KIRINYAGA COUNTY WATER AND SANITATION PLC

PERFORMANCE IMPROVEMENT

ACTION PLAN

30TH April 2025

KIRINYAGA COUNTY WATER AND SANITATION PLC (KICOWASCO)
PERFORMANCE IMPROVEMENT ACTION PLAN (PIAP) 2025–2030
APRIL 2025

INTRODUCTORY STATEMENT

Our goal at KICOWASCO is to fulfill and beyond the expectations of our stakeholders and consumers by offering water and sanitation services that are sustainable, dependable, cheap, and of high quality.

The Performance Improvement Action Plan (PIAP) for Kirinyaga County Water and Sanitation PLC (KIRIWASCO) outlines a strategic approach to restore operational efficiency, enhance service delivery, and ensure financial sustainability. This document has been developed in line with the K-WASH Program, World Bank's Program-for-Results, and the PIAP Planning Tool, it provides a structured, results-oriented framework for implementing key reforms and investments.

This plan underscores KICOWASCO's dedication to institutional strengthening and better service outcomes. It prioritizes reducing Non-Revenue Water (NRW), increasing the Operational Cost Coverage Ratio (OCCR), and improving water and sanitation access. The plan responds to critical performance issues such as 52% NRW rate, low coverage in water and sanitation, high receivables, high payables, ineffective organization structure and Enhance customer service and stakeholder engagement.

With an investment plan exceeding KSh288 million, the PIAP serves as the official transformation roadmap, supported by the Board and Management. It aims to mobilize funding from K-WASH, donors, and county partners, while introducing accountability mechanisms to drive measurable improvement over the next five years.

MANAGING DIRECTOR
KIRINYAGA COUNTY WATER & SANITATION PLC
P. O. Box 340-10300
KERUGOYA

SIGN; ..... DATE 30th April 2025
Dr. Cyrus Munyua Ph.D.
MANAGING DIRECTOR

SIGN; ..... DATE 30th April 2025
DICKSON KINYUA
FULL BOARD CHAIRMAN

EXECUTIVE SUMMARY

(i) Executive summary

The Performance Improvement Action Plan (PIAP) 2025–2030 for Kirinyaga County Water and Sanitation PLC (KICOWASCO) is a strategic framework designed to enhance the company's financial and operational performance. Aligned with national and international initiatives such as the K-WASH program, the World Bank's and WASREB regulations, the plan focuses on reforms and investments to transform KICOWASCO into a customer-focused, financially stable, and climate-resilient utility by 2030.

(ii) Mandate and Functions

KICOWASCO, operating under a Service Provision Agreement (SPA) signed between the company & water service regulatory Board (WASREB) and is wholly owned by the County Government of Kirinyaga through shareholding. It's responsible for water and sanitation services across 862 km², serving a population of 527,234. However, it currently reaches only about 65% of the population with water services and under 0.5% with Sewer serves.

(iii) Performance assessment

- **Non-Revenue Water (NRW)** stands at 52% well above the national target of 25%.
- **Operational Cost Coverage Ratio (OCCR)** is at 85% below the break-even benchmark of 100%.
- Inadequate Customer service and stakeholder engagement which needs to be enhanced
- Financial sustainability which require growth
- High debtors and receivables

(iv) Strategic goals

The PIAP is anchored on five overarching goals:

- Increased water coverage from 65% to 75% through line extensions and increase in new connections
- Increased sewerage coverage from 0% to 40% through the last mile connectivity on the new sewer line.
- Reduced NRW levels from 52% to 25% through installation of raw master meters, DMAs, replacement of faulty meters.
- Improve on financial sustainability from 85% to 109% through tariff review, cost reduction measures and improve on collection efficiency.
- Enhance customer service and stakeholder engagement.

(v) Investment Strategy and Financial Projections

Investment area	Budget in Ksh
Technical/Operational Improvements	239,861,891
Commercial Operations Improvements	32,218,800
Financial Management Improvements	8,720,000
Organizational management improvements	3,000,000
Institution Improvement	7,860,000
Total	**291,660,691**

(vi) Performance targets

These performance benchmarks are aligned with WASREB Impact Report indicators and K-WASH DLI targets.

KPI	2024 Baseline	2030 Target
Non-Revenue Water (%)	52%	≤25%
O&M Cost Coverage Ratio	85%	≥1.34
Collection Efficiency (%)	92%	≥106%
Water Coverage (%)	65%	≥75%
Sewerage Coverage (%)	0%	≥40%
Staff per 1,000 Connections	4.84	4
Supply Hours (per day)	20.75 hrs.	24 hrs

(vii) Bankable Projects and Quick Wins

Five high-priority, bankable projects have been identified:

- NRW Reduction and Infrastructure Upgrade (KSh 21.04M)
- Expansion plan for water supply (KSh 39.5M)
- Expansion plan for sewer (KSh 36.8M)
- Finance sustainability(Ksh 5.3M)
- Commercial operations improvements (Ksh 23M)

These initiatives are designed for blended financing through K-WASH, WSTF, AfDB, county government allocations, and private sector partnerships.

(viii) Implementation Roadmap and M&E

The implementation framework follows a phased, five-year plan (2025–2029) emphasizing early wins on NRW reduction and expansion plan for water and sewer in all the years. A Performance Improvement Unit (PIU) will oversee monitoring, reporting, and continuous performance tracking. WASREB KPIs and County accountability mechanisms are embedded in the PIAP's M&E architecture.

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ACRONYMS AND GLOSSARY OF TERMS

ICF	-	Infrastructure Condition Factor
IWA	-	International Water Association
KICOWASCO	-	Kirinyaga County Water and Sanitation Company
NRW	-	Non Revenue Water
OCCR	-	Operational Cost Coverage Ratio
WSP	-	Water Service Provider
WASREB	-	Water Services Regulatory services
TWWDA	-	Tana Water Works Development Agency
CAPEX	-	Capital Expenditure
ERP	-	Enterprise resource planning
HR	-	Human Resource
M&E	-	Monitoring and evaluation
PPP	-	Public private partnership

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CHAPTER 1. BACKGROUND

1.1 KICOWASCO Overview and Service Area

Kirinyaga Water and Sanitation Company Limited (KIRIWASCO) was incorporated on 6th April 2006 under CAP 486 (now Companies Act 2015) as a company limited by guarantee. It became operational on 23rd May 2006 as an agent of the Tana Water Services Board, in accordance with the Water Act 2002.

With the promulgation of the Constitution of Kenya 2010 and the enactment of the Water Act 2016, the responsibility for water service provision was devolved to county governments. As a result, the Company transitioned to Kirinyaga County Water and Sanitation PLC (KICOWASCO) as a water and sanitation service provider established under the Companies Act 2015. KICOWASCO was officially registered on 11th October 2023 as a wholly County-owned public limited company. The company is mandated to supply water and sanitation services in Kirinyaga Central, Kirinyaga West, Mwea West and Mwea East sub counties within Kirinyaga County and Parts of Mbeere South in Embu County.

1.1.1 Mandate and Functions

KICOWASCO is responsible for the production, distribution, and management of clean water supply and sanitation services within its designated jurisdiction. The company operates under the strategic guidance of the County Government, specifically through the Department of Water, Environment, and Natural Resources. It is required to adhere to national standards for quality, service delivery, and performance as set by WASREB**.** Additionally, KICOWASCO collaborates with major stakeholders in the water sector, such as the Water Sector Trust Fund (WSTF)**,** and the Water Resources Authority (WRA)**,** particularly in infrastructure development and catchment area management.

(a) Vision

'To be a reputable water and sanitation service provider'

(b) Mission

'To provide sustainable, safe and affordable water and sanitation services to our customers through expertise, technology and innovation'

1.1.2 Service area and Geographical coverage

The service area has a total population of 527,234, out of which 341,465 people currently receive water services. The company provides water supply across Kirinyaga Central, Kirinyaga West, Mwea West, and Mwea East sub-counties in Kirinyaga County, as well as parts of Mbeere South in Embu County.

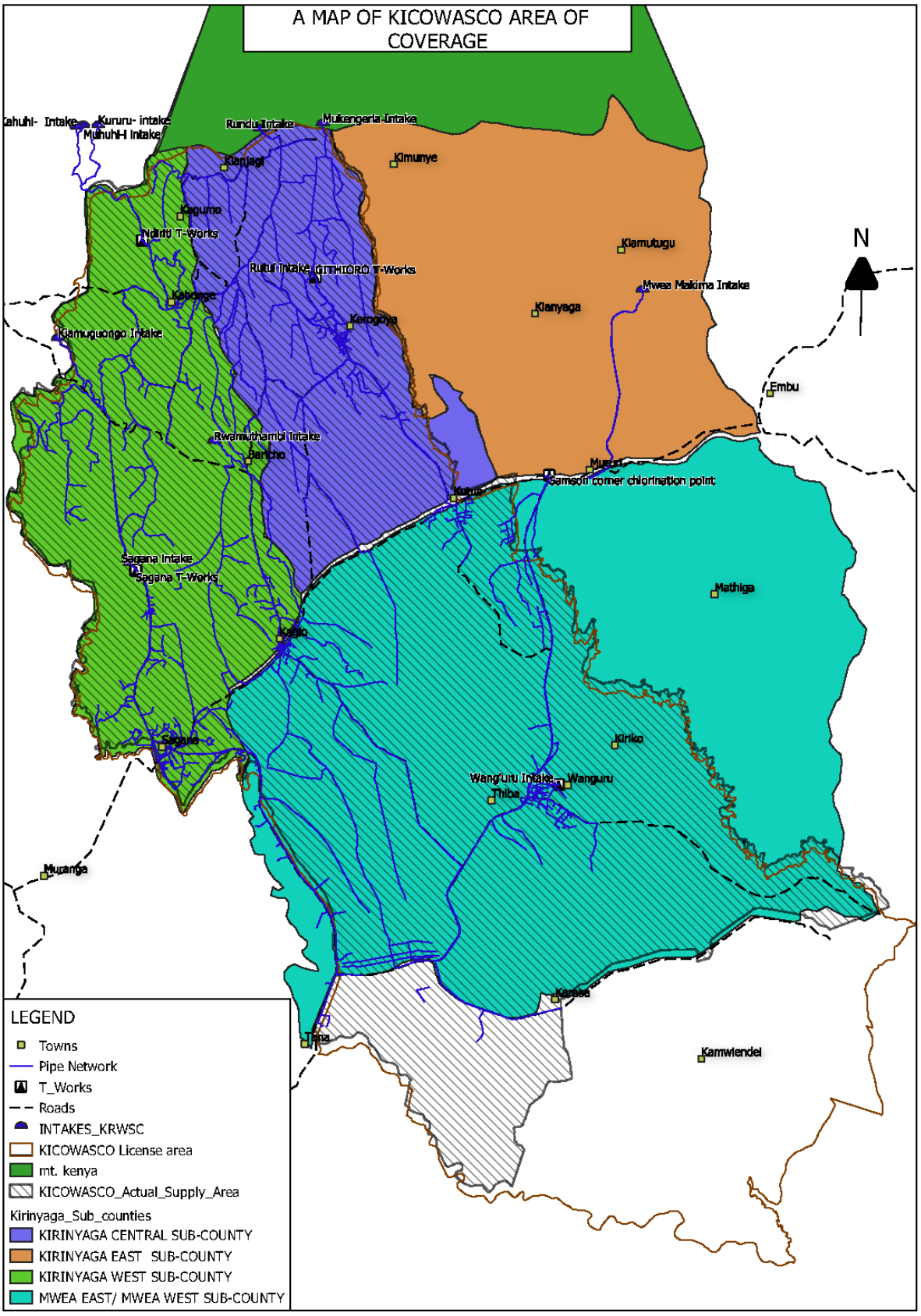
1.13 Customer base and service infrastructure

As of 2024, KICOWASCO has approximately 43,918 registered connections, with around 79% actively in use. Its clientele comprises households, institutions such as schools and health centers, commercial enterprises, and a few industrial users.

