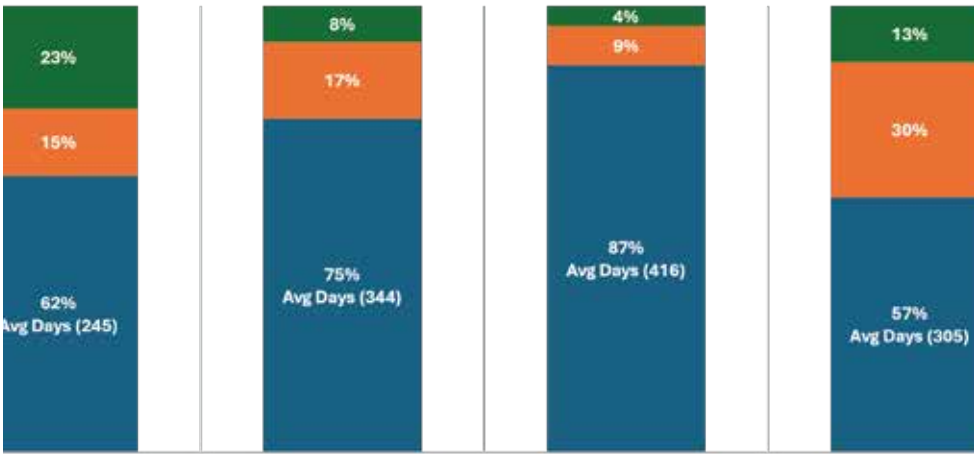


Liquidity reflects a utility's ability to meet short-term obligations. It is commonly measured by the ratio of current assets to current liabilities. While a ratio above 1 suggests good liquidity, this can be misleading if much of the current assets are tied up in unrecoverable customer debt. Effective liquidity management, therefore, depends not just on asset levels but also on the quality and convertibility of those assets into cash.

In FY 2023/24, all utility size categories—except the small category—had current liabilities exceeding current assets, indicating poor liquidity and potential cash flow challenges.

A major contributor to this weak position was the high proportion of trade receivables within current assets much of which remains uncollected beyond the sector's 60-day benchmark. The medium-sized WSPs were the most affected, with an average debtor collection period of 416 days, compared to 245 days for the very large category.

Figure 3.31: Distribution of Current Assets



The prolonged recovery period severely impacts liquidity, as revenues are locked in unpaid bills. To enhance liquidity, Water Service Providers (WSPs) need to improve their revenue collection processes, implement tighter credit policies, and actively pursue debt recovery. Regular tracking of outstanding receivables and aligning billing practices with cash flow objectives can also minimize financial risk and strengthen stability. Moreover, government institutions must ensure timely payment of their water bills to ease the liquidity constraints affecting the utilities.

3.6.5 Sanitation indicator rollout results

The proposed framework for key performance indicators in sanitation services for the water sector will monitor the targets established to achieve universal sanitation coverage in Kenya. This framework is aligned with constitutional and existing frameworks for monitoring sanitation performance at the global, regional, national, and sector levels.

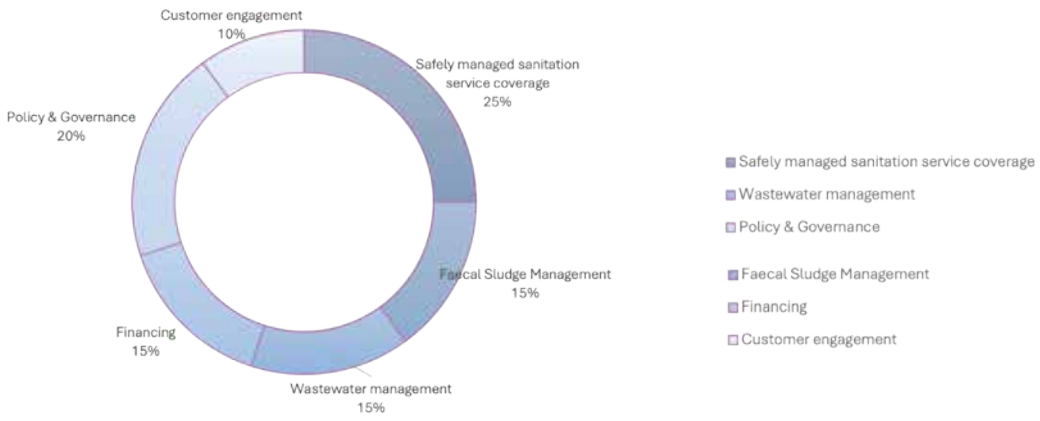
The sanitation indicators framework for monitoring, tracking, and reporting progress on the achievement of sanitation targets in the water sector at the WSP, county, and national levels focuses on the following six key domains:

- Demographic and administrative indicators
- Onsite (non-sewered) sanitation indicators at household level
- Onsite (non-sewered) sanitation indicators at the institutional level
- Faecal sludge management
- Sewerage and wastewater management indicators
- Institutional capacity indicators

WASREB has piloted the tool with 10 WSPs, Eldoret, Naivasha, Kisumu, Nyeri, Ruiru-Juja, Thika, Nakuru, Nairobi, Malindi, and Nanyuki, spanning 8 counties. The main finding was the importance of multisectoral collaboration to ensure that the data is consistent.

The scoring of the indicator weights is depicted in Figure 3.32.

Figure 3.32: Sanitation KPI Parameters and Weighting



From the sanitation pilot, it was determined that the definitions of the sanitation indicators need to be harmonized. WASREB requires collaboration with KNBS to ensure that the required sanitation parameters are included in the next census cycle to facilitate the baseline data.

The results from the pilot are as presented in Table 3.9.

Table 3.9: Sanitation KPI pilot results

KPI / WSP	Safely Managed Sanitation Service Coverage	Faecal Sludge Management	Wastewater Management	Financing	Policy & Governance	Customer Engagement	TOTAL
Ideal Weight	*25%*	*15%*	*15%*	*15%*	*20%*	*10%*	*100%*
Kisumu	21%	15%	15%	13%	10%	9%	**83%**
Nanyuki	21%	7%	12%	12%	17%	9%	**78%**
Nyeri	23%	3%	14%	13%	10%	9%	**72%**
Nakuru	20%	12%	14%	13%	16%	8%	**83%**
Eldoret	10%	10%	14%	11%	12%	10%	**67%**
Naivasha	13%	8%	11%	9%	12%	8%	**61%**
Nairobi	19%	8%	12%	14%	13%	8%	**74%**
Malindi	9%	1%	n/a*	6%	13%	8%	**43%**
Thika	16%	0%	13%	5%	7%	7%	**48%**
Ruiru-Juja	13%	4%	11%	0%	0%	0%	**28%**

n/a* For utilities without wastewater, the overall score is computed out of 85%

3.6.6 Customer Centricity Utility Assessment

WASREB seeks to reinforce efforts in promoting and monitoring the progressive realization of the Bill of Rights by institutionalizing citizen engagement and operationalizing the complaints management ecosystem to reorient service delivery. Creating awareness of the nature and quality of the services provided at required standards plays a lead role in pacifying the impacts of poor service. Involving citizens in decision-making through feedback loops ultimately improves performance.

There is a need to strengthen consumers' participation in water and sanitation services to realize their rights; participation guarantees the rights of all citizens by enabling them to engage in the services provided effectively. This involves information provision by water sector institutions to citizens in general and consumers in particular, formalized consultation and participation of citizens in service provision, and effective documentation and handling of consumer complaints.

Conscious of this, WASREB will assess utilities using the Citizen Engagement indicator, which is clustered in Four (4) broad areas, as seen in Table 3.10.

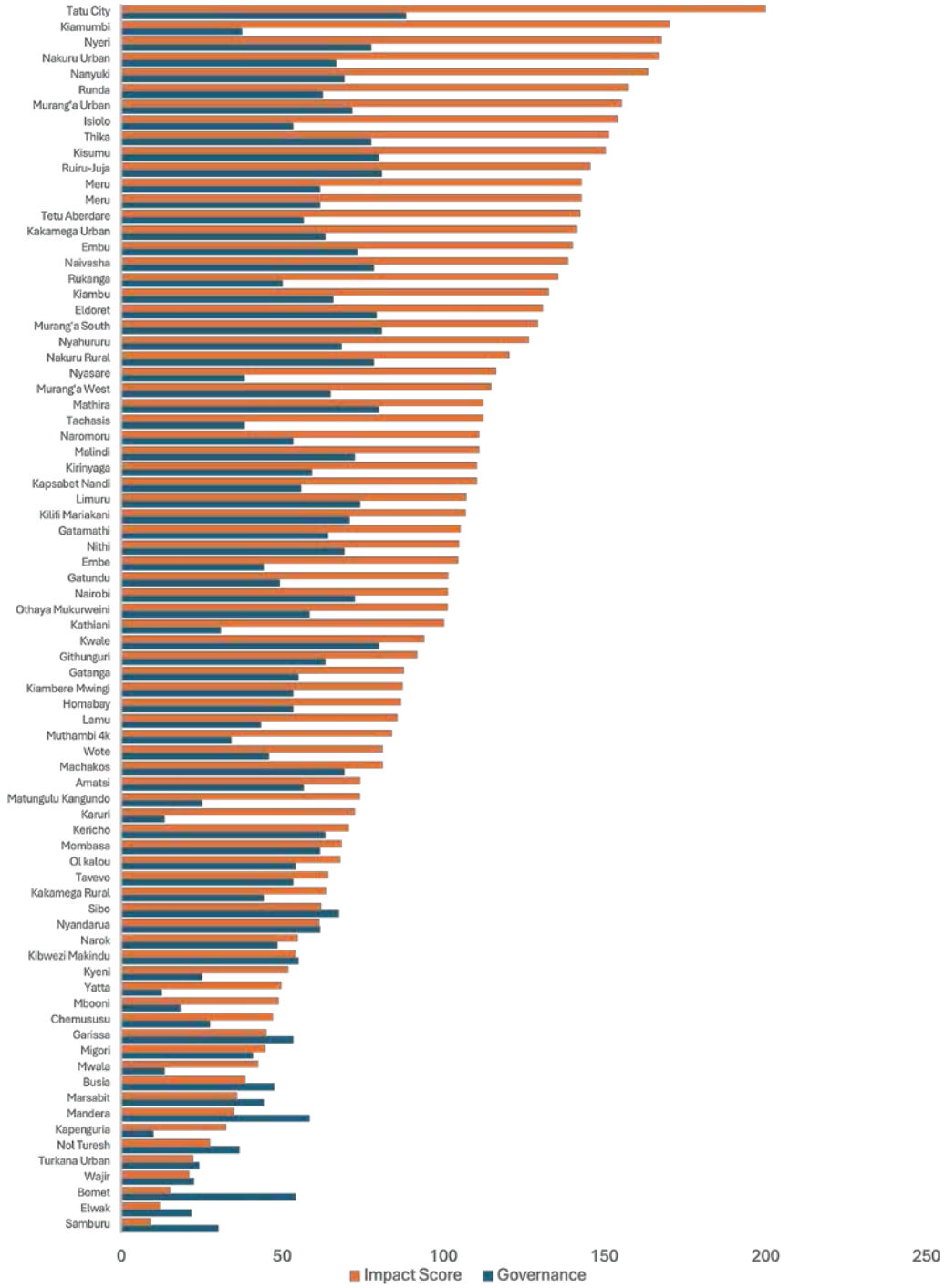
Table 3.10: Components of the Citizen Engagement Indicator

Policy and Structure	Planning and Financing	Service Standards	User Consultation
• The Utility has an approved Citizen Engagement Policy • There exists a written and published complaint system. • The Utility has an established Citizen Engagement function/role.	• The utility has a work plan for Consumer Engagement activities. • The work plan is aligned to the approved annual budget. • The utility adheres to the approved work plan.	• There is a published service charter publicly displayed. • The utility carries out customer satisfaction surveys at least every two years. • The utility has a score from the customer satisfaction surveys conducted in the last two years. • Complaints are resolved within the Turn Around Times (TAT)	• The utility publishes information to the public on its website about its operations. • The Utility's budget includes items for consumer engagement. • The utility implements community outreach and public awareness activities.

3.6.7 Governance Assessment

A governance assessment of the WSP was conducted, and 79 reports were provided. The assessment focused on the following sub-indicators: Utility Oversight/Supervision, Information and Control Systems, Financial Management, Service Standards, Human Resources, and User Consultation. The objective was to evaluate the effectiveness, transparency, and accountability of governance structures supporting service delivery.

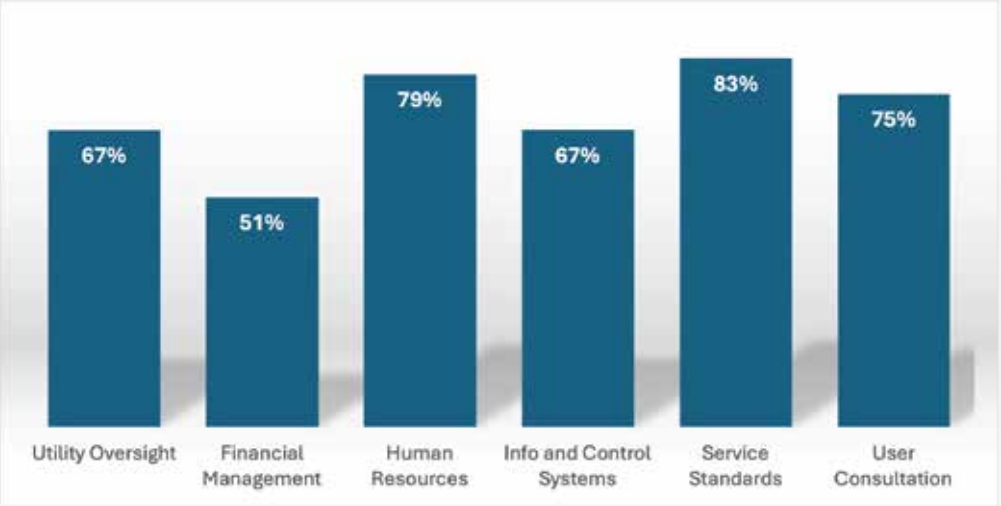
Figure 3.33: Governance Assessment Comparison against KPI Score



Relationship between governance and WSP performance

A positive and statistically significant correlation exists between governance score and overall utility performance. Regression analysis indicates that 37% of the variation in overall performance is explained by governance, highlighting its influence on key performance outcomes. This underscores that strong governance frameworks—including leadership, accountability, and strategic oversight—can drive improvements across operational and financial indicators. Focusing on governance provides WSPs with a strategic pathway to enhance overall performance

