COUNTY GOVERNMENT OF KERICHO

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THE KERICHO COUNTY WATER AND SANITATION STRATEGY AND INVESTMENT PLAN

2025-2030

May 2025

Prepared By:
The Technical Working Group (TWG), County Government of Kericho
Under the Kenya Water, Sanitation and Hygiene (K-WASH) Program

FOREWORD

The right to clean and safe water and adequate sanitation is enshrined in our Constitution as a fundamental human right. It speaks not only to human dignity but also to the future we envision for every child, every woman, and every man in Kericho County. Access to water and sanitation underpins public health, education, food security, economic productivity, and social cohesion. It is the very foundation upon which resilient, prosperous, and equitable societies are built.

Today, we take an important and historic step forward. The Countywide Water and Sanitation Strategy and Investment Plan (CWSSIP) we unveil is a bold expression of our collective will to accelerate progress toward universal access to safe water and dignified sanitation for all Kericho residents. It is a comprehensive, inclusive, and evidence-driven roadmap that will guide our actions through the year 2030 and beyond. This Strategy has been developed through an intensive and consultative process, involving county leadership, technical experts, Water Service Providers, community representatives, development partners, and the private sector. It reflects the real aspirations of our people — to live in a country where no child must walk for hours to fetch water, where every healthcare facility has clean running water, where our schools offer safe and dignified sanitation, and where households and enterprises can thrive in a clean, healthy environment.

CWSSIP outlines clear priorities: rehabilitating and expanding our water infrastructure, promoting climate-resilient and inclusive solutions, strengthening governance and regulatory frameworks, enhancing service delivery models, and mobilizing the financial resources required for sustainable growth. It also emphasizes innovation, community ownership, gender inclusion, environmental conservation, and resilience to climate change impacts that increasingly threaten our water security.

In implementing this Strategy, Kericho County will align fully with national development agendas and international commitments, ensuring that we contribute meaningfully to Kenya's Vision 2030, the Sustainable Development Goals, and the aspirations of Agenda 2063. But beyond the policies and plans, it is the everyday experiences of our citizens that will tell the true story of our progress — when mothers in rural villages can access safe water within their homes, when hospitals can guarantee hygiene and infection control, when schools can provide healthy and safe learning environments, and when farmers can irrigate their fields and secure livelihoods.

I wish to extend my sincere appreciation to all the teams, institutions, and partners who have contributed to the development of this transformative document. Your expertise, commitment, and shared vision for a better Kericho are deeply valued. I especially thank our County Executive and technical departments, the Water and Sanitation sector stakeholders, our communities, and the development agencies that continue to walk this journey with us. As the Governor of Kericho County, I reaffirm my personal and institutional commitment to the full realization of this Strategy. We will invest wisely, govern transparently, consult openly, and deliver inclusively.

I call upon all citizens, all stakeholders, and all development partners to join hands with us. The journey ahead requires unity, sacrifice, innovation, and resolve. Let this Strategy serve not merely as a plan on paper but as a living covenant with the people of Kericho — a covenant to ensure that safe water and dignified sanitation are realities for every household, every institution, and every future generation.

H.E. Dr. Eric Mutai, PhD
Governor, Kericho County

FOREWORD

The Constitution of Kenya (2010) recognizes access to clean and safe water in adequate quantities and reasonable standards of sanitation as a basic human right. The County Government of Kericho, in line with its devolved mandate under the Fourth Schedule, remains steadfast in realizing these fundamental rights for all its citizens. This Countywide Water and Sanitation Strategy and Investment Plan (CWSSIP) represents a bold, forward-looking framework to steer Kericho County towards achieving universal access to safe water and sanitation services by 2030. Anchored in Kenya's Vision 2030, the Sustainable Development Goals (SDG 6), the National Water and Sanitation Investment Program (NAWASIP), and the K-WASH Program guidelines, the CWSSIP is the result of an inclusive and consultative process that engaged all key stakeholders.