KICOWASCO's infrastructure includes:

- A pipeline network spanning over 14,356 kilometers,
- 8 operational water treatment plants, most of which are in need of rehabilitation,
- Several storage tanks with a combined capacity exceeding 3,000 cubic meters,
- New Ahiti Ndoba sewerage systems located in one scheme which requires last mile connectivity.

Despite this infrastructure, only about 65% of the county's population has access to piped water, and sewerage coverage is minimal. The utility also faces significant operational challenges, weak revenue collection, and outdated infrastructure. These issues contribute to a high level of Non-Revenue Water (NRW), currently at 52%.


A MAP OF KICOWASCO AREA OF COVERAGE
Kahuhi- Intake
Kururu- intake
Muhuhi-H Intake
Rundu Intake
Mukengeria Intake
Kianjagi
Kimunye
Kagumo
Ndimi T-Works
Kiamutugu
Rukuri Intake
GITHIORO T-Works
Mwea Makima Intake
Kabonge
Kianyaga
Kerogoya
Kiamuguongo Intake
N
Embu
Riwamuthambi Intake
Baricho
Murcu
Samson corner chlorination point
Kutus
Sagana Intake
Sagana T-Works
Mathiga
Kagio
Kiriko
Sagana
Wang'uru Intake
Wanguru
Thiba
Muranga
Karaba
Tana
Kamwiendei
LEGEND
Towns
Pipe Network
T_Works
Roads
INTAKES_KRWSC
KICOWASCO License area
mt. kenya
KICOWASCO_Actual_Supply_Area
Kirinyaga_Sub_counties
KIRINYAGA CENTRAL SUB-COUNTY
KIRINYAGA EAST SUB-COUNTY
KIRINYAGA WEST SUB-COUNTY
MWEA EAST/ MWEA WEST SUB-COUNTY

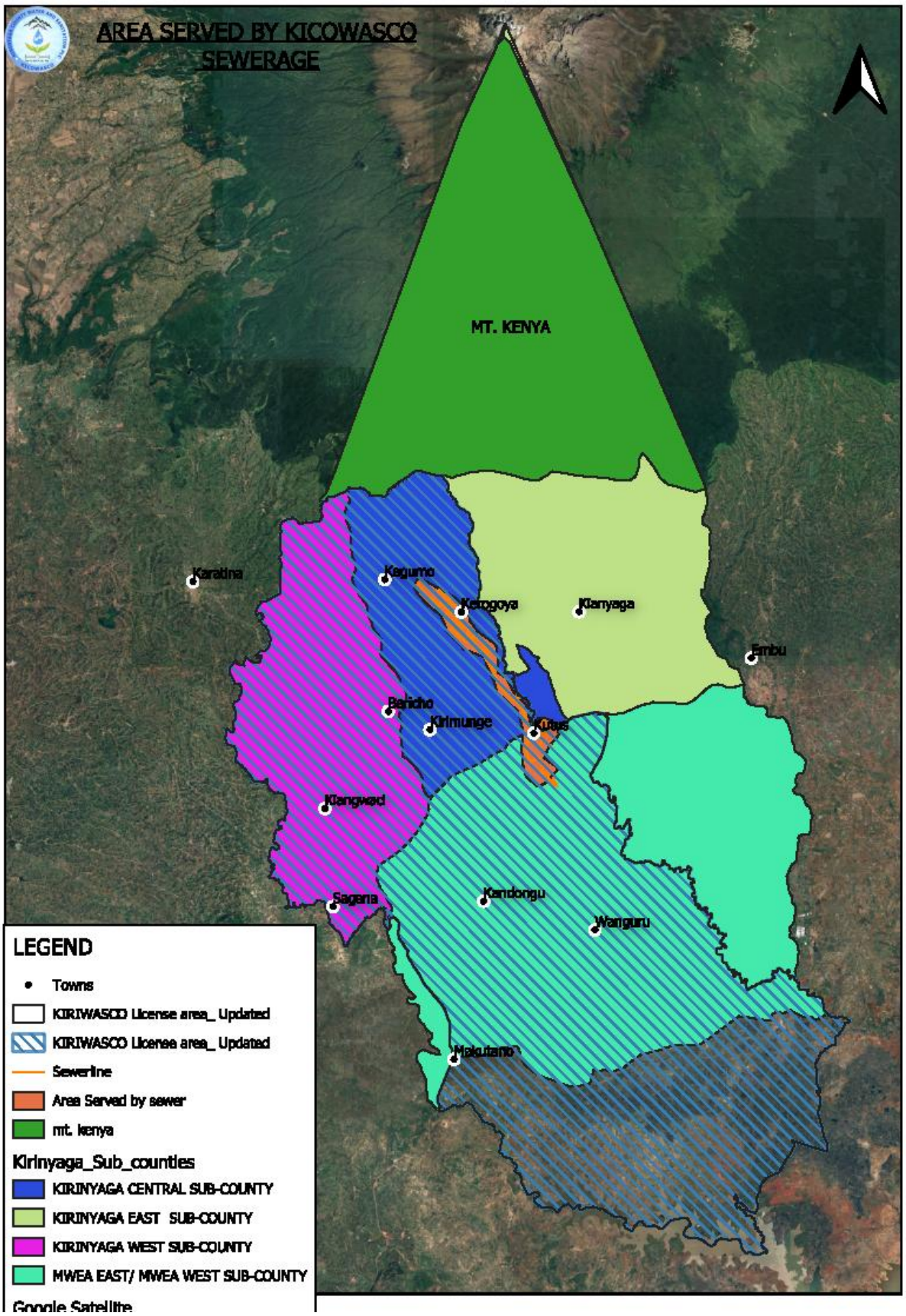

AREA SERVED BY KICOWASCO SEWERAGE
MT. KENYA
Karatina
Kagumo
Kerugoya
Kianyaga
Embu
Baricho
Kirimuge
Kutus
Kiangwaci
Sagana
Kandongu
Wanguru
Makutano
LEGEND
Towns
KIRIWASCO License area_ Updated
KIRIWASCO Licenee area_ Updated
Sewerline
Area Served by sewer
mt. kenya
Kirinyaga_Sub_counties
KIRINYAGA CENTRAL SUB-COUNTY
KIRINYAGA EAST SUB-COUNTY
KIRINYAGA WEST SUB-COUNTY
MWEA EAST/ MWEA WEST SUB-COUNTY
Google Satellite

Table 1: KICOWASCO Summary Data

KICOWASCO SUMMARY DATA		
Population in service area	Number	527,234
Population in service area with water service from the utility	Number	341,465
Total Number of Active Water Connections	Number	33,443
Total Number of Water connections (Active & Inactive)	Number	43,918
Population growth rate	%	2%
Water Coverage	%	64.5%
Sewerage Coverage	%	0
Average Tariff	Kshs/M^3	59
Sewer Connections	Number	0
Population Served with sewer connections	Number	0
Population Served with sanitation services	Number	441,463
Sanitation Coverage	%	83.73%
Area of service	Km^2	862
Water Production Capacity/Day	M^3	14,527
Annual Water Production	M^3	5,302,481
Per capita Consumption	1/c/d	163
Average household size in the service area	Persons/Household	6

The utility operates under the strategic guidance of the Kirinyaga County Department of Water and Irrigation and collaborates with national sector agencies on infrastructure development, water resource management, and funding initiatives. Its licensed service area includes two urban centers and several rapidly expanding market towns across five administrative sub-counties: Kirinyaga Central, Kirinyaga West, Mwea West, Mwea East within Kirinyaga County, and parts of Mbeere South in Embu County.

It oversees gravity-fed water systems that draw from various surface water sources, including Thiba (9,847 m^3/day), Kiringa (16,912 m^3/day), Kururu (6,698 m^3/day), Muhuhi (1,466 m^3/day), Kahuhi (354 m^3/day), Thiba Canal (472.5 m^3/day), Ragati (700 m^3/day), Rutui (2,726 m^3/day), Nyamindi (1,400 m^3/day), Rwamuthambi (2,447 m^3/day), Rwamuthambi (2,449 m^3/day), Rundu (805.5 m^3/day), and Mukengeria (813 m^3/day).

It also operates two boreholes: Nganga (10 m^3/hour) and Kiamwenja (8 m^3/hour).

1.2 Customer Base and Infrastructure

As of June 2024, the utility had around 43,918 registered connections, with approximately 76% classified as active. While the service area remains largely rural, urban centers are experiencing rapid growth. The customer base primarily consists of domestic households (92%), followed by commercial entities (6%) and institutions (2%).

The utility abstracts water from various surface water sources, comprising both gravity-fed and pumped systems. These sources feed into treatment facilities before being transmitted and distributed across the service area. The system varies in age, capacity, and technology, with some infrastructure dating as far back as 1950 and others commissioned as recently as 2023.

Table 1.2: KICOWASCO Infrastructure Details

	Intake & water abstracted		Raw Water Main		Treatment Works				Transmission line		Year of establishment	Distribution Network
	Source	Abstraction capacity (m3/day)	Length (km)	Pipe Material	Name	Treatment Type	Design capacity m3/day	Actual Production m3/day	Length (km)	Pipe Material		
1	Thiba	9,847	4	GRP	Muratiri	Conventional	30,000	10,000	33	GI/GRP/PVC/HDPE	2023	381
	Kiringa	16,912										
2	Kururu	6,698	5	GI/PVC	Ndiriti	Conventional	17,000	10,000	37	GI/PVC/HDPE	1984	490
	Muhuhi	1,466										
	Kahuhi											
3	Thiba canal	473	0.22	uPVC	Wanguru - Pumping	Conventional	3600	-	3	GI/PVC	1950	3
4	Ragati	700	0.3	GI	sagana	Conventional	1900	1200	7	GI/PVC	1980	7
5	Rutui	2,726	0.7	GI	Githioro	Conventional	2500	Not in use	4	GI/PVC	1980	4
6	Nyamindi	14,000	3.5	GI/PVC	Samsons Corner	chlorination point	2920	1600	23	GI/PVC	2019	23
7	Rwamuthambi	2,447	0	GI/PVC	Rwamuthambi	chlorination point	1800	442	9	GI/PVC	1980	9
	Rwamuthambi											
8	Rundu	806	1.7	GI/PVC	Rundu	chlorination point	1800	800	5	GI/PVC	1980	5
9	Mukengeria	813	2	GI/PVC	Mukengeria	chlorination point	1800	750	17	GI/PVC	1980	17

1.3 WASREB Classification and performance

As per the WASREB Impact Report 16 (2024), KICOWASCO is classified under large category ranking No. 10 out of 18 Large Companies due to multiple indicators, including:

- Low O&M cost coverage (85%),
- High NRW 58%
- High personnel cost to O&M 54%

1.3.1 Recent Strategic Milestones and Support

To address its operational and service delivery challenges, KICOWASCO has initiated several key reforms as part of its 2021/2022–2025/2026 Business Plan, with support from TWWDA, the African Development Bank (AfDB), and Water Fund. Notable progress includes:

- Approval of a new tariff structure for the period 2022–2025 by WASREB,
- Implementation of Non-Revenue Water Reduction plan
- Increased production through construction of Kerugoya kutus water supply financed by African Development Bank (AfDB), through TWWDA.
- Construction of sewerage system in one of the Schemes through African Development Bank (AfDB) which requires the last mile connectivity,
- Participation in the K-WASH Project Entry Form (PEF) process to qualify for full funding under Result Area 1.
- Reduced the NRW from 60% to 52%
- Increased coverage from 59% to 65%

The current **Performance Improvement Action Plan (PIAP)** builds on these reforms by offering a strategic and phased approach to overcome KICOWASCO's operational, technical, and financial challenges through targeted, results-oriented investments and measures.