Figure 3.34: Governance Performance Across the Six Sub-Indicators



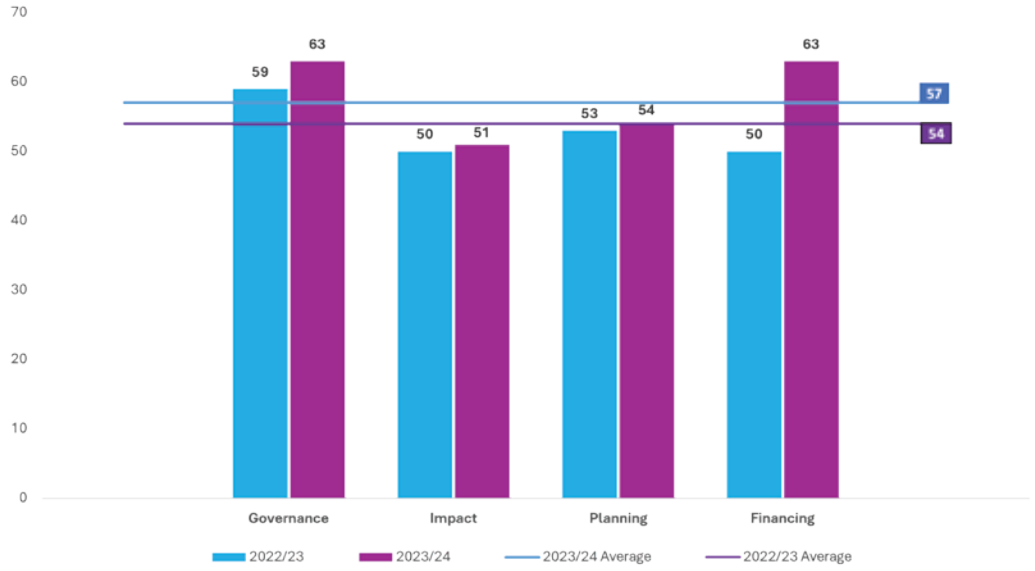
3.6.8 Assessment of Pro-Poor Initiatives

Pro-Poor Service Delivery Strategy and Assessment

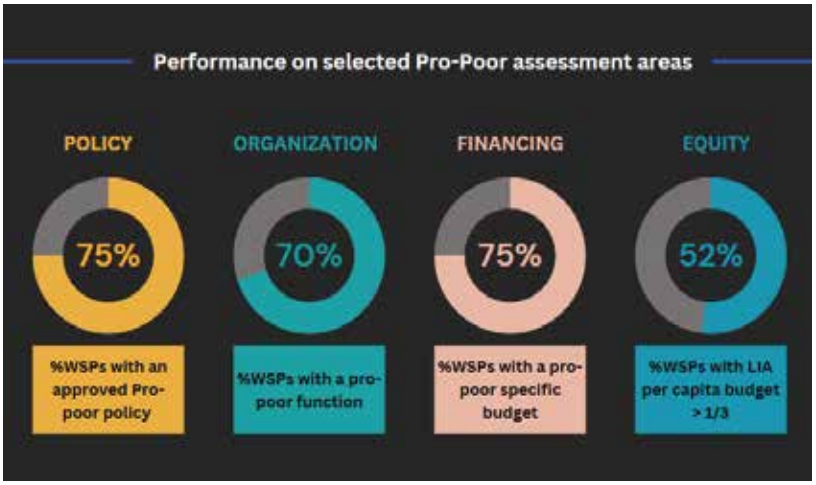
The National Water Services Strategy (NWSS) requires implementing a phased approach to serving low-income areas. To phase out informal service delivery, affordable access points like yard taps and kiosks must initially be promoted and progressively transition to individual connections.

To monitor service provision to underserved populations, WSP reports on specific pro-poor issues using a four-dimensional composite indicator covering planning, governance, financing, and impact. The assessment process involves a self-evaluation by WSPs, followed by regulator validation based strictly on documented evidence such as approved policies, reports, financial data, social surveys, and spatial information. WSPs must submit the complete pro-poor dataset through the Water Regulation Services Information System (WARIS) to be considered for assessment.

Figure 3.35: Performance in Pro-poor Parameters



In the 2023/24 reporting period, average performance improved significantly from 54% to 57%. Additionally, there was incremental performance across all four assessment dimensions.



Financing recorded the highest increase, indicating a strong commitment by the WSPs to mobilize resources for various pro-poor initiatives. However, there was minimal improvement in primarily encompasses the terms of impact, which effectiveness of various initiatives to increase access to water and sanitation in low-income areas. To improve in this area, WSPs must accurately disaggregate the various types of connections serving these areas.

In 2023/34, the number of WSPs reporting on pro-poor assessment increased to 74 from 53 in 2022/23. This translated to a 21% improvement in reporting. Also, compared to 2022/24, performance on select sub-indicators indicated continuous improvement.

Formalisation of Small- Scale Service Providers

Including third-party providers aligns with the NWSS's objective of achieving universal access to water and sanitation services. By leveraging the capabilities of these providers, especially in low-income and rural areas, the strategy aims to ensure that no one is left behind in the provision of essential water services.

While third-party providers operate under the umbrella of licensed WSPs, they must comply with the regulatory standards and guidelines established by WASREB. This includes adherence to service quality, tariff structures, and reporting requirements. The Water Act 2016 stipulates that any person providing water services must do so under a license issued by the Regulatory Board.

The Water Services Regulations empower licensed WSPs to enter into agreements with third parties such as public-private partnerships, sub-contracts, service provision arrangements, or the provision of licensed services or parts thereof. These agreements must ensure that third-party providers adhere to the standards and conditions set by the Water Services Regulatory Board (WASREB).

In the 2023/24 reporting period, there was an increased contribution of small-scale service providers particularly in the assessment of national water coverage. In total, 3,257 small-scale service providers were linked to WSPs' service areas. However, the regulator envisages that an upscaled update on operations and reporting framework for the SSSPs will improve the overall universal access for providers within and outside the WSPs' service areas.

3.6.9 Evaluation of Creditworthiness

Creditworthiness Index

The escalating ambition of achieving universal water and sanitation access (SDG 6), coupled with increasingly strained public funding and rising capital needs, necessitates WSPs to explore diverse financing avenues beyond traditional tariff revenues. Commercial loans, blended finance, and public-private partnerships offer promising solutions to bridge the sector's significant investment gap. However, the linchpin to unlocking these alternative funding sources lies in a utility's creditworthiness – its demonstrable capacity to reliably service debt obligations.

significant investment gap. However, the linchpin to unlocking these alternative funding sources lies in a utility's creditworthiness – its demonstrable capacity to reliably service debt obligations.

Lenders and investors meticulously evaluate creditworthiness by scrutinizing a utility's financial and operational health. This assessment, which considers historical financial performance, revenue stability, debt ratios, and cash flow adequacy, determines the risk associated with lending. Due to their perceived lower risk, WSPs with consistent revenues, robust financial controls, and efficient operations are more likely to secure favourable loan terms.

Conversely, WSPs grappling with weak financial discipline, operational inefficiencies, or over-reliance on grants often encounter limited access to credit or unfavourable borrowing conditions. Recognizing this, enhancing creditworthiness becomes paramount for accessing crucial capital and driving internal reforms that bolster governance and operational efficiency.

A Creditworthiness Index has been developed to facilitate a focused evaluation of this critical aspect. This index, mirroring conventional credit rating systems (e.g., AAA, BB), exclusively considers 23 weighted financial and operational indicators (detailed in Annex 7), drawing upon validated data from WARIS and audited financial statements for the fiscal year 2023/24. This standardized framework provides a valuable tool for benchmarking WSPs and pinpointing areas needing improvement to achieve investment-grade status, thereby paving the way for diversified funding and accelerated progress toward SDG 6.

Table 3.11: CWI Scoring Parameters

Score	Indicative Credit Worthiness Level	Description
>85	Creditworthy probably AAA category	Denotes the lowest expectation of default risk. Assigned only in cases of exceptionally strong capacity for payment of financial commitments. Highly unlikely to be adversely affected by foreseeable events.
71 to 85	Creditworthy probably AA category	Denotes expectations of very low default risk. Very strong capacity for payment of financial commitments. Not significantly vulnerable to foreseeable events.
61 to 70	Low-Creditworthy probably in A category	Denotes expectations of low default risk. Capacity for payment of financial commitments is considered strong. Capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings. In a credit rating, this definition is equivalent is equivalent to an A rating.
51 to 60	Low-Creditworthy probably in BBB category	Indicates that expectations of default risk are currently low. Capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity. In a credit rating, this definition is equivalent is equivalent to an BBB rating.
41 to 50	Low-Creditworthy probably in BB category	Indicates an elevated vulnerability to default risk, particular122\ly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists which supports the servicing of financial commitments In al credit rating, this definition is equivalent is equivalent to BB rating.
31 to 40	Lower-Creditworthy probably in B category	Indicates that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met, however, capacity for continued. payment is vulnerable to deterioration in the business and economic environment. In a credit rating, this definition is equivalent to B rating.
<= 30	No Rating awarded	Indicative of substantial to exceptionally high risk of default.

94 WSPs were assessed for creditworthiness in the financial year 2023/24 compared to 91 from the previous year. The utility which was not assessed was Namanga, due to data credibility issues. WSPs and their performance is presented in the Table 3.12.

Table 3.12: CWI Rating for WSPs

Rank	WSP	2022/23		2023/24		Variance
		Score	Rating	Score	Rating	
1	Mathira	54	BBB	63	A	9
2	Kakamega Urban	52	BBB	63	A	11
3	Tatu City	53	BBB	61	A	8
4	Ruiru-Juja	67	A	61	A	-6
5	Meru	63	A	61	A	-2
6	Runda	63	A	61	A	-2
7	Nanyuki	68	A	61	BBB	-7
8	Nyeri	63	A	59	BBB	-4
9	Murang'a West	60	BBB	59	BBB	-1
10	Nakuru	64	A	59	BBB	-5
11	Thika	57	BBB	58	BBB	1
12	Naivasha	50	BB	56	BBB	6
13	Ngagaka	52	BBB	56	BBB	4
14	Murang'a Urban	53	BBB	55	BBB	3
15	Isiolo	54	BBB	54	BBB	0
16	Embu	36	B	53	BBB	17
17	Nairobi	29	NO RATING	51	BB	22
18	Garissa	48	BB	51	BB	3
19	Tetu Aberdare	51	BB	51	BB	0
20	Kisumu	61	BBB	51	BB	-10
21	Kathiani	36	B	50	BB	14
22	Nakuru Rural	33	B	50	BB	17
23	Tachasis	53	BBB	49	BB	-3
24	Murang'a South	33	B	49	BB	15
25	Ngandori Nginda	45	BB	48	BB	3
26	Eldoret	34	B	48	BB	14
27	Nithi	39	B	47	BB	9
28	Chemususu	29	NO RATING	47	BB	19
29	Kiambu	29	NO RATING	46	BB	16
30	Two Rivers	45	BB	46	BB	0
31	Kyeni	27	NO RATING	43	BB	16
32	Nyasare	47	BB	43	BB	-4
33	Mombasa	29	NO RATING	42	BB	13
34	Ol kalou	38	B	41	BB	4
35	Limuru	39	B	41	BB	2
36	Tuuru	26	NO RATING	41	BB	15
37	Malindi	29	NO RATING	41	B	12
38	Nyahururu	36	B	40	B	4
39	Othaya Mukurweini	44	BB	39	B	-4
40	Kapsabet Nandi	30	NO RATING	39	B	9
41	Rukanga	47	BB	38	B	-9
42	Tavevo	39	B	38	B	-1
43	Gatundu	39	B	37	B	-2
44	Kericho	21	NO RATING	37	B	16
45	Yatta	40	B	37	B	-3
46	Olkejuado	21	NO RATING	37	B	15
47	Mavoko	34	B	36	B	2
48	Kapenguria	32	B	36	B	4
49	Kibwezi Makindu	42	BB	36	B	-6
50	Kiamumbi	48	BB	35	B	-13
51	Meru Rural	34	B	35	B	1
52	Naromoru	31	B	35	B	3
53	Gusii	31	NO RATING	34	B	3
54	Kikuyu	31	B	34	B	3
55	Wote	29	NO RATING	33	B	4
56	Nzoia	41	B	33	B	-7
57	Karuri	32	B	33	B	1
58	Iten tambach	31	B	33	B	2
59	Githunguri	34	B	32	B	-2
60	Kwale	32	B	32	B	0
61	Kirinyaga	28	NO RATING	32	B	4
62	Machakos	24	NO RATING	32	B	7
63	Narok	28	NO RATING	31	B	4
64	Gatamathi	43	BB	31	B	-11
65	Matungulu Kangundo	28	NO RATING	31	B	3
66	Murugi Mugumango	30	NO RATING	30	NO RATING	0
67	Sibo	30	NO RATING	30	NO RATING	0
68	Muthambi 4k	33	B	30	NO RATING	-3
69	Embe	29	NO RATING	29	NO RATING	0
70	Gatanga	30	NO RATING	28	NO RATING	-2
71	Samburu	19	NO RATING	28	NO RATING	9
72	Kilifi	29	NO RATING	27	NO RATING	-1
73	Mwala	33	B	27	NO RATING	-6
74	Kiambere Mwingi	39	B	26	NO RATING	-14
75	Nyandarua	25	NO RATING	25	NO RATING	0
76	Tana River	29	NO RATING	24	NO RATING	-5
77	Homabay	22	NO RATING	23	NO RATING	1
78	Kitui	25	NO RATING	22	NO RATING	-3
79	Marsabit	32	B	22	NO RATING	-10
80	Mandera	19	NO RATING	21	NO RATING	3
81	Oloolaiser	21	NO RATING	21	NO RATING	0
82	Amatsi	18	NO RATING	20	NO RATING	3
83	Nol Turesh	55	BBB	20	NO RATING	-35
84	Turkana Urban	1	NO RATING	19	NO RATING	18
85	Lamu	19	NO RATING	18	NO RATING	-1
86	Kakamega Rural	14	NO RATING	18	NO RATING	4
87	Busia	15	NO RATING	15	NO RATING	0
88	Kirandich	28	NO RATING	13	NO RATING	-16
89	Migori	18	NO RATING	12	NO RATING	-6
90	Mbooni	13	NO RATING	9	NO RATING	-4
91	Bomet	17	NO RATING	9	NO RATING	-8
92	Wajir	6	NO RATING	8	NO RATING	2
93	Elwak	21	NO RATING	8	NO RATING	-13
94	Oloitokitok		NO RATING	3	NO RATING	3

The 2022/23 CWI scores have been restated based on the new WARIS computation. Average performance improved from 35.5 to 37.2, driven by gains in economic efficiency indicators – notably operational and maintenance cost coverage, revenue collection efficiency, and personnel expenditure as a percentage of O+M costs. The table below provides a summary of performance across all scores.

Table 3.13: CWI Performance Summary

Score	>85	71>85	61 to 70	51 to 60	41 to 50	31 to 40	<=30
Rating	AAA	AA	A	BBB	BB	B	No Rating
2022/23	0	0	6	10	11	27	37
2023/24	0	0	6	9	21	29	29

The analysis also considered the most improved and declined WSPs during the reporting period. Nairobi was the most improved due to improved cost coverage and a reduction in debtors' days, while NolTuresh recorded the greatest decline due to a decline in the cost coverage ratio and increased NRW. The five most improved and five highest decliners are presented in Tables 3.14 and 3.15, respectively.