1.3.2 Current performance challenges

KICOWASCO is now facing a number of difficulties that must be addressed in order to improve its performance while assuring the sustainability of water and sanitation services within its authority, including:

1.3.3 High NRW :

One of KICOWASCO's most pressing operational challenges is its exceptionally high level of Non-Revenue Water (NRW), currently estimated at 52%. This rate is well above the benchmark of 25% and leads to substantial financial losses.

The main factors contributing to the high Non-Revenue Water (NRW) at KICOWASCO include:

- **Aging and dilapidated infrastructure**, leading to frequent leaks and bursts in the pipeline network,
- **Faulty meters**, resulting in unbilled consumption and inaccurate water usage tracking,
- **Illegal connections and water theft**, which reduce billed volumes,
- **Inaccurate billing systems and data management**, causing discrepancies between actual consumption and recorded sales,
- **Delayed repairs and maintenance**, which prolong water losses from system faults,
- **Weak enforcement of regulations and customer compliance**, limiting accountability in water usage and payments.

1.3.4 Poor customer Engagement and Service:

KICOWASCO has been having trouble enhancing communication and client relations, particularly when it comes to handling complaints and guaranteeing service dependability, both of which are essential for preserving public confidence and satisfaction.
The main causes of poor customer engagement

- **Ineffective communication channels** – Limited or unclear communication between the utility and customers about services, outages, billing, or complaint resolution.
- **Delayed response to customer issues** – Slow handling of complaints, service disruptions, or billing errors reduces trust and satisfaction.
- **Lack of transparency** – Insufficient information on tariffs, service standards, or decision-making processes can make customers feel excluded or misinformed.
- **Poor customer service training** – Staff may lack the skills or tools to handle customer interactions professionally and empathetically.
- **Infrequent customer feedback mechanisms** – Without regular surveys or engagement forums, customer voices are not heard or acted upon.
- **Inadequate use of digital platforms** – Limited online services or mobile engagement tools reduce accessibility for tech-savvy or remote users.
- **Billing and service inconsistencies** – Frequent billing errors, unmetered consumption, or unreliable supply create frustration and disengagement.
- **Limited public awareness campaigns** – Failure to educate the community about water conservation, payment responsibility, or utility initiatives weakens public cooperation.

1.3.5 Climate Change Effects:

Due to climate change, KICOWASCO has been experiencing some of the water sources drying up during dry seasons, which has left our customers without service.

Causes of climate change effects, particularly those impacting water utilities like **KICOWASCO**:

- **Greenhouse gas emissions** – The burning of fossil fuels (coal, oil, and gas) for energy, transport, and industry is the leading cause of climate change, driving global temperature rise.
- **Deforestation** – Clearing forests reduces carbon absorption and contributes to higher atmospheric CO_2 levels.

- **Agricultural practices** – Livestock farming produces methane, and excessive fertilizer use emits nitrous oxide, both potent greenhouse gases.
- **Industrial pollution** – Certain industrial processes release harmful gases and particulates that exacerbate global warming and degrade air quality.
- **Land use changes** – Urbanization and land degradation alter natural ecosystems, reducing resilience to climate-related shocks.

1.3.6 High costs of water production:

The company needs to Solarize Muratiri, Wang'uru, Ndiriti, Ahiti Ndomba and Sagana production plant for reducing production cost and improving the company's OCCR.
The main causes of high production cost are;

- **High electricity and fuel costs** – Pumping, treatment, and distribution systems rely heavily on energy, which can be expensive, especially with unreliable grid power or fuel price fluctuations.
- **Aging and inefficient infrastructure** – Old pipes, pumps, and treatment plants consume more energy and require frequent repairs, increasing operational costs.
- **Use of costly treatment chemicals** – Treating water from polluted or low-quality sources requires more chemicals and resources.
- **Expensive spare parts and maintenance** – Frequent breakdowns and reliance on imported parts can drive up repair and maintenance expenses.
- **Limited automation and digitization** – Manual processes reduce efficiency and increase labor and operational costs.

1.3.7 Financial sustainability

The Company has been straining due to inadequate revenue which has been caused by the following;

- **High Non-Revenue Water (NRW)** – Significant water losses from leaks, theft, and unmetered use reduce billable volumes and revenue.
- **Low revenue collection efficiency** – Delays or failure in customer payments, weak enforcement, and outdated billing systems reduce income.
- **Inadequate tariff structure** – Tariffs may be too low to cover operational and maintenance costs, or not regularly adjusted to match inflation and rising costs.
- **Dependence on external funding** – Overreliance on donor or government support without generating sufficient internal revenue weakens financial resilience.
- **Inefficient operations** – High energy consumption, labor inefficiencies, and underperforming assets increase costs without corresponding revenue gains.
- **Faulty meters and accuracy** – Inaccurate or absent meters lead to poor billing and reduced revenue potential.

This has an impact on the organization's cash flow and, consequently, its capacity to pay debts when they become due.

1.3.8 Infective institution capacity:

The Company has been having infective institution capacity that need to be addressed to improve performance and service delivery.

Causes of **ineffective institutional capacity** are:

- **Inadequate staffing levels** – Shortage of qualified technical, financial, and managerial personnel limits operational efficiency and decision-making.
- **Skills gaps and lack of training** – Staff may lack the necessary skills or ongoing professional development to adapt to modern utility management practices.
- **Weak governance structures** – Poor oversight, unclear roles and responsibilities, or lack of accountability mechanisms hinder effective leadership and control.
- **Limited strategic planning** – Absence of clear, long-term plans and performance targets weakens organizational direction and resource allocation.
- **Poor data and information systems** – Inadequate record-keeping, lack of digitization, and weak monitoring systems lead to poor decision-making.
- **Low staff motivation and retention** – Poor working conditions, limited career growth, or weak incentives affect staff morale and productivity.
- **Inefficient internal processes** – Manual or outdated procedures slow service delivery and reduce institutional responsiveness.
- **Inconsistent stakeholder coordination** – Weak collaboration with county departments, regulators, and development partners affects planning and implementation of projects.

1.3 Purpose of this PIAP

The **Performance Improvement Action Plan (PIAP)** is a structured, results-oriented strategy designed to help **KICOWASCO** overcome major performance challenges, achieve financial stability, and enhance service delivery in alignment with national and county water sector goals. The plan focuses on critical areas such as reducing Non-Revenue Water (NRW), improving the Operational Cost Coverage Ratio (OCCR), strengthening metering, and enhancing institutional governance. It also aims to meet eligibility requirements for performance-based funding under the **K-WASH** program.

Developing a PIAP is a structured, data-driven process that enables a WSP to move from diagnosing performance gaps to identifying sustainable solutions and mobilizing the necessary resources. The financing gap analysis is critical to justify the need for external support and to design interventions that are both impactful and feasible within the utility's financial and operational context.

1.3.1 Diagnosis against Sector Benchmark KPIs

The Company has determine performance shortfalls by comparing the WSP's current indicators to WASREB set benchmarks as analyzed below:

Table 1.3.1.Benchmark KPIs

KPI	Baseline (2024)	Benchmark (WASREB)
Non-Revenue Water (%)	52%	<25%
Metering Ratio (%)	100%	100%
Revenue Collection Efficiency (%)	92%	>95%
O&M Cost Coverage Ratio (OCCR)	85%	≥1.00
Hours of Supply (per day)	20.75 hrs.	24 hrs./day
Staff per 1,000 connections	4.84	<5
Energy Costs (% of OPEX)	39.50%	<20%
Personnel to O&M cost	55.80%	>30%
Water Coverage (%)	65%	>80%
Sewerage Coverage (%)	<0%	>30%

1.3.2 Root Cause Analysis

To address these performance challenges effectively, KICOWASCO undertook a systematic root cause analysis using the PIAP framework. The objective was to identify both the obvious inefficiencies and the underlying systemic, structural, and operational issues driving underperformance.

Table 1.3.2 Root Cause Analysis

Thematic Area	Performance Gap	Root Cause(s)
Technical	High NRW (52%)	- Aging, leaking pipelines - Inadequate pressure management - No DMAs or active leak detection - Low metering coverage
	Low coverage	- Underinvestment in network expansion - Incomplete or outdated asset inventory
Commercial	Faulty meters	- Inadequate budget for meter procurement - Non factional meters
	Poor billing and collection systems	- Manual billing practices - Absence of ERP - Limited enforcement for bill defaulters
	Weak customer engagement	- No formal channels for feedback - Limited field agents for outreach
Financial	Low O&M Cost Coverage (OCCR = 85%)	- Low billing base - Poor tariff enforcement - High energy and payroll costs - Limited working capital
	Increase in receivables	-Poor billing and collection systems -Weak enforcement policies -Inefficient customer segmentation

Institutional	Infective institution capacity	- Inadequate staffing levels - Lack of clear performance KPIs - Skills gaps and lack of training -Low staff motivation and retention
	Limited digital systems and data	- Standalone software in different department - Fragmented data across paper-based systems

1.3.3 Identification of Interventions

After identifying the root causes of the challenges, the company has proposed the following interventions to address them:

- Improve O&M cost recovery to sustainably meet financial obligations,
- Reduce both commercial and physical water losses
- Strengthen customer management and revenue collection systems,
- Improve institutional capacity and stakeholder coordination,
- Enhance sanitation service provision and establish viable revenue mechanisms

1.3.4 Assessment of Internal Resource Capacity

The assessment of internal resource capacity will evaluate the WSP's ability to self-finance the proposed PIAP.

Scenario 1: Business-as-Usual

Table 1.3.4.1 Current status on Company performance

Year	Revenue	Expenditure	OCCR
2021	156,930.62	171,847.06	91%
2022	166,930.15	208,496.81	80%
2023	171,722.18	210,146.40	82%
2024	178,911.54	212,829.53	84%
2025	191,764 .00	203,183 .00	94%

Scenario 2: Business-as-Usual

- Limited investment in reducing Non-Revenue Water (NRW), improving energy efficiency, and upgrading commercial systems.
- Minimal organizational restructuring and no introduction of additional revenue sources.
- Slight improvement in OCCR driven by tariff adjustments and inflation, though underlying inefficiencies remain unaddressed.

Table 1.3.4 .2 Business-as-Usual Model

Year	Projected Revenue (KSh '000)	Projected O&M Cost (KSh '000)	OCCR
2025	191,764	203,183	94%
2026	193,269	223,835	86%
2027	194,373	225,114	86%
2028	195,332	226,224	86%
2029	208,855	241,884	86%
2030	212,140	245,690	86%

Scenario 3: Comprehensive Investment

- NRW reduced from 52% to **25%** through DMAs, bulk metering, and pipeline rehabilitation.
- Increase water coverage from 64.77 to 75% through line extension, New connections and activate dormant connections.
- Increase sewer coverage from 0% to 40% through Last Mile connectivity of sewer line
- Financial Sustainability (increase cost coverage from 85% to 117%) through tariff review and customer retention
- Improve Collection efficiency from 92% to 115%.

Table 1.3.4.3 Comprehensive Investment Model

Year	Projected Revenue (KSh '000)	Projected O&M Cost (KSh '000)	OCCR
2025	199,562	216,008	92%
2026	224,523	221,092	102%
2027	244,214	228,010	107%
2028	262,803	235,159	112%
2029	280,378	243,844	115%
2030	296,510	252,865	117%

The modeling exercise shows that KICOWASCO can only achieve financial sustainability, generate funds for reinvestment, and qualify for K-WASH disbursements through a comprehensive investment strategy. The following PIAP chapters are structured to implement Scenario 2, aiming to maintain an OCCR of at least 1.17 by 2030, with targeted improvements in non-revenue water (NRW), billing efficiency, institutional capacity, and customer service.

1.3.5 Financing Gap and External Resource Mobilization

To bridge this gap and ensure the full execution of the PIAP, WSPs must actively explore and secure external resource mobilization. This involves seeking financial and technical support from external stakeholders such as development partners, government agencies, commercial lenders, and private investors. External resource mobilization can take various forms, including grants, concessional loans, commercial financing, and public-private partnerships (PPPs).

Financing Gap = Total PIAP Cost – Internally Available Resources

Options for bridging the gap:

- **Grants**: Government, donor-funded programs (e.g., Water Sector Trust Fund)
- **Loans**: Development banks, commercial lenders with concessional terms
- **Public-private partnerships (PPPs)**: Especially for large-scale projects
- **Blended finance**: Combination of grants, loans, and technical assistance

CHAPTER 2: PERFORMANCE ASSESSMENT SUMMARY

2.1 Key performance gaps

An in-depth performance analysis of **KICOWASCO** was carried out using the **PIAP Planning Tool**, **WASREB benchmarks**, and internal data. This assessment covered technical, commercial, financial, and institutional aspects of the utility's operations. The findings revealed consistent underperformance in key areas, significantly impacting the **Operational Cost Coverage Ratio (OCCR)**, which is currently at **85%**, falling short of the recommended minimum benchmark of **100%** and above.

The performance cobweb presented in Figure 2 below illustrates the relative performance of KICOWASCO across four key operational areas: Human Resource Management, Financial Management, Technical Operations, and Commercial Operations. Each axis represents a specific performance category scored on a scale from 0 to 5, where 5 indicates excellent performance aligned with good industry practice, and 0 reflects critical underperformance.

The performance analysis indicates that the utility is underperforming across all key operational areas, with scores ranging from approximately 0.9 to 1.2 out of 5. Human Resource Management and Technical Operations scored around 1.0, suggesting significant challenges in staffing, training, and service delivery. Financial Management recorded the lowest score (~0.9), highlighting serious gaps in budgeting, planning, and revenue collection. Commercial Operations performed slightly better at about 1.2, but still reflects weaknesses in customer service and billing systems. These consistently low scores point to systemic issues that could threaten the utility's sustainability and service reliability. To address these challenges, the utility have prioritize on capacity building, strengthen financial systems, enhance operational efficiency, and capitalize on the relative strengths in commercial operations to improve revenue generation and customer engagement.

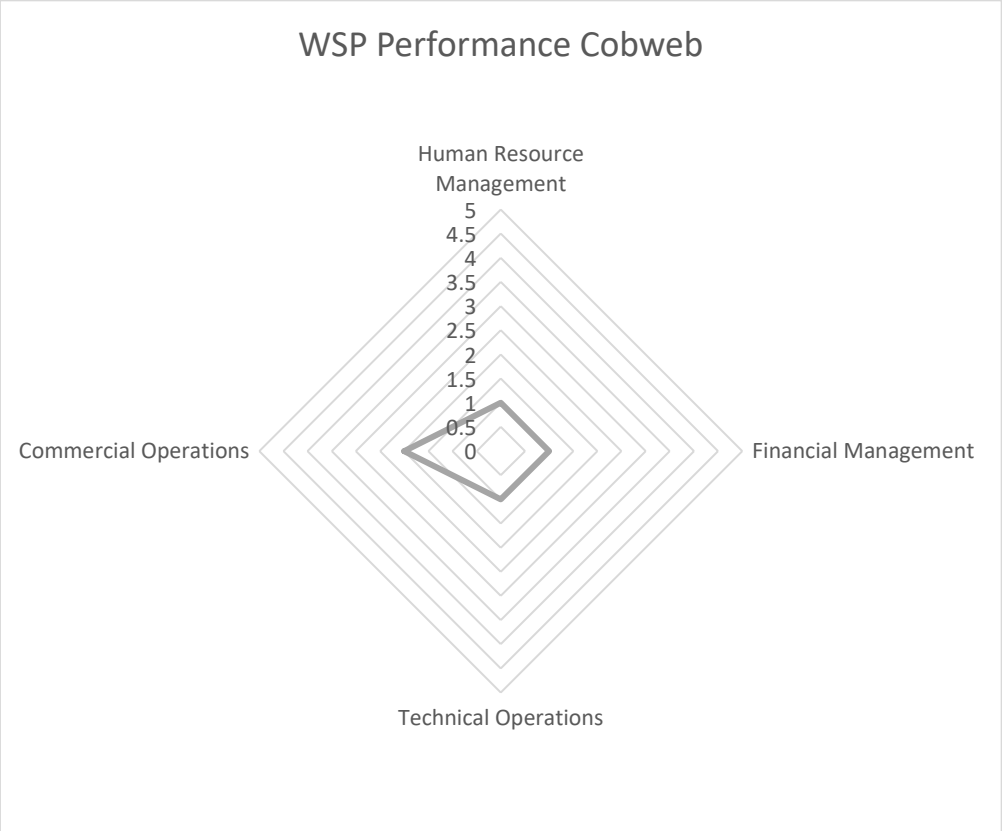


Table 2.1 below summarizes KICOWASCO's performance across key indicators, benchmark comparisons, and its direct or indirect contribution to low OCCR:

Table 2.1 Performance Summary by Indicator and Impact on OCCR

Dimension	Indicator	2024 Value	WASREB Benchmark	Performance Level	Contribution to Low OCCR
Technical	Non-Revenue Water (NRW)	52%	≤ 20%	Poor	Very High – Major revenue loss
	Hours of Supply	20.2 hrs./day	24 hrs./day	Acceptable	Medium - reduces billing potential
	Water Coverage	65%	≥ 80%	Poor	High–low billed volumes restrict revenue
	Sewerage Coverage	<0%	≥ 30%	Poor	Low Sanitation revenue is negligible
	Water Quality	100%	95%	Acceptable	Medium
Commercial	Metering Ratio	100%	≥ 95%	Acceptable	medium – Poor billing accuracy and leakage of revenues
	Collection Efficiency	92%	≥ 95%	Below Acceptable	Medium – debt from unpaid bills
	Customer Service / CRM	automated	Digital	Acceptable	Medium – Customer disputes affect revenue flow
Financial	O&M Cost	85%	≥ 1.00	Average	Central Issue

	Coverage Ratio (OCCR)				
	Staff per 1000 connections	4.84	≤ 5	Acceptable	High – Excessive payroll burden
	Personnel cost to O&M	55.8%	< 20%	Poor	High – Increase expenditure
	Energy Costs (% of OPEX)	0.65%	< 20%	Acceptable	Medium
Institutional	Governance & Oversight	Weak	Functional	Poor	Medium – Ineffective decision-making delays reforms
	Performance Management Systems	Available	Automated	Poor	Medium – No accountability or tracking of staff contribution

2.2 Root cause analysis

To effectively tackle these performance challenges, **KICOWASCO** conducted a structured root cause analysis guided by the **PIAP** framework**.** The aim was to uncover not only visible inefficiencies but also the deeper systemic, structural, and operational factors contributing to underperformance. This analysis was informed by the **PIAP diagnostic tool**, findings from internal audits, insights from **WASREB Impact Reports**, and input from stakeholder consultations.

Table 2.2 Root Cause Analysis by Thematic Area

Thematic Area	Performance Gap	Root Cause(s)	Interventions
Technical	High NRW (52%)	- Aging, leaking pipelines - Inadequate pressure management - No DMAs or active leak detection - Low metering coverage	-install DMAs -Rehabilitate dilapidated infrastructure -Have pressure controls -Unearth illegal connection
	Low coverage	- Underinvestment in network expansion - Incomplete or outdated asset inventory	- Line extensions and new connections both for water and sewer
Commercial	Faulty meters	- Inadequate budget for meter procurement - Non factional meters	-Replace faulty meters
	Poor billing and collection systems	- Manual billing practices - Absence of ERP - Limited enforcement for bill defaulters	- Customer engagement on debtors. -Upgrade the billing software - Enforce on revenue collection
	Weak customer engagement	- No formal channels for feedback - Limited field agents for outreach	- have a digitized communication system - Capacity building on customer care staff -Create awareness
Financial	Low O&M Cost Coverage (OCCR = 85%)	- Low billing base - Poor tariff enforcement - High energy and payroll costs - Limited working capital	- Increase coverage -Reduce NRW -Enhance billing and collection system - Tariff review
	Increase in receivables	-Poor billing and collection systems -Weak enforcement policies -Inefficient customer segmentation	-Strengthen enforcement and credit control
Institutional	Infective institution capacity	- Inadequate staffing levels - Lack of clear performance KPIs - Skills gaps and lack of training -Low staff motivation and retention	- Realign organization structure -Capacity build the staff
	Limited digital systems and data	- Standalone software in different department - Fragmented data across paper-based systems	- Procure an ERP software

CHAPTER 3. PERFORMANCE TARGETS AND MODELLING OF OCCR TARGETS

3.1 Key Performance Indicators and Targets

Drawing from the systemic challenges outlined in Section 2, **KICOWASCO** has established ambitious yet attainable annual targets for the five-year implementation of the **Performance Improvement Action Plan (PIAP)** from 2025 to 2030. These targets are aligned with **WASREB's performance benchmarks** and are geared toward restoring financial sustainability, enhancing service coverage, and achieving long-term operational efficiency.

The following **key performance indicators (KPIs)** have been prioritized due to their critical influence on the **Operational Cost Coverage Ratio (OCCR)** and the overall sustainability of the utility.

Table3.1 Key performance indicator

KPI	Baseline (2024)	2025	2026	2027	2028	2029	2030	2030 Target	Benchmark (WASREB)
Non-Revenue Water (%)	52%	45%	40%	35%	32%	30%	25%	**≤25%**	<25%
Metering Ratio (%)	100%	100%	100%	100%	100%	100%	100%	**100%**	100%
Revenue Collection Efficiency (%)	92%	93%	95%	99%	103%	107%	111%	**≥103%**	>95%
O&M Cost Coverage Ratio (OCCR)	85%	91%	103%	113%	122%	131%	140%	**≥1.25**	≥1.00
Hours of Supply (per day)	20.75 hrs.	22 hrs.	23 hrs.	24 hrs.	24 hrs.	24 hrs.	25 hrs.	**24 hrs.**	24 hrs./day
Staff per 1,000 connections	4.84	4	4	4	4	4	4	**≤4**	<5
Energy Costs (% of OPEX)	39.50%	35%	30%	25%	22%	20%	15%	**≤20%**	<20%
Personnel to O&M cost	55.80%	37%	32%	30%	30%	30%	30%	**≥30%**	>30%
Water Coverage (%)	65%	66%	68%	70%	72%	73%	75%	**>90%**	>80%
Sewerage Coverage (%)	<0%	10%	20%	25%	30%	35%	35%	**≥35%**	>30%

Table 3.1.1 impact on interventions

Intervention	Target Outcome	Timeline	Estimated Cost (KES)	Impact (Paraphrased)
NRW Reduction and Infrastructure Upgrade	Reduce Non-Revenue Water to 25%	2030	55,479,641	Lowers production expenses, boosts income through more accurate billing by addressing leaks and illegal use, and improving metering systems.
Water Service Coverage Expansion	Expand water coverage to 75%	2030	71,582,250	Enhances cash flow through improved revenue collection, reducing financial deficits and supporting utility sustainability.
Sewer Coverage	Increase sewer service coverage to 40%	2030	112,800,000	Minimizes service interruptions and maintenance needs while increasing water distribution capacity, improving customer satisfaction.
Tariff Review & Customer Retention for Financial Stability	Raise cost recovery from 85% to 117%	2030	5,370,000	Improves water service availability and supports further NRW reduction by funding additional interventions.
Commercial Operations Improvements	Enhance revenue collection efficiency to 115%	2030	28,018,800	Improving billing, customer follow-up, and reducing collection losses.
Organizational/Institutional Improvements	Enhance performance	2030	7,860,000	Improve on governance, staffing, and internal capacity development.