Table 3.14: Creditworthiness Assessment Top Improvers

WSP	2022/23		2023/24		Variance
	Score	Rating	Score	Rating	
Nairobi	29	NO RATING	51	BB	22
Chemususu	29	NO RATING	47	BB	19
Embu	36	B	53	BBB	17
Nakuru Rural	33	B	50	BB	17
Kiambu	29	NO RATING	46	BB	16

Table 3.15: Creditworthiness Assessment Bottom Losers

WSP	2022/23		2023/24		Variance
	Score	Rating	Score	Rating	
Kiamumbi	48	BB	35	B	-13
Elwak	21	NO RATING	8	NO RATING	-13
Kiambere Mwingi	39	B	26	NO RATING	-14
Kirandich	28	NO RATING	13	NO RATING	-16
Nol Turesh	55	BBB	20	NO RATING	-35

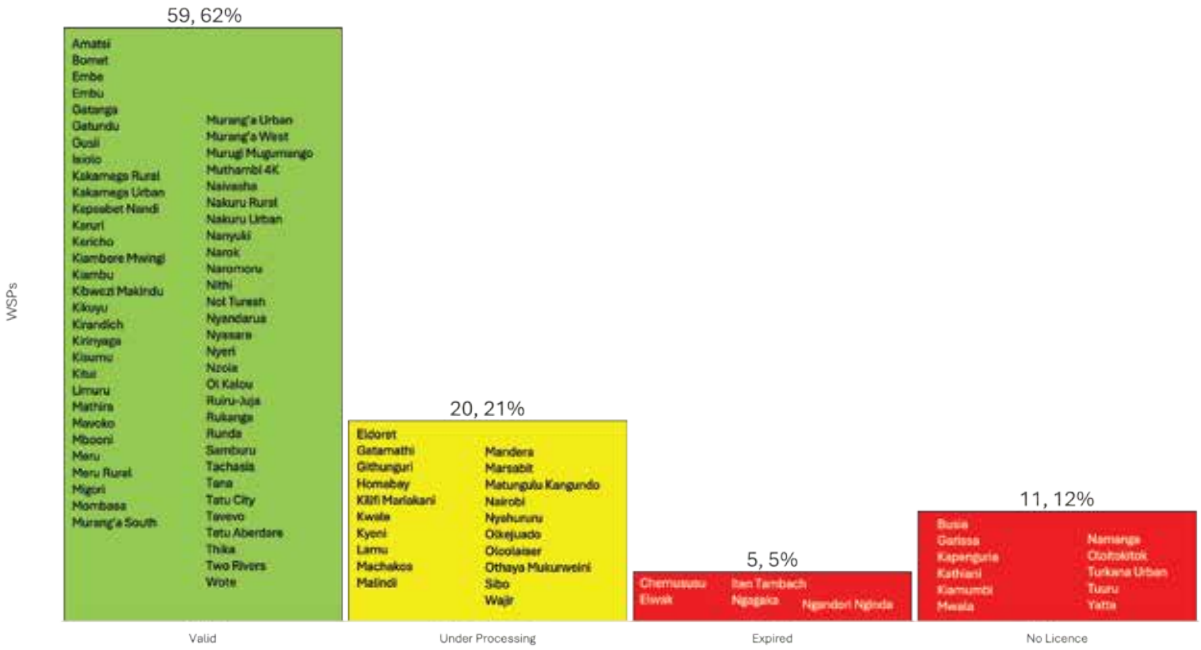
3.6.10 Compliance Status

a) License Compliance

Section 85 of the Water Act 2016 explicitly prohibits the provision of water services without a valid license issued by the Water Services Regulatory Board (WASREB). Holding a valid license is not optional; it is a legal obligation. Operating without one is unlawful and undermines the integrity and safety of water service provision.

During the reporting period, 59 Water Service Providers (WSPs)—representing 62%—held active licenses, demonstrating compliance with regulatory requirements. Meanwhile, 20 WSPs (21%) had their license applications under processing by WASREB, and 5 WSPs (5%) were operating with expired licenses. Alarmingly, 11 WSPs had not made a license application.

Figure 3.36: License Compliance Status as at June 2024



b) Tariff Compliance

Of all the Water Service Providers (WSPs) reviewed, 40—representing 42%—operated with valid, approved tariffs. An additional 25 WSPs (26%) had tariff applications under processing by the regulator. However, 30 WSPs (32%) operated with non-cost-reflective tariffs and had not submitted applications to WASREB for review or adjustment.

This indicates an improvement in compliance, but there is still a significant journey ahead to reach 100% compliance. Operating without cost-reflective tariffs compromises the sustainability and quality of service delivery, as providers may lack sufficient revenue to maintain infrastructure or meet operational costs.

Moreover, it indicates non-compliance with the Tariff Guidelines, which require all WSPs to submit tariff applications at least six months before the expiry of their current tariffs to prevent a lapse in tariff validity.

Figure 3.37: Validity of Tariff as at June 2024

c) Compliance in payment of regulatory levy

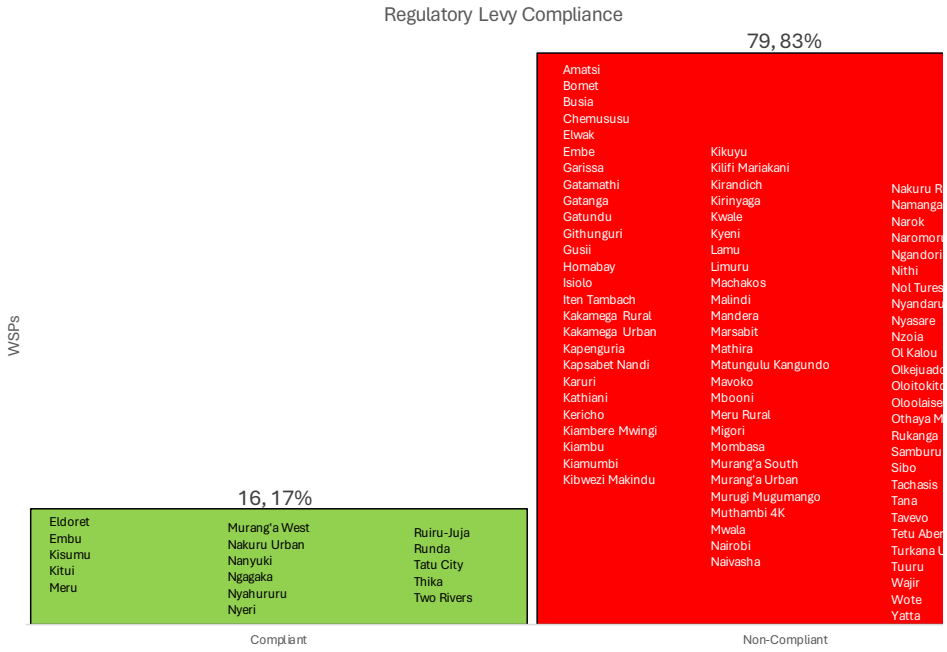
WASREB's ability to regulate effectively is reliant on its financial independence. The regulator must have stable and predictable funding to remain credible, impartial, and responsive. This empowers it to enforce licensing, oversee tariff structures, and monitor service quality without interference.

Financial autonomy—anchored in timely and adequate remittance of regulatory levies—strengthens WASREB's capacity to uphold accountability, protect consumers, and drive sustainable water service delivery nationwide.

Under Gazette Notice No. 12188, Water Service Providers (WSPs) are required to remit 4% of their monthly billing to WASREB by the 15th of the following month.

Non-compliance attracts a daily penalty of Ksh 2,000. Despite this clear requirement, only 17% of WSPs were compliant. The compliant WSPs include Eldoret, Embu, Kisumu, Kitui, Meru, Murang'a West, Nakuru Urban, Nanyuki, Ngagaka, Nyahururu, Nyeri, Ruiru-Juja, Runda, Tatu City, and Thika.

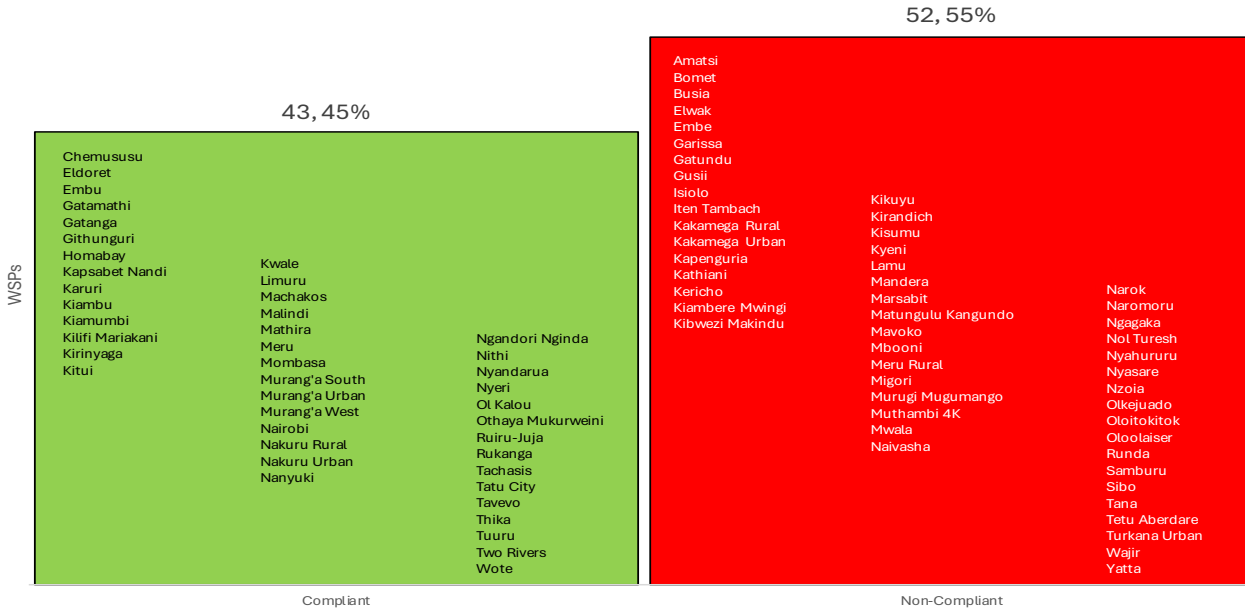
Figure 3.38: Regulatory Levy Compliance



d) Compliance in Reporting

Reporting is a fundamental license condition that is crucial in helping utilities track their performance against key indicators and meet sector standards. WASREB's guidelines specify various mandatory reports that must be submitted regularly. The required reports are highlighted in Section 3.3.

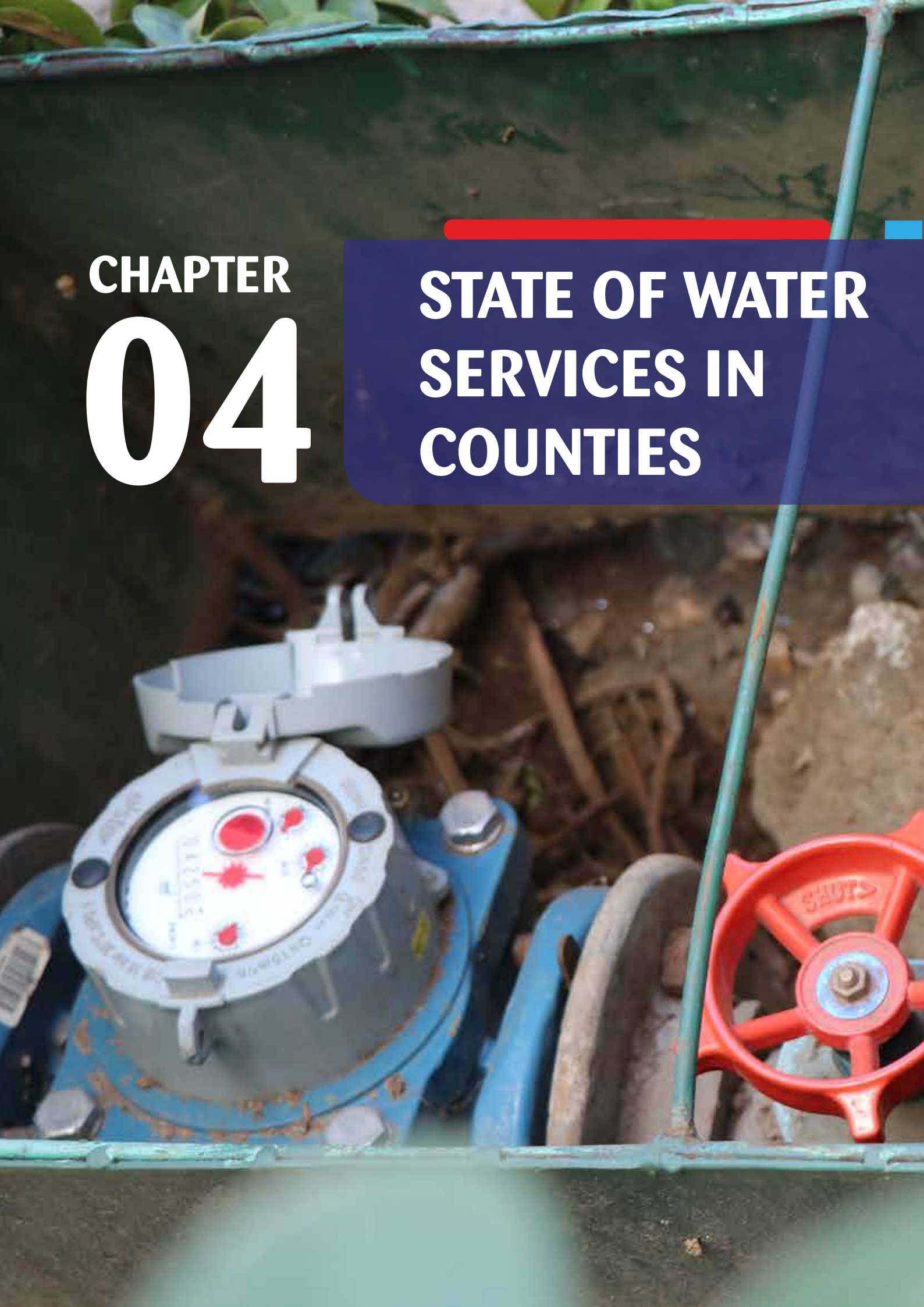
Figure 3.39: Compliance in Reporting



CHAPTER

04

STATE OF WATER SERVICES IN COUNTIES

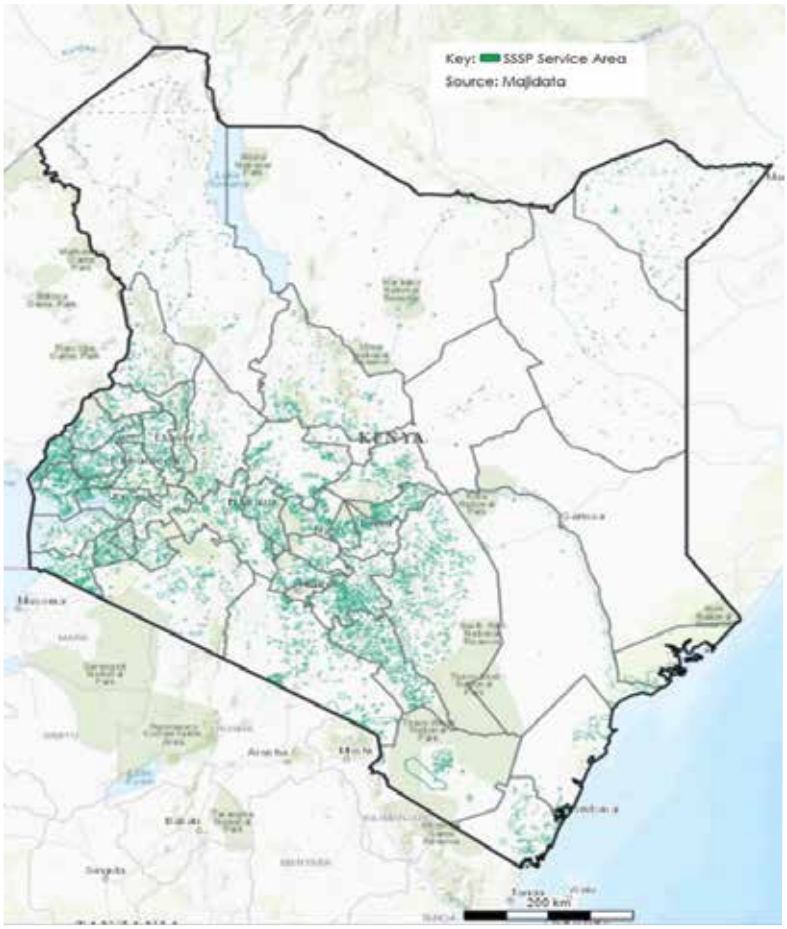


As of the fiscal year 2023/24, the counties have made significant strides in improving water services through infrastructure upgrades, public-private partnerships, and regulatory compliance. Despite these efforts, challenges like inadequate infrastructure and water scarcity persisted. Strategic plans were implemented to tackle these challenges and ensure sustainable water services for everyone.