3.2 Modelling of OCCR targets

The Operational Cost Coverage Ratio (OCCR) is a key financial metric used to evaluate the long-term viability of a water service provider. It measures the extent to which the utility can cover its operational and maintenance expenses through revenue it generates internally. An OCCR of 1.00 represents full recovery of operating costs, while a ratio above 1.00 indicates the ability to generate excess funds that can be used for reinvestment and repaying debt.
In 2024, KICWASCO reported an OCCR of 84.73%, meaning it is able to finance only 85% of its operational costs from its income. This shortfall poses serious risks to the utility's ability to sustain its services, support its workforce, and meet its financial obligations.

3.3 Investment scenario modelling

Three projection scenarios were formulated to estimate KICOWASCO's OCCR trends from 2025 to 2029, based on the scale and level of investment undertaken during this period.

3.3.1 Scenario 1: Business-as-Usual

- Limited investment in reducing Non-Revenue Water (NRW), improving energy efficiency, and upgrading commercial systems.
- Minimal organizational restructuring and no introduction of additional revenue sources.
- Slight improvement in OCCR driven by tariff adjustments and inflation, though underlying inefficiencies remain unaddressed.

Table 3.2 Business-as-Usual Model

Year	Projected Revenue (KSh '000)	Projected O&M Cost (KSh '000)	OCCR
2025	191,764	203,183	94%
2026	193,269	223,835	86%
2027	194,373	225,114	86%
2028	195,332	226,224	86%
2029	208,855	241,884	86%
2030	212,140	245,690	86%

3.3.2 Scenario 2: Comprehensive Investment

- NRW reduced from 52% to **25%** through DMAs, bulk metering, and pipeline rehabilitation.
- Increase water coverage from 64.77 to 75% through line extension, New connections and activate dormant connections.
- Increase sewer coverage from 0% to 40% through Last Mile connectivity of sewer line
- Financial Sustainability (increase cost coverage from 85% to 117%) through tariff review and customer retention

- Improve Collection efficiency from 92% to 115%.

Table 3.3 Comprehensive Investment Model

Year	Projected Revenue (KSh '000)	Projected O&M Cost (KSh '000)	OCCR
2025	199,562	216,008	92%
2026	224,523	221,092	102%
2027	244,214	228,010	107%
2028	262,803	235,159	112%
2029	280,378	243,844	115%
2030	296,510	252,865	117%

The modeling exercise shows that KICOWASCO can only achieve financial sustainability, generate funds for reinvestment, and qualify for K-WASH disbursements through a comprehensive investment strategy. The following PIAP chapters are structured to implement Scenario 2, aiming to maintain an OCCR of at least 1.17 by 2030, with targeted improvements in non-revenue water (NRW), billing efficiency, institutional capacity, and customer service.

CHAPTER 4. PERFORMANCE IMPROVEMENT STRATEGIES

4.1 Investments in Technical/operational improvements

KICOWASCO is experiencing some of the most critical technical shortcomings in Non-Revenue Water (NRW) at 52% well exceeding the sector standard of 25%. Its infrastructure are old and dilapidated and lacks sufficient monitoring systems, leading to frequent pipeline failures, limited daily water availability (averaging 20.7 hours), and persistent customer dissatisfaction.

To address these challenges and raise its Operational Cost Coverage Ratio (OCCR), KICOWASCO plans to undertake substantial technical upgrades. These targeted investments aim to boost network efficiency, curb water losses, extend service hours, and enhance revenue-generating capabilities.

The proposed measures draw directly from the utility's Strategic plan 2020/2026, NRW Reduction Plan, the KPI Action Plan, and findings from the PIAP Planning Tool.

Table 4.1 Investments in Technical/operational improvements

Investment area	Goal/objective	Budget	Target KPI Impact	OCCR Impact
Master meter & DMAs	Installation of 7 No. master meters and creation of 17 No. District Metering Areas	7,792,141	Reduce NRW	Increase Efficiency
Nrw equipment	Procurement of pipe locator	3,000,000	Reduce NRW	Efficiency in NRW impact
Storage Tank Expansion/Rehab	Rehabilitate water storage tanks / BPTS in Wanguru, Sagana, Kerugoya and Ndia Schemes	1,890,000	Increase pressure & water supply	Increase Reliability
Line rehabilitation	Rehabilitation of 8 No.old line water supply in all the schemes	42,797,500	Reduce leakages	Cost reduction
Water Coverage	Extension and rehabilitation of pipelines of 13 projects, and last mile connectivity of kutus , Kimbimbi	71,582,250	Increase coverage &Revenue	Increase revenue
Water supply systems	Rehabilitation of old water supply system. They include: 3km asbestos Githioro Kerugoya pipeline; 1.5 asbestos Ndiriti-Mukangu ,9km Kerugoya town,7km Kagio town,4km of wanguru.	6,350,000	Reduce NRW	Cost reduction
Sewer coverage	Increase No of sewer connections and last mile connectivity project	112,800,000	Increase coverage &Revenue	Increase revenue
Total		**246,211,891**		

These Technical interventions will have impact in the company performance by:

- Reduce NRW from 52% to 25% by 2030
- Increase water coverage from 65% to 75%
- Increase sewer coverage from 10% to 40%

4.2 Investments in Commercial operations improvements

KICOWASCO faces significant commercial performance issues, including collection efficiency at 92%, and poor customer management all of which have severely constrained revenue generation. These shortcomings have led to reduced customer satisfaction, frequent billing disputes, and compromised financial stability, reflected in a low Operational Cost Coverage Ratio (OCCR) of 85%.

To tackle these challenges, the PIAP emphasizes investments in commercial modernization, targeting increased metering coverage, and customer service platforms, improved revenue collection, and enhanced customer responsiveness. These efforts are projected to improvement in OCCR, complementing gains from broader technical and institutional upgrades.

Table 4.2 Investments in Commercial operations improvements

Investment area	Goal/objective	Budget	Target KPI Impact	OCCR Impact
Metering	Replacement of 2,800 faulty meters in Kerugoya, Sagana. Wanguru & Ndia Schemes	9,948,400	Increase revenue	Revenue capture
Meter testing Equipment's	Installation one meter testing bench at Muratiri Treatment works.	1,200,000	Improve efficiency	Increase revenue
Billing	Meter reading phones	2,250,000	Improve billing capture	Increase revenue
Billing	Installation of ERP software	11,000,000	Improve efficiency	Increase revenue
Mapping	Utilize GIS to delineate the mandated area.	3,620,400	Data management	Billing accuracy
Detailed Customer records	Fully computerized customer database	1,500,000	Efficiency	Billing accuracy
Complaint management	Efficient Methods for customer to make complaints and inquiries. Electronic (e.g., call center or utility website); regular business hours (Monday to Friday).	300,000	Improve Communication	Improve Satisfaction
Customer engagement	Basic plan and regular customer engagement, including complaint and inquiry resolution; formalized partnerships with communities and periodic outreach.	1,800,000	improve Convenience	Increase revenue

Customer satisfaction feedback	Collected on at least an annual basis through satisfaction surveys.	600,000	Improve efficiency	Increase revenue
	Total	**32,218,800**		

These commercial upgrades will fundamentally strengthen KCOWASCO's revenue systems, transitioning the utility from reactive, real-time approach to customer engagement. The expected measurable outcomes include:

- An increase in collection efficiency from 92% to at least 117%, generating an additional KSh 19 million in annual revenue;
- Higher customer satisfaction and trust in services, leading to reduced illegal usage and a broader base of paying customers;
- Enhanced field enforcement and digital alert systems, projected to cut illegal connections and defaults by 20% in targeted zones.

4.3 Investments in Financial management improvements

KICOWASCO's financial management and cost control systems are mostly affected by low revenue, high receivables, inefficient billing system and technical challenges like high number of faulty meters and high NRW of 52%. These weaknesses directly impact the utility's low Operational Cost Coverage Ratio (OCCR) by undermining budgetary discipline, delaying payments to suppliers, increasing non-compliance with statutory obligations, and limiting access to results-based or concessional financing.

To strengthen revenue retention, enhance financial forecasting, and promote accountable use of resources, KICOWASCO will implement focused financial management reforms through the proposed PIAP interventions.

Table 4.3 Investments in Financial management improvements

Investment area	**Goal/objective**	**Budget**	**Target KPI Impact**	**OCCR Impact**
Tariff review	Conduct regular tariff reviews and engage with regulators to ensure tariffs are adjusted to reflect rising costs	3,500,000	Increase revenue	Revenue capture
Customer retention	Develop and implement customer retention programs and marketing strategies to boost service uptake	1,200,000	Improve efficiency	Increase revenue

Review of outstanding debts	Conduct a comprehensive review of outstanding debts. Sensitize debtors on part payment plan	670,000	Reduce receivables	Increase revenue
	Total	**5,370,000**		

These interventions will impact financial sustainability by;

- Increasing revenue form 167M in year 2025 to 282M by 2030
- Improve the OCCR from 85% to 117% by year 2030

4.4 Investments in Organizational/Institutional improvements

Although KICOWASCO's financial and operational issues are well known, they stem primarily from a fundamentally weak and demotivated organizational structure. The utility is currently burdened by:

- An absence of defined key performance indicators (KPIs), job roles, and performance evaluation systems.
- An organization structure that doesn't have career growth.
- Limited training opportunities, low staff morale, and unclear lines of accountability have collectively undermined service delivery, revenue retention, standard enforcement, and customer confidence.

To reverse this, the PIAP outlines a comprehensive organizational reform agenda aimed at restructuring the utility, professionalizing its human resources, and fostering a culture of performance critical steps toward improving OCCR and overall service effectiveness.

Table 4.4 Investments in Organizational/Institutional improvements

Investment area	Goal/objective	Budget	Target KPI Impact	OCCR Impact
Develop and review Policies	Develop and review 15No. Policies to suit the strategic intent of better communication, resource mobilization, ICT, pro-poor, metering, NRW, procurement, CSR, water safety, stakeholder engagement a	300,000	Improve governance	Strengthens governance and standardizes operations, reducing inefficiencies and enhancing resource utilization
organizational structure	Review The organizational structure to ensure that it fits the strategic intent	240,000	Improve efficiency	Promotes accountability and productivity,
Capacity Building	Train the Board of Directors and staff as per the training schedule	4,200,000	Improve in skills	Builds technical and managerial skills, improving decision-making and service delivery efficiency.
Undertake team building	Undertake team building activities annually	3,000,000	Improve communication	Enhances internal communication and cooperation,
Obtain asset ownership	Obtain asset ownership documents within the plan period	120,000	Compliance	Strengthens the balance sheet, supports borrowing capacity,
	Total	**7,860,000**		

These institutional reforms aim to achieve the following outcomes:

- Rebuild staff morale and reduce the risk of labor unrest.
- Establish clear accountability and implement performance-based management across all departments;
- Strengthen stakeholder and customer relations through improved branding and the rollout of a customer service charter.
- Enhance KICOWASCO's ability to manage and report on performance-linked financing, thereby improving its eligibility for K-WASH disbursements.

4.5 Financial Resource requirements

The financial resource required for implementing this Performance improvement plan 2025-2029 will be realised from internally generated funds, Water Sector Trust Fund (Financing basket for the water sector), County Government of Kirinyaga, Development Partners (Through TWWDA), Public Private Partnerships among others.

Table 4.5 Financial Resource requirements

KPI	Intervention	2025	2026	2027	2028	2029	2030	Cost Estimate Ksh
NRW	Medium-/annual NRW plans	1,960,600	11,760,600	10,450,000	12,987,000	10,800,000	7,521,441	55,479,641
Commercial Improvement	Enhance NRW reduction measures in billing	960,600	1,060,600	6,102,200	14,631,800	2,631,800	2,631,800	28,018,800
Water Coverage	Expansion plan	4,470,600	7,523,900	9,002,251	11,712,833	19,936,333	18,936,333	71,582,250
Sewerage	Expansion plan		630,660	16,191,510	27,420,000	27,420,000	41,137,830	112,800,000
EBITDA Margin	Tariff reviews & regulator engagement. Customer retention & marketing	670,000	3,500,000	300,000	300,000	300,000	300,000	5,370,000

4.6 Rationale for the Revenue Effects on Proposed Interventions

Implementing the proposed intervention projects is expected to stimulate revenue growth, which will, in turn, have a positive impact on the OCCR. The anticipated increases in both revenue and OCCR are based on the following assumptions and as analyzed in the table below;

1. That a 3% NRW reduction will be realized every year
2. That tariff review of an increase in revenue of 2.5%, that is already with WASREB shall be approved before the second year of the project. The cost of tariff review shall be funded from within the WSP's internal revenue sources
3. That TWWDA will approve the proposal of funding the last mile sewerage connectivity during the first year of the project period. It is worth noting that the sewer trunk mains infrastructure (that was funded by TWWDA) is already in place and only the last mile connectivity is pending.
4. That WSTF will continue funding the existing projects of NRW reduction and water supply lines extensions

Table 4.6 Rationale for the Revenue Effects on Proposed Interventions

No.	Interventions	Annual impact in revenue and costs	Project Cost	Impact	Remark and assumptions
1	Reduce NRW from 52% to 25%	Kshs	Kshs		

No.	Interventions	Annual impact in revenue and costs	Project Cost	Impact	Remark and assumptions
	Establish medium-term and annual NRW reduction plans Installation of 7 No. master meters and creation of 17 No. District Metering Areas • Procurement of pipe locator • Rehabilitate water storage tanks / Breaking pressure tank (BPT) in Wanguru, Sagana, Kerugoya and Ndia Schemes due leakages and overflows due to lack of ball valves.	5,432,053.86	12,682,141	Increase revenue	Annual 3% reduction in NRW increases billed consumption and improves accuracy in billing, resulting in higher revenue. Annual billing Yr. 2025 -Kshs 181,073,000/annual Consumption 2,710,200 Average tariff 66.81 Increase in consumption (3% * 2,710,200) =81,306 m3 Revenue increase (81,306*66.81) = Ksh5,432,053
	Rehabilitate existing old dilapidate water systems 24.5 KM	3,621,369.24 (698,734.00)	42,797,500	Increase revenue Reduce cost	Rehabilitations are expected to reduce operations and maintenance costs and NRW by 2% The reduction of NRW by 2% will generate (54,204 m3 * 66.81) =Kshs 3,621,369 The O & M cost will reduce by 10% as there will be reduction in bursts, Motorcycle & motor vehicle operation cost. (4KM/ 24.5*42797500*.1) =Kshs 698,734
2	**Commercial improvement**				
	Enhance NRW reduction measures (billing, metering, etc.) • Replacement of 2,800 faulty meters in Kerugoya, Sagana. Wanguru & Ndia Schemes • Installation one meter testing bench at Muratiri Treatment works. • Meter reading phones • Installation of ERP software • Utilize GIS to delineate the mandated area.	3,502,504	28,018,800	Increase revenue	Replacement of 2800 meters and accuracy in billing Will increase revenue. The average efficiency of a faulty meter is 30% and the 70% will be realized upon its replacement. Average consumption/ connection (2,710,200m3/ 35,100 connections) =77 units Average Consumption 77 units Average tariff 66.81 Average billing per customer (77*66.81)=Ks 5144 (70% * Ksh5144) = Kshs 3600 2800 Connections will generate (Kshs 3600* 700 connections) =Ksh2,520,000 annually in four years Identification of unserved/illegal connections, planning new connections will impact on revenue. -We have had 71 number cases of illegal connections where 50% are for high consumers which are to be regularized and realize immediate increase in revenue. (71 Con * Ksh5144) =Kshs 365,224 -We have site unknown customers which will be identified through the use of GIS.1% additional customer (120Conn*Ksh5,144) = Kshs 617,280

No.	Interventions	Annual impact in revenue and costs	Project Cost	Impact	Remark and assumptions
					-Through the use of meter reading phones we will have accuracy in meter reading
3	**Increase water coverage from 64.77 to 75%**				
	Line extension	3,940,304	71,582,250	Increase revenue	Over the period Will connect 4,600 households in 6 years. Revenue will increase annually by (766 connections* Kshs 5,144) =Kshs 3940,304
4	**Increase sewer coverage from 0% to 40%**				
	Last Mile connectivity of sewer line	2,793,192	112,800,000	Increase revenue	Will connect 4,345 households in Kerugoya in 6 years, capturing 75% of monthly billing potential (Kshs 5144* .75) = (Kshs 3,858 * 724 connections annually) = Kshs 2,793,192
5	**Financial Sustainability (increase cost coverage from 85% to 117%**				
	Conduct regular tariff reviews and engage with regulators to ensure tariffs are adjusted to reflect rising costs	4,553,136	3,500,000	Increase revenue	Tariff adjustments will align revenues with rising operational costs due to inflation. • The proposed tariff will increase by ; Estimated l billing Kshs 194,193,706 Estimated Consumption 2,835,111 m3 Estimated Tariff (194193706/2835111)=.68.49 Current Tariff 66.81 Increase 1.68 Revenue increase(1.68 * 2,710,200m3)=Ksh4,553,136
	Develop and implement customer retention programs and marketing strategies to boost service uptake	257,200	1,870,000	Improve collection	Strategies aimed at increasing customer loyalty and service uptake. • Revive300 Dormant Connections , each year 50 connections and retain the current active customers Revenue (50*Kshs 5,144) = 257,200
	Total revenue increase **Total Cost reduction**	**24,099,759** **(698,734)**	**273,250,691**		

4.7 Potential Bankable projects

KICOWASCO has outlined a portfolio of promising, pre-feasibility-stage bankable projects targeting critical service delivery gaps. These projects focus on areas such as Non-Revenue Water (NRW) reduction, financial sustainability, and increase in water and sewer coverage.

They are designed to be scalable, financially viable, and compliant with K-WASH funding requirements.

Each initiative is assessed based on essential technical and financial criteria, including projected capital and operating costs, potential for revenue generation, and overall return on investment.

Project 1: NRW Reduction and Infrastructure Upgrade

4.7.1.1Technical Scope

- Procurement of 2 No. pipe locator at a cost of Ksh 3,000,000.00
- Rehabilitate water storage tanks / BPTS in Wanguru, Sagana, Kerugoya and dia Schemes at accost of Ksh 1,890,000.00
- Rehabilitation of old water supply system at a cost of Ksh 16,150,000 for 2000 households. They include:
  * 9km Kerugoya town distribution network;
  * 7km Kagio town distribution network;
  * 4km of kutus town distribution network

4.7.1.2 Financial Summary

- **Capex**: Kshs. 21.04 million
- **O&M Costs**: Kshs. 1.5M/year
- **Revenue Impact**: Kshs. 3.5M/year increase through burst reduction and illegal usage
- **Payback Period**: ~6 years
- **IRR**: Estimated at 16%

4.7.2 Project 2: Water Service Coverage Expansion

4.7.2.1 Technical Scope

- Last mile connectivity of kutus , kimbimbi at a cost of Ksh 22,719,507.07
- Line extension for Kianjege kiaga pipeline at a cost of Ksh 16,802,152.00
- **1,410** new household connections across, Ndia and Wanguru Scheme

4.7.2.2 Financial Summary

- **Capex**: Kshs 39.5million
- **O&M Costs**: Kshs. 3M/year
- **Revenue Impact**: Kshs. 5.3M/year increase through accurate billing
- **Payback Period**: ~7years
- **IRR**: Estimated at 13%

4.7.3 Project 3: Sewer Coverage

4.7.3.1 Technical Scope

- Increase No of sewer connections and last mile connectivity project in Kerugoya Scheme

4.7.3.2 Financial Summary

- **Capex**: Kshs. 36.8million
- **O&M Costs**: Kshs. 1.5M/year
- **Revenue Impact**: Kshs. 2.7M/year increase through sewer billing
- **Payback Period**: ~13years
- **IRR**: Estimated at 7%

4.7.4 Project 4 Financial sustainability through tariff review and customer retention

4.5.4.1 Technical Scope

- Conduct regular tariff reviews and engage with regulators to ensure tariffs are adjusted to reflect rising costs
- Develop and implement customer retention programs and marketing strategies to boost service uptake

4.5.4.2 Financial Summary

- **Capex**: Kshs. 5.3 million
- **O&M Costs**: Kshs. 0.1m/year
- **Revenue Impact**: Kshs. 4.5M/year increase through tariff review
- **Payback Period**: ~1years
- **IRR**: Estimated at 63%

4.7.5 Project 5: Commercial operations improvements

4.7.5.1 Technical Scope

- Replacement of 2,800 faulty meters in Kerugoya, Sagana. Wanguru & Ndia Schemes at a cost of Ksh 9,948,400
- Installation one meter testing bench at Muratiri Treatment works at a cost of Ksh 1,200,000.00
- 30 Meter reading phones at a cost of Ksh 900,000.00
- Installation of ERP software at a cost of Ksh 11,000,000.00

4.7.5.2 Financial Summary

- **Capex**: Kshs. 23.04. million
- **O&M Costs**: Kshs. 1.5m/year
- **Revenue Impact**: Kshs. 3.5M/year increase through tariff review
- **Payback Period**: ~6years
- **IRR**: Estimated at 14%

4.7.6 Project profitability, payback period and sensitivity to key financial assumptions

Performance on sensitivity **analysis** has been done based on the **priority KPIs** and identified interventions that are most sensitive or impactful based on **return metrics**:

- Annual Increase in Cash
- Total Cost Estimate
- Expected Payback Period
- Rate of Return

Interventions have been evaluated, ranked, and categorized and then based on these financial performance indicators:

- **High Yield:** Return on investment exceeds 10%
- **Quick Payback:** Investment is recovered in 3 years or less
- **Low or Negative Return:** Return falls below 0%, indicating potential financial loss
- **Extended Payback:** Recovery period exceeds 10 years, suggesting delayed benefits

4.8 O&M costs, and potential revenue streams.

Preliminary financial modelling with cost estimates for capital expenditure, O&M costs, and potential revenue streams on the proposed interventions

Table 4.8 O&M costs, and potential revenue streams.