4.1 Regulation within the Service Area

The regulation within service areas in the counties has seen ongoing efforts to enhance water service delivery. The Water Act 2016 provides the legal foundation for county governments to manage water services, ensuring access to water and sanitation, particularly in underserved areas. The Water Services Regulatory Board (WASREB) plays a crucial role in overseeing the regulation of water services, ensuring compliance with standards for quality, cost, and customer service. WASREB also offers guidelines for clustering water service providers to improve efficiency and service delivery.

The County Governments Act 2012 outlines the functions and powers of county governments, emphasizing the need for sustainable water service delivery policies. Additionally, WASREB has issued specific guidelines to maintain water service standards in rural and underserved areas, aiming to professionalize and formalize their operations, ensuring sustainable investment and the progressive realization of the right to water. Regular performance benchmarking by WASREB helps ensure regulation compliance and identifies areas for improvement.



4.2 Access to Water Services

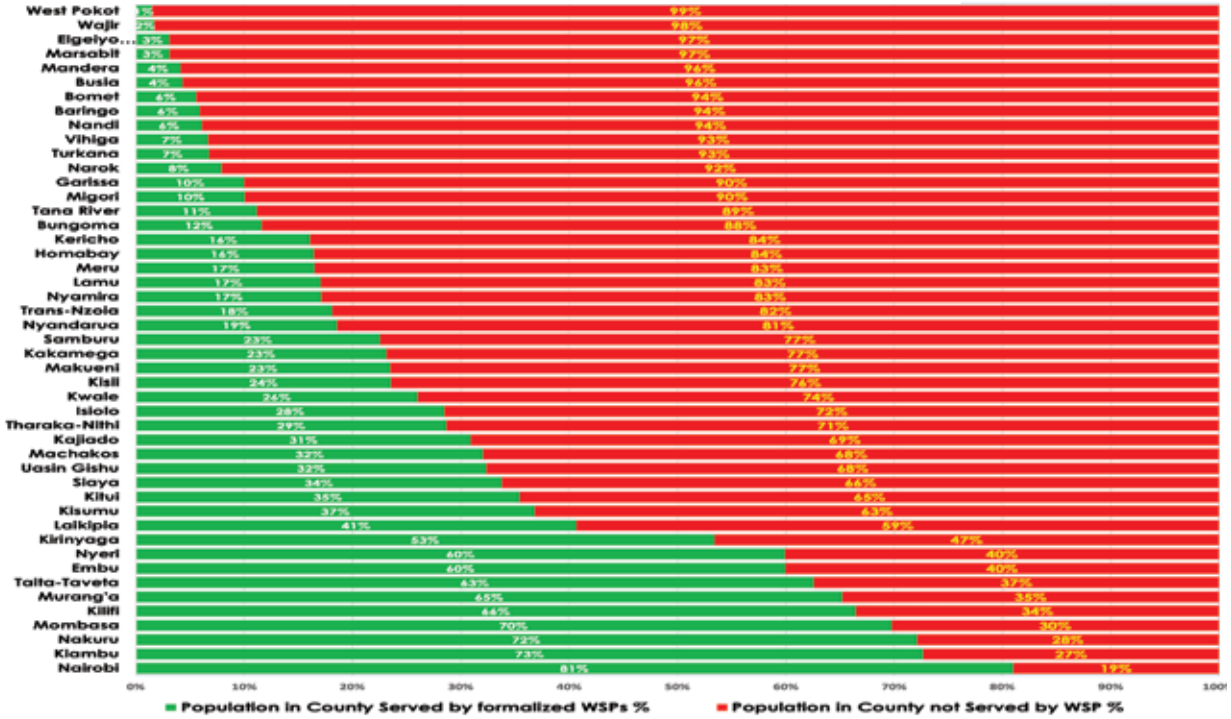
Access to water services varies widely across the 47 counties. As of June 2024, Kenya's population was 52.4 million. Only 30.9 million people lived within WSP service areas, and approximately 21.5 million receive services, including 2.8 million served by small-scale and traceable third-party providers. This means 41% of Kenyans live outside regulated WSP coverage, 46% of Kenyans are served by regulated WSPs and 30% of Kenyans within WSP service areas do not have access to services from regulated WSPs.

Rural and marginalized communities face significant challenges, often relying on contaminated surface water. Lack of access to clean water, proper sanitation, and hygiene facilities disproportionately affects women, children, and vulnerable groups.

To address these issues, WASREB, in collaboration with the County Executive Committee Member in Charge of Water Affairs (CECM), developed modalities for registering Small Scale Service Providers (SSPs). This includes community water projects, gated community water providers, housing development company water projects, and private/individual water operators.

WASREB aims to enhance water service delivery in rural and underserved areas by promoting innovative service provision models. They also focus on strengthening public accountability through greater citizen engagement and oversight, expanded public education initiatives, and consumer clinics. This approach fosters participatory governance and promotes equitable water services for all.

Figure 4.1: Coverage Within Counties



No county in Kenya has achieved 100% access to water and sanitation services. However, the level of access varies significantly across the country. Counties such as West Pokot, Wajir, Elgeyo Marakwet, Mandera, and Busia face significant challenges, with coverage lbelow 5%. In contrast, counties like Mombasa, Kiambu, Nairobi, and Nakuru have made substantial progress, with over 70% of their populations having access to these essential services.

This disparity highlights the urgent need for targeted interventions to improve water and sanitation access in the most underserved regions.

4.3 Strategies for County Water Services

The National Water and Sanitation Investment Plan (NAWASIP) sets ambitious targets to be met by 2030, which include:

- 100% access to safe water (urban and rural),
- 40% sewerage coverage and 100% improved sanitation in urban areas,
- 100% improved rural sanitation, including Open Defecation Free (ODF) status in 13 counties responsible for 79% of open defecation.

The Intergovernmental Relations Technical Committee (IGRTC) outlines distinct roles in the water and sanitation sector: the National Government handles licensing and regulation, while county governments oversee direct service provision, including establishing Water and Sanitation Service Providers (WSPs). Both levels of government are constitutionally mandated to realize the right to water and sanitation progressively.

A key enabler is the operationalization of coordinated efforts under the Water Sector Inter-Governmental Consultation and Cooperation Framework (WSIGCCF), which seeks to ensure effective collaboration between National and County governments, promoting mutual support, expertise-sharing, and resource mobilization.

Additionally, WASREB provides guidance on service delivery models based on the principle that water services are public functions—delegated but not transferred. Counties must ensure full coverage through licensed WSPs who can engage private operators, small-scale service providers or qualified community groups, depending on whether an area is within or outside a WSPs jurisdiction.

County Governments are advised to pursue the following strategies to enhance efficiency in the discharge of their mandates:

Prepare a County-Wide Water and Sanitation Strategy (CWSS) and integrate this strategy into the County Integrated Development Plan (CIDPs) for alignment with overall county development goals.

For the Environment Protection, Water and Natural Resources County Sector Working Groups (CSWG), tasked with prioritizing and formulating sector budget proposals, the County Executive Committee Member (CECM) for water affairs should ensure adequate representation for sector planning. This will assist in establishing dedicated resources to expand water access in underserved and marginalised areas to meet national access targets.

Establish professional service delivery models in the county that align with WASREB guidelines and strengthen the capacity of WSPs, SSPs, and community groups, integrating them into a regulated service framework.

4.4 Coordination of Investments

Coordinating water sector investments at the county level is essential for sustainable and fair access to water and sanitation services. To benefit from economies of scale, funds from different sources must be consolidated to ensure the delivery of value-for-money investment projects. Low-value disaggregation of projects will result in low impact due to poor feasibility studies, planning, and design. Pool resources, consolidate investments, and ensure projects are agreed upon through wide stakeholder consultation.

Achieving universal access to water and sanitation services is a shared mandate. However, counties are central in turning policy into practical outcomes at the grassroots.

Roles and Responsibilities

Water sector investments are coordinated by both the National Government and County Governments. The National Government handles water development, catchment protection, and dam safety while County Governments manage local-level public works, stormwater systems and water and sanitation services.

Intergovernmental Collaboration

Intergovernmental collaboration is essential for the successful coordination of water sector investments. Articles 6 and 189 of the Constitution of Kenya, and the Intergovernmental Relations Act No. 2 of 2012, encourage consultation between the National and County Governments on sectoral issues of common interest. This collaboration fosters better intergovernmental cooperation, coordination, and mutual support. Over time, intergovernmental collaboration in the water sector has improved significantly to achieve key developments, some of which include:

- Establishment of Coordination Structures: To facilitate regular consultations, bodies like the National and County Government Coordinating Summit should be created.
- Consensus Building: Organizing events to enhance dialogue and cooperation on water sector issues.
- Policy Alignment: Efforts to harmonize national and county policies for better water management.
- Capacity Building: Training and technical assistance to strengthen county governments' ability to manage water services.
- Joint Projects: Collaboration on infrastructure development and water conservation initiatives.

4.5 Financing Water Supply and Sanitation (WSS) and Tariff Reforms to Enhance Cost Recovery

To achieve NAWASIP's current goals, an additional Ksh. 82 billion annually is needed beyond current allocations. Counties are expected to actively mobilize and manage part of this financing.

A new intergovernmental conditional transfer scheme has been introduced to promote performance-based reforms. Based on the results, the National Treasury will create an additional budget line—the NAWASIP conditional grant—to transfer funds to counties. County governments must align with reform priorities to access and effectively utilize these funds. Counties should better leverage national funding streams, such as the Equalization Fund. In FY 2023/24, disbursements to the Fund decreased to KSh 363.64 million, with KSh 207.5 million allocated for recurrent expenses and only KSh 156.14 million for development, mainly to clear pending bills. Although the Fund has supported priority water and sanitation projects in marginalized areas, the increasing share of funds spent on administrative costs and declining disbursements limit its capacity.

As the duty bearers for water service provision, county governments need to diversify revenue sources beyond national transfers. They need to enhance their planning, budgeting, and execution capabilities to ensure funds lead to tangible improvements.

Further, they must be at the forefront to champion necessary reforms at the county level water service providers to meet the national targets for resource mobilization, NAWASIP proposes various areas to unlock much needed resources :-Improved staff productivity and reduced Non-Revenue Water (NRW) will generate KSh 31 billion; Adoption of cost-reflective tariffs will raise KSh 45 billion; Enhanced financial health of WSPs will unlock KSh 81 billion in commercial financing for investments.

Counties have the ultimate responsibility for delivering water and sanitation services, and their ability to implement financial reforms, manage resources, and strengthen institutions will be the defining factor in achieving Kenya's universal water and sanitation targets.

4.6 Utility Efficiency

This section provides an overview of the state of water services in the 47 counties during the FY2023/2024, focusing on utility efficiency and efforts to reduce non-revenue water (NRW).

Table 4.1: Distribution of Number of Water Utilities by Counties

	One (1) Utility		Two (2) Utilities	Three (3) Utilities	Five (5) Utilities	Six (6) Utilities	Ten (10) Utilities
Counties	Mombasa	Uasin Gishu	Kilifi	Meru	Embu	Meru	Kiambu
	Kwale	Elgeiyo Marakwet	Mandera	Tharaka-Nithi	Nyeri		
	Tana River	Narok	Kitui	Makueni	Murang'a		
	Lamu	Kericho	Nyandarua	Nakuru	Kajiado		
	Taita-Taveta	Bomet	Kirinyaga	Nairobi			
	Garissa	Vihiga	Nandi				
	Wajir	Bungoma	Baringo				
	Marsabit	Busia	Laikipia				
	Isiolo	Siaya	Kakamega				
	Turkana	Kisumu	Migori				
	West Pokot	Homabay					
	Samburu	Kisii					
	Trans-Nzoia	Nyamira					

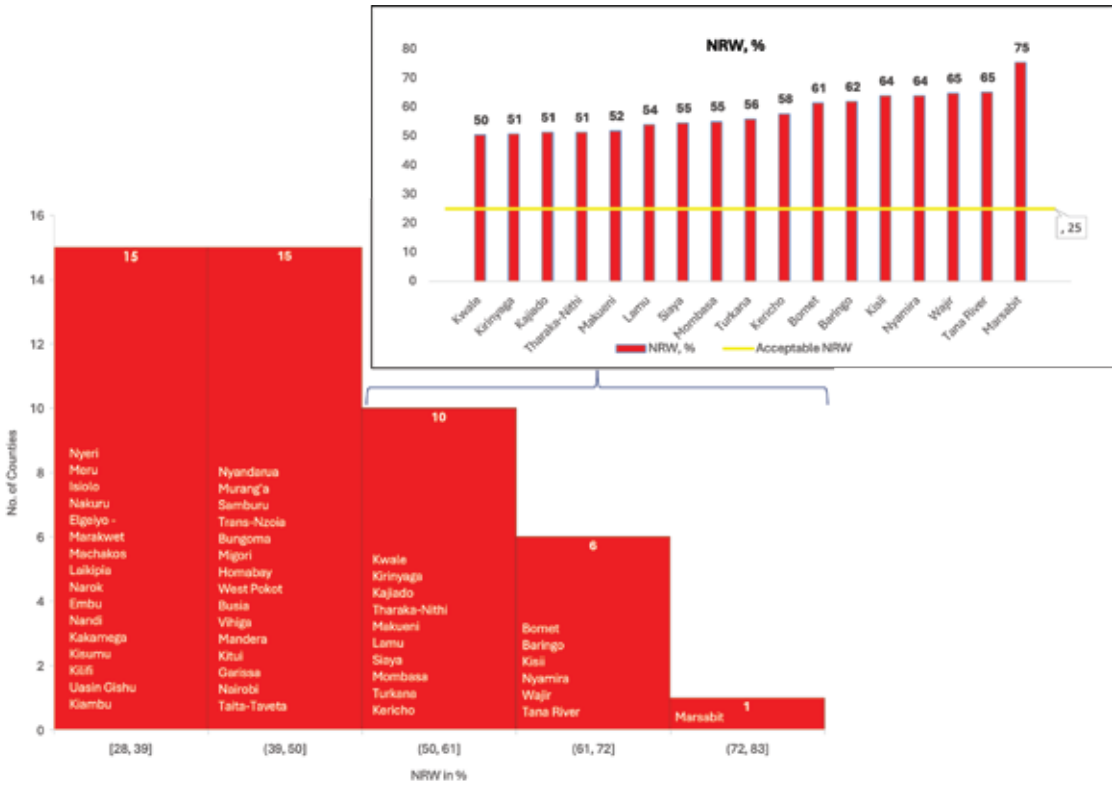
Efficient WSPs are essential for delivering effective water services. They can better manage resources, reduce costs, and improve service quality. However, many counties in Kenya face challenges such as aging infrastructure, insufficient technology, and limited capacity among service providers.