YEAR	2024	2025	2026	2027	2028	2029	2030
REVENUE	Ksh' 000	Ksh' 000	Ksh' 000	Ksh' 000	Ksh' 000	Ksh' 000	Ksh' 000
Billed revenue from water, wastewater, and non-sewered sanitation services	167,215	187,281	211,628	230,674	249,128	266,567	282,561
Other revenue (please specify, if applicable)	11,696	12,281	12,895	13,540	13,674	13,811	13,949
TOTAL REVENUES	**178,912**	**199,562**	**224,523**	**244,214**	**262,803**	**280,378**	**296,510**
Revenue collection efficiency (%)	91%	95%	99%	103%	107%	111%	115%
Cash collected	163,053	189,147	221,318	250,357	280,190	310,885	341,924
Existing government transfers/subsidies (if any)		15,370	15,624	15,880	16,139	16,400	16,664
COSTS							
Staff costs	117,763	120,119	122,521	126,197	129,983	135,182	140,589
Training Costs	598	622	647	673	700	728	757
Administrative expenses	23,784	24,497	25,232	26,241	27,291	28,383	29,518
Board expenses	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Electricity expenses	1,390	1,404	1,418	1,432	1,447	1,461	1,476
Chemical expenses	5,751	5,866	5,983	6,103	6,225	6,350	6,477
Direct operational expenses	21,330	21,970	22,629	23,534	24,476	25,455	26,473
Maintenance Expenses	24,273	25,002	25,752	26,524	27,320	28,140	28,984
Levies and fees	9,162	9,528	9,909	10,306	10,718	11,147	11,593
Total operating costs	211,052	216,008	221,092	228,010	235,159	243,844	252,865
Debt service costs (if applicable)	-						
TOTAL COSTS	**211,052**	**216,008**	**221,092**	**228,010**	**235,159**	**243,844**	**252,865**
OCCR before government transfers/subsidies	85%	92%	102%	107%	112%	115%	117%
OCCR with government transfers/subsidies	85%	100%	109%	114%	119%	122%	124%
Operating Cost Coverage against Target							
Target OCCR		112%	112%	117%	122%	123%	125%
OCCR with interventions		92%	102%	107%	112%	115%	117%
Gap		20%	10%	10%	10%	8%	8%

4.8.1 Sources of funds

The Company plans to finance its projects using a mix of sources, including:

- **Grants** from government agencies and donor-backed initiatives, such as the Water Sector Trust Fund
- **Loans** secured from development finance institutions or commercial banks offering favorable terms
- **Public-private partnerships (PPPs)**, particularly for major infrastructure investments
- **Blended financing models** that integrate grants, concessional loans, and technical support

The Company has been financed by Water Sector Trust Fund on five projects under CLSG II, funded by the World Bank, with a total cost of Ksh 29,049,250. These projects are currently in progress and are expected to be completed by 2026.

Additionally, a proposal worth Ksh 76,000,000 has been submitted to the Tana Water Works Development Agency for last-mile sewer connectivity under the National Urban Water Supply and Sanitation Program and is currently awaiting approval.

Table 4.8.1 Sources of funds

No.	Intervention	Cost Estimate Ksh	In ternary generated fund	WSTF	TWWDA	Other partners (Financial institutions, KWASH)
1	Enhance NRW reduction measures in billing	28,018,800	3,800,000	4,900,000	-	19,318,800
2	Medium-/annual NRW plans	55,479,641	3,000,000	11,793,000	-	40,686,641
3	Expansion plan - water	71,578,249	4,295,840	12,356,250	-	54,926,159
4	Expansion plan- Sewer	112,800,000	-	-	76,000,000	36,800,000
5	Tariff reviews & Customer engagement	5,370,000	5,370,000	-	-	-
	Total Cost	**273,246,690**	**16,465,840**	**29,049,250**	**76,000,000**	**151,731,600**

CHAPTER 5. IMPLEMENTATION ROADMAP, MONITORING AND EVALUATION PLAN

5.1 Implementation Plan

The rollout of KICOWASCO's PIAP will adopt a phased, results-oriented strategy over the 2025–2029 period. The approach is structured to:

- Focus on achieving early wins during Years 1 and 2 to drive immediate performance improvements and trigger initial funding releases;
- Gradually introduce more complex infrastructure projects and institutional reforms, allowing adequate time for planning and capacity building;
- Ensure that implementation milestones are aligned with projected OCCR targets, regulatory benchmarks set by WASREB, and performance criteria under the K-WASH framework.

Table 5.1 Implementation plan

Establish medium-term and annual NRW reduction plans				
Activities	**Budget**	**Timeline**	**Responsible officer**	**expected outcome**
Replacement of 2,800 faulty meters in Kerugoya, Sagana. Wanguru & Ndia Scheme	9,948,400	2025/2030	Technical department	Reduce NRW52% to 25%
Installation one meter testing bench at Muratiri Treatment works.	1,200,000	2027	Technical department	Efficiency in metering
Meter reading phones	2,250,000	2025/2027	Commercial department	Accuracy in billing
Installation of ERP software	11,000,000	2027	Tsm. CM, PM	Efficiency
Utilize GIS to delineate the mandated area.	3,620,400	2026	Technical department	Data management
Establish medium-term and annual NRW reduction plans				
District Metering Areas (Proposed) Kutus and Kagio DMA	7,792,141.24	2025/2027	Distribution &sales	Reduction of NRW
Rehabilitate water storage tanks / BPTS in Wanguru ,Sagana,Kerugoya and ndia Schemes	1,890,000	2025/2027	Technical department	Reduce leakages
Procurement of pipe locator	3,000,000	2026	TSM, PM	Reduce leakages and illegal connections
Increase water coverage				
Line extensions	71,582,250	2025/2030	Technical department	Increase revenue
Rehabilitation of water lines	42,797,500	2025/2030	Technical department	Reduce maintenance cost

Increase Sewer coverage				
Increase No of sewer connections and last mile connectivity project	112,800,000	2025/2030	Technical department	Increase coverage
EBITDA Margin				
Conduct regular tariff reviews and engage with regulators to ensure tariffs are adjusted to reflect rising costs	3,500,000	2025	Commercial department	Increase revenue
Develop and implement customer retention programs and marketing strategies to boost service uptake	1,870,000	2025/2030	Commercial department	Improve in customer management

5.1.1 Phasing Priorities

- **Year 1–2**: Commercial operations improvements, quick-win NRW projects and tariff renewal;
- **Year 3–4**: Complete major Capex (pipeline, extension and sewer coverage); expand monitoring systems;
- **Year 5**: Consolidation, closeout evaluations, and investment planning for 2031+ scale-up.

5.2 Monitoring and evaluation plan

The successful execution of this PIAP relies on a strong, transparent, and flexible Monitoring and Evaluation (M&E) system. This framework is designed to fulfill four main functions:

1. Monitor progress toward achieving performance goals and OCCR benchmarks;
2. Support timely decision-making and allow for strategic adjustments during implementation;
3. Ensure effective reporting to the Board, County Government, WASREB, and development partners;
4. Foster a culture of continuous learning within KICOWASCO to enhance future planning and implementation.

The M&E approach is grounded in WASREB's Key Performance Indicator (KPI) reporting framework, aligned with KICOWASCO's ERP-integrated dashboard metrics, and guided by the logic model of the K-WASH Results Framework.

Table 5.2 Monitoring and evaluation plan

Objective	Indicator	Data Source	Frequency	Responsible Person	Means of Verification
Reduce NRW					
Replacement of 2,800 faulty meters in Kerugoya, Sagana, Wanguru & Ndia Scheme	No. of meters replaced	NRW reduction plan / Strategic plan	Monthly	Internal Audit / PMET	NRW report
Installation of one meter testing bench at Muratiri Treatment works	No. of installed benches	NRW reduction plan / Strategic plan	Monthly	Internal Audit / PMET	NRW report
Meter reading phones	No. of phones	NRW reduction plan / Strategic plan	Annually	Internal Audit / PMET	Procurement records / Asset register
Installation of ERP software	Billing system upgraded	Strategic plan	Upon implementation	Internal Audit / PMET	System upgrade report / IT audit report
Utilize GIS to delineate the mandated area	GIS maps	NRW reduction plan / Strategic plan	Upon completion	Internal Audit / PMET	GIS maps / Spatial data reports
Installation of master meters	No. of meters	NRW reduction plan / Strategic plan	Upon installation	Internal Audit / PMET	NRW report / Installation records
Procurement of pipe locator	No. of pipe locators	NRW reduction plan / Strategic plan	Upon procurement	Internal Audit / PMET	Asset register / Procurement records
Rehabilitate water storage tanks / BPTs in Wanguru, Sagana, Kerugoya, and Ndia Schemes	No. of tanks	Strategic plan	Upon completion	Internal Audit / PMET	Engineering reports / Completion certificates
Increase water coverage					
Extension and rehabilitation of pipelines	No. of new lines	Strategic plan	Quarterly	Internal Audit / PMET	Coverage report / Engineering report
Rehabilitate existing schemes or sources	No. of rehabilitated lines	Strategic plan	Biannually or as planned	Internal Audit / PMET	Completion certificates / Engineering reports
Increase No. of sewer connections and last mile connectivity project	No. of connections	Strategic plan	Biannually or as planned	Internal Audit / PMET	Coverage report /

					Connection database
Sewer coverage					
Increase No. of sewer connections and last mile connectivity project	No. of sewer connections	Strategic plan	Quarterly	Internal Audit / PMET	Coverage report / Sewer connection log
EBITDA Margin					
Conduct regular tariff reviews and engage with regulators	Varied tariff	License and tariff	Every 3 years	Internal Audit / PMET	Approved tariff review documents
Develop and implement customer retention programs and marketing strategies	No. of active connections	Strategic plan	Monthly	Internal Audit / PMET	CRM reports / Customer feedback

5.2.1 Implementation plan

Table 5.2.1 Implementation plan

Intervention	Responsibility	Timeline	Resources required	Milestone/deliverable
Enhance NRW reduction measures (billing, metering, etc.)	Tsm/Cm	2025/2030	28,018,800	Enhance financial sustainability by increasing revenue
Establish medium-term and annual NRW reduction plans	Tsm/Cm	2025/2030	12,682,141	Increase hours of supply to customers or reach more customers due to increased revenue water
Develop expansion plan Water	Tsm/Cm	2025/2030	71,582,250	Increase water coverage towards achieving vision 2030
Rehabilitate existing schemes or sources	Tsm/Cm	2025/2030	42,797,500	Reduce NRW and increase water for consumption
Conduct regular tariff reviews and engage with regulators to ensure tariffs are adjusted to reflect rising costs	Tsm/Cm	2025/2028	1,750,000	Increase operations cost coverage ratio
Conduct a comprehensive review of outstanding debts and implement targeted collection strategies for high-risk accounts	CM	2025	670,000	Increase net operating cashflows and improve our credit rating

Develop expansion plan Sewer	Tsm	2025/2030	112,800,000	Improve sanitation towards achieving vision 2030

5.2.2 M&E Reporting Structure and Frequency

Table 5.2.2 M&E Reporting Structure and Frequency

Report Type	Frequency	Audience	Lead Responsible
Internal Monthly Performance Dashboards	Monthly	MD, PIU, Department Heads	Performance Improvement Unit
Board Performance Report	Quarterly	KICOWASCO Board of Directors	MD + PIU
County Government Progress Report	Semi-Annually	Department of Water, KIRINYAGA County	MD + PIU
WASREB KPI Reporting	Annually (WASREB Portal)	WASREB	MD + Technical/Commercial
World Bank PIAP Result Updates	Semi-Annually	National PIAP Secretariat / K-WASH Steering Group	PIU + Finance + Planning
PIAP Review and Adjustment Memo	Annually	Internal + County + Partners	MD + PIU

5.2.3 M&E Tools and Responsibilities

To strengthen accountability and ensure data accuracy, KICOWASCO will utilize its ERP system once fully operational to automate dashboards, monitor KPI progress, and manage PIAP implementation trackers in Excel format.