4.6.1 Reducing Non-Revenue Water

Non-revenue water (NRW) refers to water that is produced but not billed to customers due to issues such as leaks, theft, or inaccurate metering. High levels of NRW significantly impact the financial health of water service providers and the overall efficiency of water services. During the review period, NRW levels varied widely across counties, ranging from 28% to 75%. Nyeri County reported the lowest NRW level, while Marsabit County recorded the highest. According to sector standards, NRW levels below 20% are considered optimal, levels between 20% and 25% are acceptable, and levels exceeding 25% are regarded as unacceptable.

The reduction of NRW is capital-intensive and requires the mobilization of resources from various sources to finance this investment.

Figure 4.2: Non- Revenue Water Within the Counties



Assessment of the top 5 (interventions) and proposed interventions for WSPs below sector benchmark

This section evaluates the top five interventions aimed at improving water utility efficiency and reduce non-revenue water (NRW) in the counties. Additionally, it proposes further interventions for WSPs that do not meet the sector benchmark.

Top 5 Interventions

1.Effective Metering:

Smart meters have been installed in counties such as Nairobi and Mombasa. These meters have improved billing accuracy, minimized water losses, and increased customer satisfaction.

2. Pressure Management:

Kisumu and Nakuru have implemented systems to regulate water pressure. These systems have minimized leaks and bursts, thereby enhancing the reliability of the water supply.

3. Infrastructure Upgrades

Murang'a, Nairobi, and Siaya have modernized their pipelines and treatment facilities. These upgrades have significantly reduced physical losses and enhanced service efficiency.

4. Control of Illegal Connections

Nairobi, Kilifi, and Nakuru have formed teams to identify and eliminate illegal connections. These initiatives have decreased commercial losses and improved network integrity.

5. Community Engagement

Siaya, Kwale, and Nairobi engaged local communities in monitoring and reporting leaks and illegal connections. This involvement has increased transparency and accountability in water service delivery.

These interventions have collectively improved the reliability, efficiency, and sustainability of utility services across various counties in Kenya.

Proposed Interventions for WSPs Below Sector Benchmark

The following interventions are proposed to improve the performance of WSPs currently below sector benchmarks. The objective is to ensure that water services across the counties become more reliable, efficient, and sustainable.

- **Enhanced Leak Detection**

WSPs are encouraged to adopt advanced leak detection technologies to promptly identify and repair leaks. This intervention aims to reduce water losses and improve the efficiency of water systems.

- **Capacity Building**

Training programs should be offered to utility staff to enhance their skills in managing and maintaining water systems. This capacity-building initiative is essential for improving service delivery and operational efficiency.

- **Public Awareness Campaigns**

Conducting public awareness campaigns is essential for educating the community about the importance of water conservation and reporting issues. These campaigns can help reduce non-revenue water (NRW) and promote a culture of responsible water usage.

- **Awards and Incentives**

Offering incentives for WSPs that achieve significant reductions in NRW is recommended. These awards and incentives can motivate WSPs to adopt best practices and strive for improved performance.

- **Collaborative Partnerships**

Forming partnerships with non-governmental organizations (NGOs) and private sector entities is recommended to support infrastructure improvements and resource management. Collaborative efforts can enhance the sustainability and effectiveness of utility services.

Table 4.2 highlights the systemic breakdown of interventions considering the level of NRW in the utility.

Stage (Zone)	NRW Range	Recommended Measures (GIS and NRW Monitoring being constant)
1(Red)	≥ 40% or unreliable	- Accurate functional production meters (tested &calibrated) - Elimination of major commercial losses incl. illegal consumption - 100% metering and CIS to eliminate unbilled customers - Timely repair of burst, surface leaks and overflows
2(Yellow)	30% < NRW < 40%	- Intensify Stage-1 measures through routines - Zoning and establishment of functional district metered areas - Pressure management and reduction underground leaks; priority areas - Mapping and monitoring of burst and leakages - Upgrade Pipe materials and fittings to recommended standards - Minimize commercial losses; meter reading, billing handling errors
3 (Green)	24% < NRW ≤ 30%	- Intensify Stage-2 measures through routines - Reduction of underground leaks - Replacing pipes in bursts and leaks prone areas (mapped in stage 2)
4(Blue)	20% < NRW ≤ 24%	- Intensify Stage-3 measures - Accelerate and complete pipe replacements
5(Purple)	NRW ≤ 20%	- Intensify Stage-4 measures - Maintain facilities and skills to sustain the achieved low NRW

4.6.2 Recovery of Operations and Maintenance (O+M) Costs at acceptable benchmark and at desired benchmark

Water services in counties varied significantly, particularly regarding the recovery of Operations and Maintenance (O+M) costs. Many counties struggled to recover the full O+M costs, with some, like Wajir, having an average recovery rate as low as 7%, the lowest among them.

Of Kenya's 47 counties, 31 had water WSPs with recovery rates below 100%. The remaining counties achieved O+M cost recovery rates exceeding 100%, with Garissa County leading at 124%.

Acceptable Benchmark:

The acceptable benchmark for O+M cost recovery is generally 100%, meaning the revenue generated should cover the full O+M costs. This benchmark ensures that water services are financially sustainable and can maintain infrastructure without external subsidies.

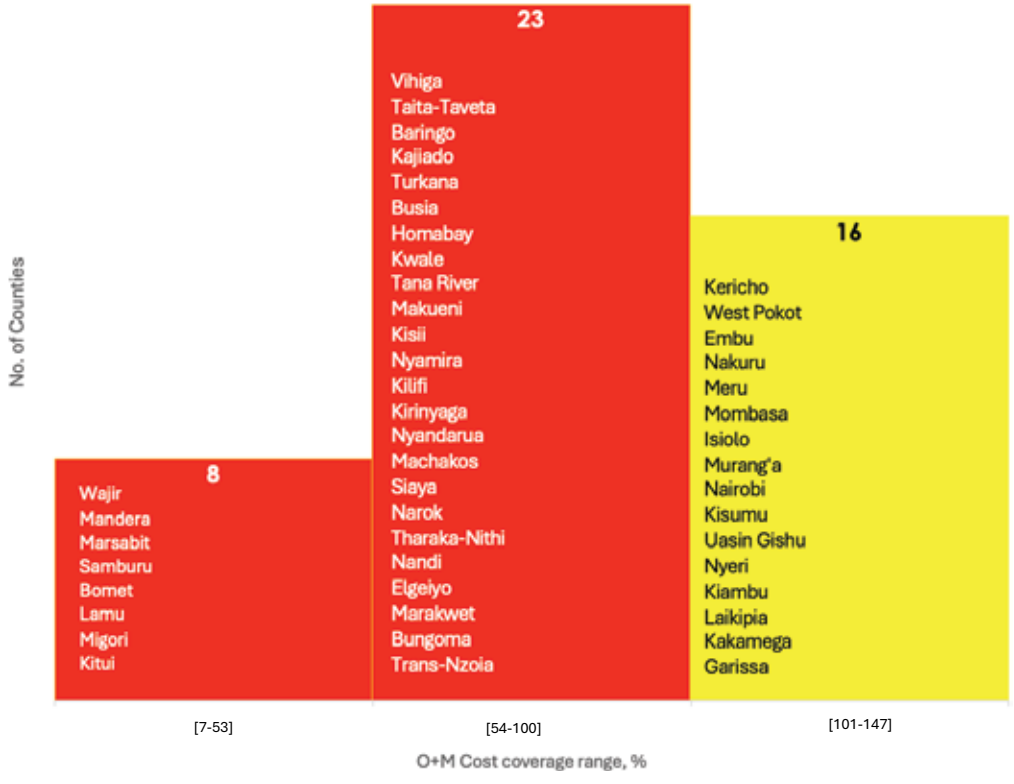
Desired Benchmark:

The desired benchmark often aims higher, incorporating not only O+M costs but also funds for future investments and improvements. This is around 150% and above.

Achieving this level of cost recovery allows for better service quality, infrastructure upgrades, and resilience against financial shocks.

Improving cost recovery involves enhancing billing and collection efficiency, reducing non-revenue water, and ensuring tariffs reflect the true service cost.

Figure 4.3: O+M Cost Coverage Within the Counties

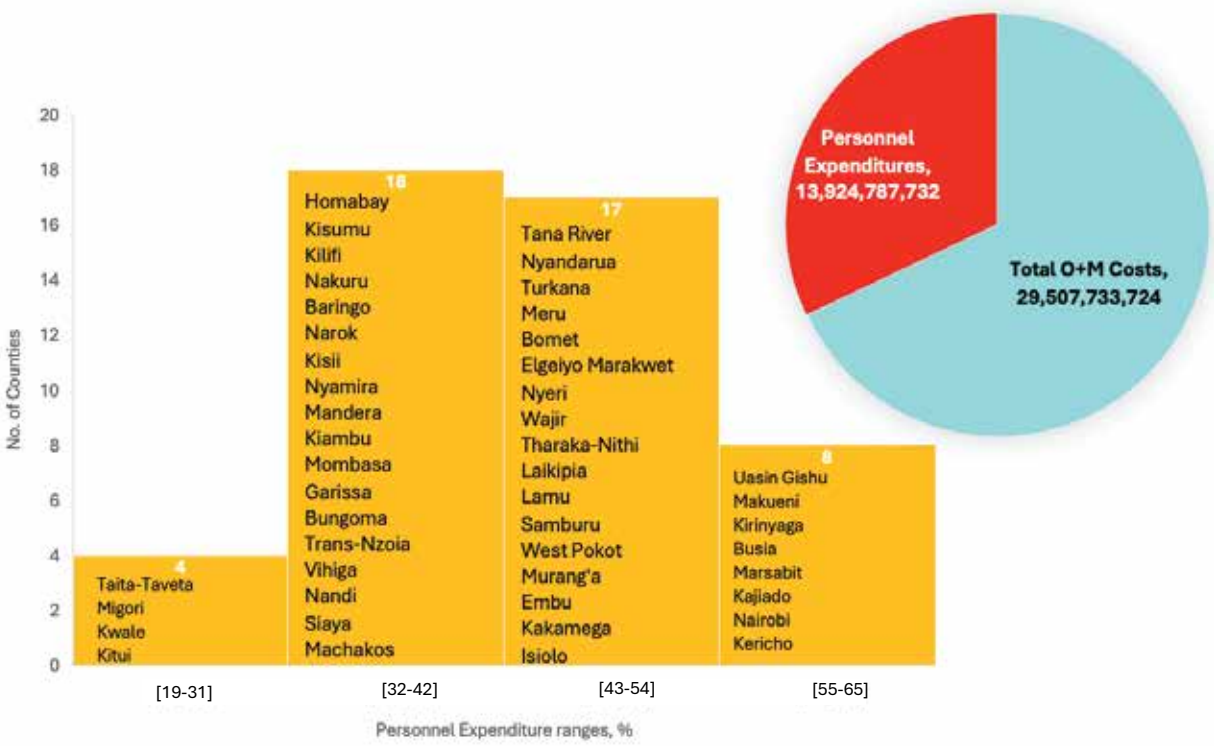


4.6.3 Personnel Expenditure as a Percentage of O+M Costs at acceptable benchmark and at desired benchmark

The state of water services in counties has been assessed with a focus on personnel expenditure as a percentage of Operations and Maintenance (O+M) costs. The acceptable benchmarks for personnel expenditure are 20-30% for large and very large companies, 30-40% for medium companies, and 40-45% for small companies, ensuring efficient and sustainable operations. The desired benchmarks are lower, at 20%, 30%, and 40%, respectively, indicating higher efficiency and allowing more funds for infrastructure and service improvements.

In many counties, personnel costs have exceeded these benchmarks, straining the financial sustainability of water services. To meet these benchmarks, optimizing staffing, improving productivity, and managing personnel costs effectively is important.

Figure 4.4: Personnel Expenditures as a Percentage of O+M Costs

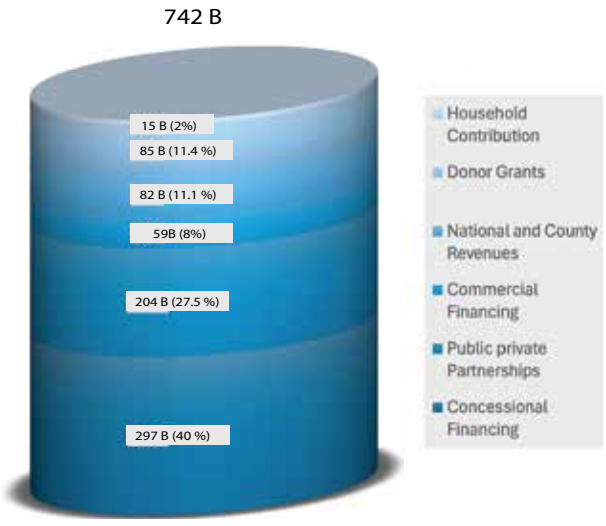


4.6.4 Monitoring Financial Flows

Many counties used financial monitoring systems to track the allocation and use of funds in water services. These systems helped identify discrepancies and ensured that funds were used for their intended purposes. Nevertheless, challenges like inconsistent data collection and limited resources persisted.

In the fiscal year 2023/24, several financiers were actively involved in water and sanitation activities across various counties in Kenya:

- The World Bank supported projects such as the Kenya Water Security and Climate Resilience Project, which focuses on improving water resources management and enhancing resilience to climate change.
- The African Development Bank (AfDB) funded the Kenya Towns Sustainable Water Supply and Sanitation Program, which aims to improve water supply and sanitation services in urban areas.
- UNICEF continued promoting water, sanitation, and hygiene (WASH) programs, particularly in rural and underserved communities.
- The European Union (EU financed initiatives to improve water infrastructure and sanitation services, contributing to better health outcomes and sustainable development.
- USAID remained involved through projects like KIWASH, which has significantly improved water and sanitation services across multiple counties.



These financiers have played a crucial role in advancing water and sanitation services, addressing infrastructure challenges, and promoting sustainable development at the county level.

4.7 County Specific Issues

A. Transitioning Water Management in Bomet and Kericho Counties

Following a joint meeting convened by WASREB and involving the County Governments of Bomet and Kericho, Bomet WSP, Kericho WSP, and Lake Victoria South WWDA, the Governors of Bomet and Kericho Counties, and LVSWWDA formed the Itare–Litein Bulk Water Supply Taskforce. This set the ground for the formation of the Itare-Litein Bulk Water Supply Taskforce. This task force is responsible for managing the smooth transition of the water supply scheme for continuity of supply to the residents of both counties.

B. Proposal to Cluster WSPs in Machakos County

The Machakos Water Sector Reforms Task force was established to explore the clustering of Water Service Providers (WSPs) in Machakos County. The taskforce proposed merging six WSPs: Kathiani, Machakos, Matungulu-Kangundo, Mavoko, Mwala, and Yatta-Masinga Water. They presented their findings to the Water Services Regulatory Board (WASREB). WASREB has not immediately approved the merger. Instead, the taskforce is recommended to conduct a comprehensive root cause analysis to identify the challenges faced by the WSPs and ensure all WSPs operate on valid and updated tariffs.

Additionally, WASREB advised conducting a detailed commercial viability assessment for each WSP and the proposed merged entity. Finally, the task force must develop a clear roadmap to effectively manage human resources, assets, and liabilities. These steps are crucial for improving water service delivery in Machakos County, ensuring that clustering WSPs leads to enhanced efficiency, sustainability, and reliability.

C. Implementation of Sanitation Levy in Nakuru County

Nakuru County is the first to have its Water Service Providers (WSPs) implement a sanitation levy. The WSPs involved are Nakuru Urban WSP and Naivasha WSP.

The details include: -

- All bills will include a sanitation levy, of 5% of the water bill.
- The WSPs will open and maintain a dedicated account for the sanitation levy.
- Funds will be ring-fenced, and any use will require approval from WASREB.

D. Enhancing Water Supply in Nairobi County

In 2023/24, Nairobi County had several new water sources developed to improve the water supply for Nairobi City Water and Sewerage Company, the major water provider in the county. One of the key projects developed by Athi Water Works Development Agency (AWWDA) was the Northern Collector Tunnel 1 (NCT1), completed in 2024. This 11.8 km tunnel collects 40% of floodwater from the Irati, Gikigie, and Maragua rivers, channeling them to the Ndakaini Dam and significantly boosting Nairobi's bulk water supply. Additionally, efforts were made to enhance the capacity and efficiency of the Ruiru Dam, providing a more reliable water source for Nairobi. Furthermore, several new boreholes were drilled across Nairobi to supplement the existing water supply, particularly in underserved areas.

E. Marsabit County Water Service Improvements

Marsabit County has made significant strides in enhancing water services through the Marsabit Water & Sewerage Company (MARWASCO). Firstly, the county has focused on legalizing all communal boreholes by ensuring they have valid permits. This step is crucial for regulating water sources and ensuring sustainable usage. Secondly, MARWASCO conducted a successful tariff review aimed at achieving cost recovery. The new tariffs are designed to reflect the pastoralist community's way of life, including the first tariffs for animal water use. This approach ensures that the tariffs are fair and considerate of local practices.

Thirdly, the county is formalizing rural water services by supporting small-scale service providers in transitioning to Water User Associations (WUAs). In the short term, all water supply systems will operate under delegated models with existing service providers, maintaining their independence. MARWASCO and the County Water Department will assist these providers in improving their performance and guide them through the registration process as WUAs.

Viable WUAs will transition to independent Water Service Providers in the medium to long term. A Rural Water Service Provider will also be established to support non-commercial WUAs, ensuring sustainable water services for all rural communities. These initiatives are part of Marsabit County's broader strategy to improve water service delivery and ensure that all residents have access to reliable and sustainable water sources.

F. The Coast Water Bulk Supply System

This system comprises one bulk water supplier and five off-takers: Mombasa, Malindi, Kilifi-Mariakani, Kwale, and Tavevo Water Service Providers (WSPs). Water is sourced from Mzima Springs (Taita-Taveta County), Marere Springs and Tiwi boreholes (Kwale County), and the Baricho Well Field (Kilifi County). Notably, Mombasa County lacks its own local water sources.

The bulk water unit operates as an autonomous cost center, independently managing billing, revenue collection, and expenditures. This setup promotes accountability and focused management of the bulk water supply system.

However, during the reporting period, none of the off-takers had signed bulk supply agreements or consistently paid their water bills, jeopardizing the system's financial sustainability.

G. Water Supply and Management Challenges in Garissa County

Garissa County manages a single Water Service Provider (WSP) that primarily serves urban areas. The WSP sources water from the Tana River, a reliable year-round water source. During the rainy season, major flooding severely impacted intake works on the Tana River, disrupting consistent water production and supply. These disruptions led to the contamination of water sources.

In rural areas, there is a chronic lack of adequate water supply infrastructure in contrast to operational inefficiencies within the urban public water utility—spanning production, billing, human resources, and financial management. This fragmented service landscape contributed to the emergence of supplementary water service providers. Uneven water distribution and inequitable rationing disproportionately affect vulnerable communities.

H. Need for Governance Reforms for Water Services in Taita - Taveta County

TAVEVO Water and Sewerage Company Ltd faced serious governance and operational challenges during the reporting period, including reduced collection efficiency, leading to increased debtors and non-compliance with regulatory requirements. These issues led to the accumulation of significant debts. Recommendations have been made to restructure the company's board and recover funds lost through irregular financial transactions to address the situation.

Despite these challenges, the County Government of Taita-Taveta has taken proactive measures to enhance governance in the water sector. These initiatives include the drafting of a County Water Bill and Policy designed to improve access to water services and to guide future infrastructure development and oversight.

II. Kajiado County: Challenges Facing Oloolaiser Water and Sewerage Company (OLWASCO)

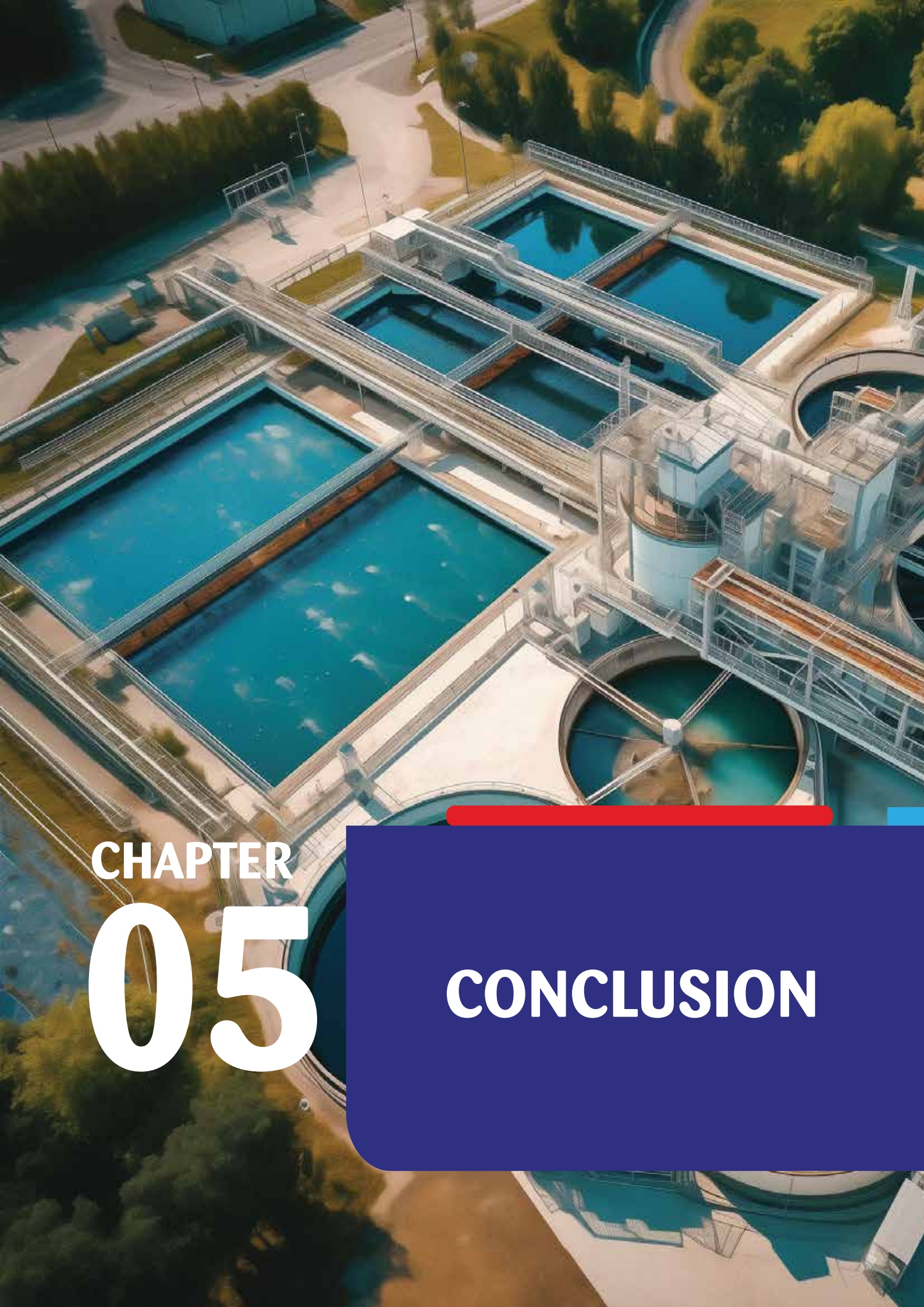
A follow-up inspection conducted by the Water Services Regulatory Board (WASREB) revealed significant challenges at OLWASCO, that threaten its operational effectiveness and service delivery in Kajiado County. The inspection identified issues in financial management, technical operations, human resource practices, and customer service. Given the persistence and materiality of these issues, as well as their impact on OLWASCO's viability, WASREB, in collaboration with the County Government of Kajiado, is considering placing OLWASCO under a Special Regulatory Regime to ensure compliance and safeguard service delivery.

J. Cross-Cutting Issues

Citizens across several counties—Nyeri, Uasin Gishu, Murang'a, and Nyandarua—have challenged the proposed increase in water prices. Many WSPs had not reviewed their tariffs for extended periods, leading to financial difficulties. When tariff adjustments are delayed, the eventual price increase can be substantial, abrupt, and burdensome for consumers.

To address this issue, WASREB now requires WSPs to include a tariff proposal with their licensing applications. Furthermore, WSPs must submit tariff applications at least six months prior to the expiration of the current tariff. They are also required to engage with citizens at the zonal and scheme levels, ensuring that everyone has the opportunity to participate in the review process, voice their concerns, and have their input considered.

Various WSPs in the county have reported incidents of vandalism targeting water infrastructure, which WASREB has strongly condemned. Ongoing efforts aim to engage the community in decision-making processes to ensure their concerns are addressed and to identify sustainable solutions to the challenges



CHAPTER

05

CONCLUSION

Urgent Action Needed – The Time to Act is Now!

Universal access to safe, reliable, and affordable water and sanitation is critical to advancing national development, public health, and social equity. However, progress is lagging behind national targets, especially in underserved areas, highlighting the urgent need to accelerate action. As the 2030 deadline for global commitments approaches, it is imperative to prioritize scaling up investments, strengthening institutions, and fostering coordinated efforts among all stakeholders. The following areas are recommended for focused attention moving forward.

5.1 Improving Access

The National Water and Sanitation Investment Plan (NAWASIP) estimates that the sector requires Ksh 995 billion over the next seven years, which equates to approximately Ksh 142 billion annually, to meet national targets. However, the actual funding for the current period stood at Ksh 44.682 billion, covering just 31.5% of the required amount. This translates to a per capita investment of USD 6.5, b significantly below the USD 25 benchmark identified in the National Master Plan 2030.

In addition, approximately 70% of current sector financing depends on contributions from development partners, which underscores a vulnerability in the sector's long-term financial stability. To mitigate this dependency and build resilience, there is an urgent need to increase proportion of financing derived from internally generated funds (IGFs), particularly through domestic revenue mobilization strategies such as taxes, cost-reflective tariffs, and efficiency gains.

Strengthening domestic financing mechanisms, improving utility performance, and creating a supportive policy environment for investment are crucial for bridging the funding gap and ensuring universal, sustainable access to water and sanitation services.

5.2 Chronic Investment Gap

According to the NAWASIP, the water and sanitation sector requires an additional Kshs 652 billion—beyond current "business as usual" investments—to achieve universal access. Bridging this financing gap will require a strategic combination of resource mobilization and internal sector reforms.

As the sector explores alternative and blended financing models, it must continue to implement reforms to improve operational efficiency. Evidence shows that WSPs can increase revenues by up to 70%—without raising tariffs through improving revenue collection, reducing water losses (Non-Revenue Water), and optimizing cost.

To fully realize this potential, WSPs must implement realistic and time-bound strategies for reducing Non-Revenue Water (NRW) alongside comprehensive efficiency measures aimed at lowering operational costs.

Additionally, stronger investment coordination and improved capital efficiency are essential, supported by a clear framework for tracking and reporting impacts.

Finally, the sector should sustain and expand the shift toward performance-based financing, ensuring that future funding is closely tied to measurable service improvements and outcomes. This integrated approach will be critical to unlocking the resources and efficiency gains necessary to chieve national targets and provide safe water and sanitation for all.

5.3 Water Losses

Non-Revenue Water (NRW) continues to pose a significant challenge to the sector's financial viability and service delivery capacity of the sector. With total billings amounting to Ksh 28.86 billion and current NRW levels at 44%, the estimated value of water lost during the reporting period is Ksh 12.37 billion, even after considering for the acceptable loss threshold of 20%.

These losses represent a significant drain on sector resources—funds that could otherwise be allocated to infrastructure investment, service expansion, and quality improvements. High NRW levels not only jeopardize financial sustainability but also impose indirect costs on consumers and impede progress toward national development goals.

Reducing NRW is, therefore, a critical policy priority. It requires targeted investments, enhancements in operational efficiency, and increased accountability from utilities. Addressing this issue is essential for achieving water security, improving customer outcomes, and supporting the country's broader vision of economic growth and higher living standards.

5.4 Commercial Viability of the WSPs

The current analysis indicates a modest improvement in utility cost coverage, rising by three percentage points during the current reporting period. However, at 98%, cost recovery remains significantly below the sector target of 150% and further falls short of the 110% threshold required to sustain existing service levels.