Each department will appoint a dedicated Data Focal Point responsible for submitting monthly indicator updates to the Performance Improvement Unit (PIU) using a standardized M&E template.

As outlined in Section 4.4, the PIU will:

- Aggregate and verify the data received;
- Conduct monthly performance review sessions with departmental heads;
- Generate quarterly performance scorecards;
- Propose corrective actions or escalate issues to the Managing Director and Board as needed;
- Collaborate with the County Water Department to support mid-year evaluations.

5.2.4 PIAP Review Update and Protocol

To ensure the PIAP remains adaptable to evolving operational conditions, funding constraints, or performance challenges, it will undergo an annual review and update process, which includes the following steps:

1. Joint analysis of performance outcomes and budget utilization by the PIU and Finance Unit;

2. Strategy review meetings held within each department;
3. Annual stakeholder workshop with county representatives in the fourth quarter;
4. Revision of OCCR projections, KPI targets, and the implementation roadmap as necessary;
5. Submission of the updated PIAP report and tracking tools to the County Government and development partners.

5.3 KPIs process for tracking

Table 5.3 KPIs Process for tracking

KPIs to improve	No.	Interventions	Current KPI status	2025 Target	2026 Target	2027 Target	2028 Target	2029 Target	2030 Target
		Reduce NRW from 52% to 25%							
NRW	1.1	Enhance NRW reduction measures (billing, metering, etc.)	52%	45%	40%	35%	32%	30%	25%
	1.2	Establish medium-term and annual NRW reduction plans	52%	45%	40%	35%	32%	30%	25%
	1.3	Investigate illegal connections and leaks	50	50	50	50	50	50	50
	1.4	Installation of ERP software		1					
	1.5	Establish base maps with free GIS and import collected data on customer meters			1				
		Increase water coverage from 64.77 to 75%	65%	66%	68%	71%	72%	73%	75%
Water Coverage	2.1	Line extension	2Km	3km	3km	4km	4km	4km	4km
	2.2	Rehabilitate existing schemes or sources		1	1	1	1	1	1
	2.3	New connections	1200	1200	1200	1200	1200	1200	1200
	2.4	Activate dormant connections	200	200	200	200	200	200	200
Sewer Coverage		**Increase sewer coverage from 0% to 40%**							
	2.5	Last Mile connectivity of sewer line	10%	15%	20%	30%	35%	38%	40%
		Financial Sustainability (increase cost coverage from 85% to 117%	85%	92%	102%	107%	112%	115%	117%
EBITDA Margin	4.1	Conduct regular tariff reviews and engage with regulators to ensure tariffs are adjusted to reflect rising costs		1			1		
	4.3	Develop and implement customer retention programs and marketing strategies to boost service uptake		1					

		Improve Collection efficiency from 92% to 115%	92%	93%	95%	99%	103%	107%	111%
Collection Rate	5.1	Conduct a comprehensive review of outstanding debts and implement targeted collection strategies for high-risk accounts	4	4	4	4	4	4	4
	5.2	Improve communication with customers about their payment obligations and the consequences of non-payment	12	12	12	12	12	12	12
	5.3	Provide regular updates to customers on their account status to encourage timely payments	12	12	12	12	12	12	12

5.4 Communications and Advocacy Strategy

Objectives:

- Ensure that all stakeholders are well-informed about the goals, timelines, and progress of the PIAP.
- Strengthen internal support and commitment among KICOWASCO staff and departments.
- Foster customer confidence and encourage timely bill payments.
- Maintain active engagement and information flow with the County Government, Board of Directors, and development partners.

Table 5.4 Target Audiences & Core Messages:

Audience	Key Message	Communication Channels
KICOWASCO Staff	"This initiative enhances our systems and secures your jobs – your involvement matters."	Staff meetings, internal notices, SMS updates
Urban & Rural Customers	"Better service, improved metering, and fair billing are on the way – stay informed and keep paying."	Community radio, posters, public forums, text messages
County Government	"PIAP aligns with CIDP goals, supports sanitation expansion, and strengthens funding opportunities."	Official memos, interdepartmental meetings
Board of Directors	"PIAP serves as your guide for strategic oversight and improved governance."	Regular board briefings
Development Partners	"This is a results-oriented reform program ready for investment and tracking."	Semi-annual reports, site inspections

Audience	Key Message	Communication Channels
Media & Public	"KICOWASCO is committed to better service through transparent reforms – see our progress."	Press releases, visual content like infographics

Table 5.4. 1 Communication Tools & Channels

Tool	Frequency	Purpose
PIAP Performance Brief	Quarterly	Share progress with the Board, County, and development partners
Internal Staff Circulars	Monthly	Update staff and departments on achievements and next steps
Customer SMS Alerts	Continuous	Notify customers about billing, service changes, and PIAP updates
Community Radio Programs	Every 3 months	Raise awareness and handle public concerns or queries
Stakeholder Engagement Forums	Twice a year	Engage County officials, WRUAs, CBOs, and NGOs on PIAP progress
Branding and Visibility Materials	Annually	Reinforce identity and visibility via uniforms, vehicle branding, signage

Responsible Units:

- **Lead Department:** Public Relations Officer, in collaboration with the Performance Improvement Unit (PIU)
- **Supporting Teams:** Human Resources, Commercial Department, County Communication Office

5.5 Conclusion and Next Steps

This PIAP represents WSP's strategic plan to address its operational, financial, and institutional challenges over the period **July 2025 to June 2030**. It identifies key performance gaps and their underlying causes, sets measurable targets, proposes impactful operational and investment strategies, and establishes a monitoring and implementation framework to ensure effective delivery and adaptive management.

By prioritizing areas such as reducing non-revenue water, improving metering and billing systems, increasing collection efficiency, optimizing energy use, and strengthening financial management, WSP aims to raise its Operational Cost Coverage Ratio (OCCR) from **0.85** in **2023/24** to **1.09** by **2029/30**. These efforts are designed to enhance service quality, promote financial stability, and improve governance and accountability within the utility.
The PIAP will also guide WSP in identifying and preparing bankable investment projects to support long-term growth and service expansion. These projects, together with operational

improvements, will position the utility to better meet customer needs, regulatory expectations, and county development goals.

5.5.1 Next Steps

To operationalize this PIAP, the following next steps are proposed:

Action	Responsibility	Timeline
Finalize and approve the PIAP through the WSP Board and County Government	Board Chair & Managing Director	May 2025
Submit approved PIAP to WASREB for formal review and clearance	Managing Director	May 2025
Establish a PIAP Implementation Committee with clear terms of reference	Managing Director	June 2025
Confirm financing commitments for priority investments through county, internal, and external sources	Finance & Planning Manager	June 2025
Initiate procurement for priority interventions (NRW equipment, metering systems, billing systems)	Procurement Manager	August–October 2025
Finalize and roll out the M&E framework and reporting tools	Commercial & Technical Managers	August 2025
Conduct stakeholder engagement and awareness campaigns for planned activities and expected service disruptions	Customer Service Manager	July–September 2025

WSP is committed to implementing this plan diligently, ensuring that all interventions are delivered on schedule, and maintaining transparent reporting to its Board, County Government, and customers.

ANNEXES

Annex 1 Consolidated PIAP Investment Summary by Thematic Area (2025–2030

No.	Intervention	Cost Estimate Ksh
1	Enhance NRW reduction measures	28,018,800
2	Medium-/annual NRW plans	12,682,141
3	Expansion plan -water	71,582,250
4	Rehabilitate existing schemes	42,797,500
5	Expansion plan- Sewer	112,800,000
6	Tariff reviews & regulator engagement	3,500,000
7	Customer retention & marketing	1,200,000
8	Implement energy-saving initiatives	3,000,000
9	Targeted collection for high-risk accounts	4,020,000
10	Communication improvement	2,400,000
11	Regular account status updates	1,800,000
12	Institution Improvement	7,860,000
	Total	**291,660,691**

Annex 2 Reference Documents Used in PIAP Development

Reference Document	Date	Source
NRW Reduction Plant -2024	May-24	KICOWASCO
KICOWASCO Business Plan (2022–2026)	Feb-22	KICOWASCO
WASREB Impact Report 16	2024	WASREB
KICOWASCO Strategic Plan	Feb-22	KICOWASCO

PIAP Planning Tool	May-25	Reworked submission
Draft PIAP Template and Guidance Notes	2024	World Bank / K-WASH

Annex 3 Risk and Mitigation Matrix

Risk Category	Paraphrased Risk Description	Likelihood	Impact	Revised Mitigation Measures	Responsible Party
Financial	Potential delays in accessing KSh 280M funds due to incomplete reports or unmet criteria	Medium	High	Strengthen PIU capacity, automate reporting through ERP, and submit quarterly updates	MD, Finance, PIU
Operational	NRW reduction efforts affected by old network maps and missing pipeline data	High	High	Prioritize GIS and block mapping in Year 1, recruit a GIS technician	Technical Manager, Projects Unit
HR/Institutional	Resistance from staff to restructuring, ERP use, or PIU changes	Medium	Medium	Involve unions early, provide staff retraining, introduce performance-based incentives	MD, HR, Board
Technical	Underperformance of solar systems due to poor design or inconsistent weather	Low	Medium	Adopt hybrid solar solutions and conduct expert site assessments pre-installation	Technical Dept, Solar Contractor
Procurement/Delays	Procurement lags for critical items like pipes and meters slow project progress	High	High	Use ERP to track procurement, pre-qualify suppliers, and escalate delays as needed	Procurement Unit, MD
Governance	Inadequate Board oversight or conflicts with the County Water Department	Medium	High	Schedule yearly joint reviews of PIAP and hold induction sessions for Board and County teams	MD, Board Chair, County CEC
Customer Behavior	Customers push back against metering, e-billing, or new tariffs after expansion	Medium	Medium	Roll out early education and awareness campaigns at community/ward level	Commercial/PR Unit
Revenue Risk	Poor revenue collection persists due to customer unwillingness, despite digital systems	Medium	High	Enforce disconnections, apply penalties, and enhance the field enforcement team	Commercial Manager
Environmental/Social	Sanitation infrastructure delays from missing EIA/NEMA permits or land ownership complications	Medium	Medium	Conduct EIAs early and coordinate with County Lands Department for approvals	Projects Team, County Liaison

IT/System Risk	ERP or billing systems may fail due to unpaid vendor dues or lack of support agreements	High	High	Clear outstanding ERP payments and establish annual contracts for technical support	Finance, IT Unit

Annex 4: Implementation Chart – PIAP Implementation Schedule (2025–2030)

The chart below shows the **phased sequencing** of KICOWASCO's PIAP activities over five years. Priorities are front-loaded in Years 1–2 to unlock early performance-based disbursements, with scale-up activities and institutional reforms stretching across the full PIAP period.

ACTIVITY	2025	2026	2027	2028	2029	2030
Preparation and approval	✓					
Preparation of designs	✓					
DMA creation and zonal metering	✓	✓	✓			
Pipeline extensions & Line rehabilitation of schemes	✓	✓	✓	✓	✓	✓
Last mile connectivity on sewer	✓	✓	✓	✓	✓	✓
Installation of ERP software		✓				
Customer retention & marketing	✓	✓	✓	✓	✓	✓
Tariff reviews & regulator engagement	✓					
Targeted collection for high-risk accounts	✓	✓	✓	✓		
Communication improvement	✓	✓	✓			
Regular account status updates	✓	✓	✓			

ACTIVITY	2025	2026	2027	2028	2029	2030
Installation of ERP software			✓			
Establish base maps with free GIS and import collected data on customer meters		✓				