This financial gap is further exacerbated by a decline in external funding from taxes and development partners, underscoring the urgent need to revise tariff structures. Without realistic and gradual tariff adjustments, WSPs cannot meet operational costs, maintain infrastructure, or expand access, ultimately threatening the sector's long-term viability.

To ensure financial sustainability and continued service delivery, policy measures must support cost-reflective tariffs while balancing affordability concerns through targeted subsidies and social protection mechanisms. Addressing resistance to tariff reforms through stakeholder engagement and transparent communication is essential to securing public support and advancing sector resilience.

5.5 Tackling Governance Challenges

Persistent governance challenges continue to impede progress in the water and sanitation sector. The regulator is undertaking a study to assess accountability mechanisms across the sector to support evidence-based reform. This effort aims to identify governance gaps at all levels—from policy to service delivery—and inform targeted interventions.

The recently enacted Water Services Regulations 2025 is expected to play a pivotal role in this process, providing a stronger legal and regulatory framework to enhance accountability, improve institutional performance, and drive more effective service delivery.

5.6 Enhancing Resilience

Climate change is increasingly impacting water availability and quality, posing a direct threat to the reliability and sustainability of water and sanitation services. As climate variability intensifies, the sector must adopt adaptive strategies that strengthen the resilience of infrastructure and service delivery systems.

Enhancing climate resilience will ensure continued access to safe water and sanitation, even under changing environmental conditions. This is essential for safeguarding water security, supporting sustainable development, and promoting social equity.

To achieve this, all sector stakeholders, governments, regulators, service providers, and development partners must prioritize climate-responsive planning, investment, and policy action. A coordinated approach will be key to addressing climate-related risks and ensuring that water and sanitation services remain inclusive, sustainable, and resilient in a changing climate.

ANNEXES

ANNEX 1: METHODOLOGY FOR QUALITY OF SERVICE KPIs

KPI CLUSTER	Indicator	Indicator elements	Computation
QUALITY OF SERVICE	Water Coverage	Population served through individual connections-A	Total No. of active connections * Average household size The average household size is derived from the census data and is unique for each area The allowed per capita consumption is 20l/c/day and 10l/c/day for domestic and communal water points respectively
		Population served through yard taps-B	Total No. of active yard taps * Average No. of households served by a yard tap * Average household size Allowed range of average number of households per yard tap is 4-10
		Population served through small MDUs-C	Total No. of active small MDUs * Average No. of households per small MDU * Average household size Allowed range of average number of households per small MDU is 4-10
		Population served through medium MDUs-D	Total No. of active medium MDUs * Average No. of households per medium MDU * Average household size Allowed range of average number of households per medium MDU is 11-20
		Population served through large MDUs-E	Total No. of active large MDUs * Average No. of households per large MDU * Average household size Allowed average number of households per large MDU is >21
		Population served through Kiosks-F	Total No. taps (depends on kiosk type) * Average No. of people served per tap Allowed range for kiosks is 100-400 people Sublocation population is derived from Census data and growth rates applied appropriately
		Number of people served	A+B+C+D+E+F
		Population in Service area	Sum population of all sublocations within the WSP service area
		Water Coverage	Number of people served with water services/ Population in Service area
	Drinking Water Quality	Compliance with planned no. of residual chlorine tests	Σ total no. of residual chlorine tests conducted of all the schemes within the WSP service area / Σ total no. of residual chlorine tests planned of all the schemes within the WSP service area * 100
		Compliance with residual Chlorine standards	Σ total no. of residual Chlorine tests within norm for all the schemes within the WSP service area / Σ total no. of residual Chlorine tests conducted for all the schemes within the WSP * 100
		Drinking Water quality, Residual Chlorine	0.6 * Compliance with planned no. of residual chlorine tests + 0.4 * Compliance with residual Chlorine standards
		Compliance with planned no. of bacteriological tests	Σ total no. of bacteriological tests conducted of all the schemes within the WSP service area / Σ total no. of bateriological tests planned of all the schemes within the WSP * 100
		Compliance with bacteriological standards	Σ total no. of bacteriological tests within norm for all the schemes within the WSP service area / Σ total no. of bacteriological tests conducted for all the schemes within the WSP * 100
		Bacteriological quality	0.6 * Compliance with planned no. of bacteriological tests + 0.4 * Compliance with bacteriological standards
		Drinking Water Quality	0.4 * Drinking Water quality, Residual Chlorine + 0.6 * Bacteriological quality
	Hours of Supply	This is the average no. of hours water services are provided per day of all the zones within a scheme	Weighted average of all registered zones, factoring no. of active connections ((hrs*Number of active connections, zone 1) + (hrs*Number of active connection, zone 2) + (hrs*Number of active connection, zone n)

ANNEX 2: METHODOLOGY FOR ECONOMIC EFFICIENCY KPIs

KPI CLUSTER	Indicator	Indicator elements	Computation
ECONOMIC EFFICIENCY	Personnel Expenditure as a Percentage of O&M Costs	Total personnel expenditures	Sum of personnel expenditures incurred during the reporting period They include basic salaries, allowances, wages, gratuity, statutory and pension contributions by employer, subscriptions and training levy, leave, Incentives (Bonus) & Any other personnel expenditure.
		Personnel Expenditure as a Percentage of O&M Costs	(Total personnel expenditures / Total O+M)*100
	Operation and Maintenance Cost Coverage	Total operating revenues A	Sum of billing for water, sewerage and other services Billing for other services include charges on connection and reconnection, illegal connections, meter rent, meter testing , replacement of stolen meters and exhauster services.
		Total operating expenditures B	Sum of expenses on personnel, BoD, General admin, direct operations, maintenance and levies and fees. 1. Direct operational expenditures include electricity, chemicals and fuel for vehicles. 2. Levies and fees include water abstraction fees,WSB fees,effluent discharge fees and regulatory levy.
		Operation and Maintenance Cost Coverage	(A/B)*100
	Revenue Collection Efficiency	Total water and sewerage billing amount -A	Total amount of all bills on water and sewerage services during the reporting period of all the schemes within the WSP service area
		Total billing for other services -B	Total of all billing for other services of all the schemes within the WSP service area
		Total billing	A + B
		Total collection	Sum of all revenue collected of all the schemes within the WSP service area
		Collection Efficiency	(Total Collection/Total Billing)*100

ANNEX 3: METHODOLOGY FOR OPERATIONAL SUSTAINABILITY KPIs

KPI CLUSTER	Indicator	Indicator elements	Computation
OPERATIONAL SUSTAINABILITY	**Non-Revenue Water**	Commercial Losses (Apparent Losses)	Unauthorized consumption (e.g. illegal connections) + Customer meter reading inaccuracies, Estimates and Data Handling errors
		Physical Losses B	Leakages on transmission and /or distribution pipes + Leakages and overflows at utility storage tanks + Leakage on service connections upto the point of cutomer use
		Non-Revenue Water	(A+B/ Volume of water water produced)*100
	Metering Ratio	Total number of active water connections	Sum of all active individual, MDU, yard taps, institutional, schools', commercial, industrial, bulk and other water connections of all the schemes within a WSP service area
		Total number of active metered water connections	Sum of all active individual, MDU, yard taps, institutional, commercial, industrial, schools', bulk and other water connections of all the schemes within a WSP service area that are metered
		Metering Ratio	(Total number of active metered connections/Total number active of connections)*100
	Staff Productivity	The total number of staff divided by the total number of connections within the WSP service area	Total number of staff in the utility/(total number of active water connections + total number of sewer connections)

ANNEX 4: COMPONENTS OF DRINKING WATER

Utility	DWQ - Residual Chlorine (%)	DWQ - Bacteriological Quality (%)	DWQ (%)
Nairobi	95	96	95
Eldoret	89	100	93
Mombasa	98	88	92
Nyeri	100	100	100
Nzoia	97	100	93
Nakuru Urban	100	100	100
Ruiru-Juja	99	100	100
Kisumu	100	100	100
Thika	100	100	100
Murang'a South	100	100	100
Embu	100	100	100
Kilifi Mariakani	97	95	96
Gatundu	99	47	68
Kirinyaga	100	100	100
Kakamega Urban	100	100	93
Malindi	100	100	100
Kericho	100	100	100
Othaya Mukurweini	100	100	100
Nakuru Rural	100	100	100
Tavevo	73	99	89
Murang'a Urban	100	100	100
Mathira	100	100	100
Gusii	99	99	99
Nanyuki	100	100	100
Murang'a West	100	100	100
Nyahururu	100	100	100
Kwale	100	96	98
Meru	100	100	100
Bomet	62	43	51
Sibo	41	47	45
Ngandori Nginda	100	100	93
Kitui	96	100	98
Kikuyu	-	84	50
Nithi	99	100	100
Tetu Aberdare	100	100	100
Mavoko	100	40	64
Garissa	100	63	78
Isiolo	100	100	100
Gatamathi	99	100	99
Kiambu	100	96	98
Gatanga	100	99	99
Limuru	100	96	93
Naivasha	100	98	93
Oloolaiser	95	86	90
Ngagaka	96	100	99
Githunguri	93	97	96
Turkana Urban	82	-	33
Homabay	100	100	100

Utility	DWQ - Residual Chlorine (%)	DWQ - Bacteriological Quality (%)	DWQ (%)
Amatsi	95	95	93
Meru Rural	100	100	93
Karuri	75	59	66
Busia	100	99	93
Machakos	100	100	100
Kyeni	-	-	-
Kiambere Mwingi	100	100	93
Kibwezi Makindu	100	86	92
Tuuru	-	-	-
Nyandarua	100	65	79
Migori	100	100	93
Narok	98	52	70
Samburu	86	80	83
Embe	98	100	93
Nol Turesh	61	99	84
Tana	98	54	72
Chemususu	69	37	50
Kapsabet Nandi	100	100	100
Kirandich	61	87	77
Murugi Mugumango	-	35	21
Lamu	98	96	93
Iten Tambach	98	97	93
Kakamega Rural	100	100	93
Mandera	96	79	86
Ol Kalou	100	37	62
Olkejuado	-	-	-
Kapenguria	-	-	-
Muthambi 4K	-	38	23
Wote	100	100	100
Naromoru	25	71	52
Elwak	-	-	-
Oloitokitok	-	-	-
Rukanga	95	95	95
Namanga	1	-	1
Yatta	100	50	70
Tatu City	100	100	100
Kiamumbi	100	100	100
Wajir	44	100	78
Matungulu Kangundo	-	39	23
Nyasare	100	100	93
Tachasis	99	92	95
Runda	100	100	93
Kathiani	95	63	76
Mwala	75	39	53
Two Rivers	100	100	93
Mbooni	100	100	100
Marsabit	100	100	93

ANNEX 5: PRO-POOR ASSESSMENT

Rank	Utility	Size	PRO-POOR PARAMETERS				Total	Weighted score (%)
			Governance	Impact	Planning	Financing		
1	Naivasha	L	18	30	16	14	78	100%
1	Nyeri	VL	18	30	16	14	78	100%
2	Nakuru Urban	VL	18	29	16	14	77	99%
3	Nakuru Rural	L	18	27	16	14	75	96%
4	Kisumu	VL	18	29	11	12	70	90%
5	Kakamega	VL	18	29	11	12	70	90%
6	Eldoret	VL	10	27	16	14	67	86%
7	Mathira	L	16	23	12	14	65	83%
8	Thika	VL	18	20	14	14	66	85%
9	Gusii	L	16	22	14	14	66	85%
10	Murang'a Urban	L	16	24	12	12	64	82%
11	Mombasa	VL	14	25	11	12	62	79%
12	Sibo	L	16	26	7	12	61	78%
13	Embu	VL	18	17	14	14	63	81%
14	Nairobi	VL	18	17	14	14	63	81%
15	Kwale	L	17	19	11	14	61	78%
16	Kiambu	L	18	15	12	14	59	76%
17	Kericho	VL	12	25	10	10	57	73%
18	Gatamathi	L	16	16	11	14	57	73%
19	Tavevo	L	12	22	10	12	56	72%
20	Nyahururu	L	18	15	11	12	56	72%
21	Murang'a South	VL	14	17	12	14	57	73%
22	Homabay	L	12	21	13	10	56	72%
23	Tetu Aberdare	L	18	14	12	10	54	69%
24	Nanyuki	L	12	21	11	8	52	67%
25	Bomet	L	16	17	10	8	51	65%
26	Amatsi	L	18	13	10	10	51	65%
27	Malindi	VL	14	17	10	10	51	65%
28	Kirinyaga	VL	16	12	10	10	48	62%
29	Yatta	S	5	24	7	10	46	59%
30	Kahuti	L	16	8	10	14	48	62%
31	Meru Urban	L	16	13	10	6	45	58%
32	Ruiru-Juja	VL	12	9	16	12	49	63%
33	Machakos	L	14	10	11	10	45	58%
34	Kilifi Mariakani	VL	12	23	4	0	39	50%
35	Mavoko	L	12	9	10	14	45	58%
36	Garissa	L	16	4	12	12	44	56%
37	Ol Kalou	S	6	19	5	12	42	54%
38	Isiolo	L	12	11	10	10	43	55%
39	Kikuyu	L	6	16	7	12	41	53%
40	Oloolaiser	L	10	9	11	12	42	54%
41	Nithi	L	8	13	11	8	40	51%
42	Chemusus	M	10	12	8	6	36	46%
43	Kapsabet Nandi	M	9	9	5	14	37	47%
44	Nyasare	S	4	13	10	10	37	47%
45	Kitui	L	4	21	6	0	31	40%
46	Migori	M	8	10	7	10	35	45%
47	Limuru	L	6	14	4	8	32	41%
48	Gatanga	L	16	7	4	0	27	35%
49	Narok	M	4	20	0	0	24	31%
50	Karuri	L	6	13	6	0	25	32%
51	Mandera	S	11	1	6	10	28	36%
52	Elwak	S	14	6	0	0	20	26%
53	Wote	S	6	2	6	10	24	31%
54	Kiambere Mwingi	L	0	16	0	0	16	21%
55	Meru Rural	L	8	3	0	4	15	19%
56	Nyandarua	M	0	12	0	0	12	15%
57	Lamu	M	0	9	2	0	11	14%
58	Kibwezi Makindu	L	0	8	2	0	10	13%
59	Nol Turesh	M	2	2	0	0	4	5%
60	Tana	M	0	4	0	0	4	5%
61	Kapenguria	S	0	1	0	0	1	1%

ANNEX 6: COMPLIANCE ASSESSMENT

PARAMETER / UTILITY	Validity of Tariff as at June 2024	Licensing Status as at June 2024	Levy Compliance	Reporting Compliance	Overall Compliance
Very Large (≥35,000 connections)					
Nairobi	Valid	Under Processing	Non-Compliant	Compliant	Non-Compliant
Eldoret	Valid	Under Processing	Compliant	Compliant	Compliant
Mombasa	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Nyeri	Valid	Valid	Compliant	Compliant	Compliant
Nzoia	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Nakuru Urban	Under Processing	Valid	Compliant	Compliant	Compliant
Ruiru-Juja	Under Processing	Valid	Compliant	Compliant	Compliant
Kisumu	Valid	Valid	Compliant	Non-Compliant	Non-Compliant
Thika	Valid	Valid	Compliant	Compliant	Compliant
Murang'a South	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Embu	Under Processing	Valid	Compliant	Compliant	Compliant
Kilifi Mariakani	Valid	Under Processing	Non-Compliant	Compliant	Non-Compliant
Gatundu	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Kirinyaga	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Kakamega Urban	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Malindi	Valid	Under Processing	Non-Compliant	Compliant	Non-Compliant
Kericho	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Othaya Mukurweini	Under Processing	Under Processing	Non-Compliant	Compliant	Non-Compliant
Large (10,000-34,999 connections)					
Nakuru Rural	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Tavevo	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Murang'a Urban	Under Processing	Valid	Non-Compliant	Compliant	Non-Compliant
Mathira	Under Processing	Valid	Non-Compliant	Compliant	Non-Compliant
Gusii	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Nanyuki	Under Processing	Valid	Compliant	Compliant	Compliant
Murang'a West	Under Processing	Valid	Compliant	Compliant	Compliant
Nyahururu	Under Processing	Under Processing	Compliant	Non-Compliant	Non-Compliant
Kwale	Valid	Under Processing	Non-Compliant	Compliant	Non-Compliant
Meru	Under Processing	Valid	Compliant	Compliant	Compliant
Bomet	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Sibo	Valid	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Ngandori Nginda	Valid	Expired	Non-Compliant	Compliant	Non-Compliant
Kitui	Valid	Valid	Compliant	Compliant	Compliant
Kikuyu	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Nithi	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Tetu Aberdare	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Mavoko	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Garissa	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Isiolo	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Gatamathi	Valid	Under Processing	Non-Compliant	Compliant	Non-Compliant
Kiambu	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Gatanga	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Limuru	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Naivasha	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Ololaiser	Under Processing	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Ngagaka	Valid	Expired	Compliant	Non-Compliant	Non-Compliant
Githunguri	Lapsed	Under Processing	Non-Compliant	Compliant	Non-Compliant
Turkana Urban	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Homabay	Valid	Under Processing	Non-Compliant	Compliant	Non-Compliant
Amatsi	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Meru Rural	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Karuri	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Busia	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Machakos	Under Processing	Under Processing	Non-Compliant	Compliant	Non-Compliant
Kyeni	Lapsed	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Kiambere Mwingi	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Kibwezi Makindu	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Medium (5,000-9,999 connections)					
Tuuru	Lapsed	No Licence	Non-Compliant	Compliant	Non-Compliant
Nyandarua	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Migori	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Narok	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Samburu	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Embe	Under Processing	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Nol Turesh	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Tana	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Chemususu	Under Processing	Expired	Non-Compliant	Compliant	Non-Compliant
Kapsabet Nandi	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Kirandich	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Murugi Mugumango	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Lamu	Lapsed	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Small (<5,000 connections)					
Iten Tambach	Lapsed	Expired	Non-Compliant	Non-Compliant	Non-Compliant
Kakamega Rural	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Mandera	Lapsed	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Ol Kalou	Under Processing	Valid	Non-Compliant	Compliant	Non-Compliant
Olkejuado	Under Processing	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Kapenguria	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Muthambi 4K	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Wote	Under Processing	Valid	Non-Compliant	Compliant	Non-Compliant
Naromoru	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Elwak	Lapsed	Expired	Non-Compliant	Non-Compliant	Non-Compliant
Oloitokitok	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Rukanga	Lapsed	Valid	Non-Compliant	Compliant	Non-Compliant
Namanga	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Yatta	Under Processing	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Tatu City	Lapsed	Valid	Compliant	Compliant	Non-Compliant
Kiamumbi	Lapsed	No Licence	Non-Compliant	Compliant	Non-Compliant
Wajir	Lapsed	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Matungulu Kangundo	Valid	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant
Nyasare	Valid	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Tachasis	Valid	Valid	Non-Compliant	Compliant	Non-Compliant
Runda	Valid	Valid	Compliant	Non-Compliant	Non-Compliant
Kathiani	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Mwala	Lapsed	No Licence	Non-Compliant	Non-Compliant	Non-Compliant
Two Rivers	Valid	Valid	Compliant	Compliant	Compliant
Mbooni	Lapsed	Valid	Non-Compliant	Non-Compliant	Non-Compliant
Marsabit	Under Processing	Under Processing	Non-Compliant	Non-Compliant	Non-Compliant

ANNEX 7: CREDITWORTHINESS ASSESSMENT GUIDE

Indicators	Definition	Source	Weight	4	3	2	1	0
Economic Indicators								
Poverty Rate	County poverty rates are derived simply by dividing the total number of poor people in each county in by the total population in each county	KNBS	3	0-20	20-40	40-60	60-80	80-100
Operational Indicators								
Sewerage Coverage	Number of people served with Sewerage Services/ Population of area	WARIS	1	100	90-100	80-90	70-80	<70
Water coverage	Number of people served with Water Supply Services/ Population of area	WARIS	1	100	90-100	80-90	70-80	<70
NRW	Total Volume of Water Lost from Commercial and Physical Losses as a proportion of Water Produced	WARIS	5	<20%	20-30%	30-40%	40-50%	>50%
No of staff per 1000 connections	Number of Staff Members/(Total number of Connections/1000)	WARIS	3	<5	6	7	8	>8
Financial Indicators								
Revenue Indicators								
Total revenue (Excl Grants)	Total revenue from water & sewerage sales & other income	WARIS	0	N/A	N/A	N/A	N/A	N/A
Revenue Diversification	The difference between the % residential revenue and %institutional	WARIS	6	<10%	10-30%	30-50%	50-70%	>70%
Average tariif Differential	The difference between Average tariff per cubic metre and Production cost per cubic metre.	WARIS	8	>50%	35-50%	20-35%	5-20%	<5%
Cost Indicators								
Total Opex	Total Operational & Maintenance Expenditure	WARIS	0	N/A	N/A	N/A	N/A	N/A
Maintenance costs as % of opex	Total Maintenance Costs divided by total operations and maintenance expenditure	WARIS	3	>8%	6-8%	6-4%	0-4%	>0%
Electricity as % of opex	Total Electricity Costs divided by total operations and maintenance expenditure	WARIS	2	<10%	10-15%	15-20%	20-25%	>25%
Employee Costs costs /Total Opex	The Salary Costs as a % of Total OPEX	WARIS	2	<25%	25-30%	30-35%	35-40%	>40%
Percentage O&M coverage	Total revenue from water and sewerage sales divided by total operations and maintenance expenditure	WARIS	4	>130%	120-130%	110-120%	100-110%	<100%
Grant dependency for opex	The proportion of OPEX financed by income from Grants	WARIS	3	0%	0-10%	10-15%	15-20%	20-25%
Profitability Indicators								
EBITDA/Revenue	Earnings Before Interest Tax, Depreciation & Amortization	WARIS	5	>25%	20-25%	15-20%	10-15%	<10%
Annual Operational surplus /deficit	Total Revenue Less Total O&M Costs incurred	WARIS	0	N/A	N/A	N/A	N/A	N/A
Profit / loss for year		WARIS	0	N/A	N/A	N/A	N/A	N/A
Liquidity & Solvency Indicators								
Liquidity reserves as % of annual operating expenses	Cash & Near Cash Reserves/ Annual Operating Expenses *12	WARIS	5	>25%	20-25%	15-20%	10-15%	<10%
Liquidity ratio	Cash & Near Cash Reserves/ Current Liabilities	WARIS	4	>1.6	1.5-1.6	1.4-1.3	1.2-1.3	<1
Debt Service Coverage Ratio	CFADS/ Total Debt Service (Interest + Principal Repayments)	WARIS	5	>1.8	1.5-1.8	1.3-1.5	1.2-1.3	<1.2
Cash Flow Available for Debt Service	Net Operating Cashflow + Interest Repayments	WARIS	10	>0	<0	<0	<0	<0
Debt:Equity Ratio	Total Debt/Total Equity	WARIS	5	<20%	20-30%	25-30%	30-35%	>35%
Debtor Days: average number of days it takes WSP to collect monies billed	Net billed amount outstanding/ Total annual operating revenues excluding grants and transfers *365	WARIS	5	<45 Days	45-60 Days	60-90 Days	90-120 Days	>120 Day
% Change in debtor days over the last financial year	(Debtor Days in Current Financial Year Less Debtor Days in previous Financial Year)/Debtor Days in Current Financial Year	WARIS	5	>25%	20-25%	15-20%	10-15%	<10%
Consumer bad debt provison% Cash provision for bad and doubtful debts	Cash provision for bad and doubtful debt /Consumer bad debt provison%	WARIS	5	Provision for all debt older than 60	Provision for all debt older than 90 days	Provision for all debt older than 365 days	Ad hoc limited provision	No provision
Billing Ratio	Volume of water Bought/ Volume of Water Produced	WARIS	5	95% and above	93% to 94%	90% to 92%	85% to 89%	Less than 85%
Collection effiecency :Utilities ability to collect billed accounts	Total amount collected as % of the total amount billed	WARIS	5	95% and above	93% to 94%	90% to 92%	85% to 89%	Less than 85%
Total			**100**	**4.0**	**3.0**	**2.0**	**1.0**	**-**

ANNEX 8: GOVERNANCE ASSESSMENT

UTILITY	GOVERNANCE PARAMETERS						Totals	% Level of Governance
	Utility Oversight/ Supervision	Information and Control Systems	Financial Management	Service Standards	Human Resources	User Consultation		
	40	12	28	12	16	12	120	100%
	23/24	23/24	23/24	23/24	23/24	23/24	23/24	23/24
Tatu City	36	12	26	12	12	8	106	88
Ruiru-Juja	32	12	23	12	12	6	97	81
Murang'a South	34	10	21	12	12	8	97	81
Kisumu	36	10	20	12	10	8	96	80
Kwale	36	10	22	10	10	8	96	80
Mathira	36	10	20	12	12	6	96	80
Eldoret	30	12	21	12	12	8	95	79
Naivasha	34	10	18	12	12	8	94	78
Nakuru Rural	30	10	22	12	12	8	94	78
Thika	32	10	21	12	10	8	93	78
Nyeri	36	10	19	8	12	8	93	78
Limuru	28	10	19	12	12	8	89	74
Embu	36	4	17	11	12	8	88	73
Nairobi	28	8	19	12	12	8	87	73
Malindi	32	10	18	7	12	8	87	73
Murang'a Urban	32	6	16	12	12	8	86	72
Kilifi Mariakani	26	10	19	12	10	8	85	71
Nithi	36	4	14	9	12	8	83	69
Nanyuki	26	10	16	11	12	8	83	69
Machakos	30	6	18	11	12	6	83	69
Nyahururu	30	10	16	12	8	6	82	68
Sibo	32	10	16	8	9	6	81	68
Nakuru Urban	28	6	16	12	10	8	80	67
Kiambu	24	10	21	12	6	6	79	66
Murang'a West	34	8	13	7	8	8	78	65
Gatamathi	28	8	12	11	12	6	77	64
Githunguri	26	6	13	11	12	8	76	63
Kakamega Urban	22	6	16	12	12	8	76	63
Kericho	22	6	20	8	12	8	76	63
Runda	26	4	22	5	12	6	75	63
Meru	30	4	16	8	8	8	74	62
Mombasa	26	10	12	8	12	6	74	62
Nyandarua	26	8	18	4	12	6	74	62
Kirinyaga	24	8	12	11	10	6	71	59
Othaya Mukurweini	22	4	18	8	12	6	70	58
Mandera	26	6	12	12	10	4	70	58
Amatsi	22	8	17	5	10	6	68	57
Tetu Aberdare	20	6	13	11	10	8	68	57
Kapsabet Nandi	16	8	20	5	10	8	67	56
Gatanga	30	0	8	8	12	8	66	55
Kibwezi Makindu	28	2	15	7	12	2	66	55
Bomet	26	10	8	7	8	6	65	54
Ol Kalou	28	0	16	7	10	4	65	54
Garissa	30	6	9	5	8	6	64	53
Tavevo	28	10	10	8	4	4	64	53
Homabay	26	4	11	9	12	2	64	53
Isiolo	18	2	14	12	12	6	64	53
Kiambere Mwingi	22	6	10	8	12	6	64	53
Naromoru	24	4	13	5	12	6	64	53
Rukanga	22	4	13	5	12	4	60	50
Gatundu	26	2	11	6	10	4	59	49
Narok	18	6	19	7	6	2	58	48
Meru Rural	22	0	9	11	8	8	58	48
Busia	26	6	4	7	8	6	57	48
Wote	24	2	12	5	10	2	55	46
Embe	32	0	1	4	12	4	53	44
Kakamega Rural	22	0	8	7	10	6	53	44
Marsabit	26	4	6	5	6	6	53	44
Lamu	14	2	13	9	8	6	52	43
Migori	30	2	7	2	4	4	49	41
Nyasare	10	8	11	5	8	4	46	38
Tachasis	10	6	13	5	12	0	46	38
Kiamumbi	30	8	3	0	4	0	45	38
Nol Turesh	18	2	3	5	10	6	44	37
Muthambi 4K	10	4	12	5	4	6	41	34
Kathiani	6	2	14	5	6	4	37	31
Samburu	18	0	7	1	8	2	36	30
Chemususu	8	0	12	5	4	4	33	28
Kyeni	14	2	6	1	7	0	30	25
Matungulu Kangundo	12	6	5	1	4	2	30	25
Turkana Urban	18	0	2	5	4	0	29	24
Wajir	12	0	6	1	6	2	27	23
Elwak	16	0	2	5	3	0	26	22
Mbooni	14	0	4	0	4	0	22	18
Mwala	14	2	0	0	0	0	16	13
Karuri	4	0	6	0	4	2	16	13
Yatta	12	0	1	0	0	2	15	13
Kapenguria	10	0	0	0	0	0	10	8

ANNEX 9: UNBUNDLING SDG 6

WATER
1. Safely Managed: Drinking water from an improved source that is accessible at home, always available, and free from contamination.
2. Basic: Drinking water from an improved source, with a collection time of no more than 30 minutes for a roundtrip, including queuing.
3. Limited: Drinking water from an improved source, but the collection time exceeds 30 minutes for a roundtrip, including queuing.
4. Unimproved: Drinking water from an unprotected dug well or unprotected spring.
5. Surface Water: Drinking water directly from natural sources like rivers, dams, lakes, ponds, streams, canals, or irrigation canals.
SANITATION
1. Safely Managed: Use of improved facilities that are not shared with other households, where waste is safely disposed of or treated offsite.
2. Basic: Use of improved facilities that are not shared with other households.
3. Limited: Use of improved facilities shared between multiple households.
4. Unimproved: Use of pit latrines without a slab or platform, hanging latrines, or bucket latrines.
5. Open Defecation: Disposal of human waste in open spaces like fields, forests, or bodies of water.

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