The strategy outlines clear investment priorities and sector reforms necessary to address service delivery gaps, climate risks, governance challenges, and financing constraints. It strongly emphasizes environmental sustainability, resilience to climate change, and the promotion of integrated water resource management. We are proud to present this Plan as a living document that not only sets a comprehensive investment roadmap but also ensures that interventions are efficient, equitable, and inclusive. Its successful implementation will require the concerted efforts of the County Government, Water Service Providers, the National Government, development partners, and the communities we serve.

As the custodians of water and sanitation services in Kericho County, we affirm our full commitment to implementing this Plan. We extend our heartfelt gratitude to all the partners who have contributed to this process, particularly the World Bank under the K-WASH Program, the Water Services Regulatory Board (WASREB), the Lake Victoria South Water Works Development Agency (LVSWWDA), and all stakeholders who provided technical and logistical support.

Together, let us deliver on the promise of clean water and dignified sanitation for every household, school, health facility, and public space across Kericho County.

Hon. Philemon Kurgat
County Executive Committee Member
Water, Energy, Environment, Forestry and Natural Resources

Mr. Richard Kiplangat Mitei
Chief Officer,
Water, Energy, Environment,
Forestry and Natural Resources

FOREWORD

Access to safe water, adequate sanitation, and hygiene services is foundational to good health, dignity, and human development. As articulated under Article 43 of the Constitution of Kenya, the right to water and sanitation is directly linked to the right to health, making the Water, Sanitation and Hygiene (WASH) agenda a cornerstone of public health programming.

The Countywide Water and Sanitation Strategy and Investment Plan (CWSSIP) provides an essential framework that integrates water, sanitation, and hygiene (WASH) into our health systems, schools, and public facilities. It recognizes that improving water quality, sanitation, and hygiene infrastructure in healthcare settings, marketplaces, and learning institutions is critical to reducing preventable diseases, lowering maternal and child mortality, and improving the quality of life for all residents of Kericho County.

This Plan aligns with national policies, including the Kenya Health Policy 2014–2030, the National WASH and Menstrual Hygiene Management (MHM) Strategy, the Sustainable Development Goals (SDG 3 and 6), and the Kenya National Water and Sanitation Investment Plan (NAWASIP). It is also consistent with the aspirations of the Universal Health Coverage agenda.

The CWSSIP outlines targeted investments to bridge WASH gaps in health care facilities, address menstrual hygiene management challenges, and promote behavior change interventions critical to building resilient communities. We are confident that the implementation of this Plan will have a transformational impact on the health outcomes of our population, especially the most vulnerable.

We commend all stakeholders who have contributed to the development of this important strategy and reaffirm the Department of Health's unwavering commitment to its successful implementation.

Through strategic collaboration, community engagement, and evidence-based investments, we shall build a healthier, more resilient, and more dignified Kericho.

Hon. Dr. David Ekuwam
County Executive Committee Member
Health Services
Kericho County

Dr. Japhet Cheruiyot
Chief Officer
Health Services
Kericho County

EXECUTIVE SUMMARY

I. Introduction and Strategic Rationale

The Kericho County Water and Sanitation Strategy and Investment Plan (CWSSIP) 2025–2030 provides a strategic, costed, and investment-ready framework to accelerate access to safe, inclusive, and climate-resilient water, sanitation, and hygiene (WASH) services across the county. It sets out a comprehensive roadmap for achieving universal WASH coverage by 2030 and ensuring that no one is left behind.

Anchored in Kenya's Vision 2030, the Constitution of Kenya 2010, the Water Act 2016, the National Water and Sanitation Investment Plan (NAWASIP 2022–2030), and the Kericho County Integrated Development Plan (CIDP 2023–2027), the CWSSIP aligns with Sustainable Development Goal 6 and the K-WASH Program's Results-Based Financing (RBF) and Performance-Based Granting (PBG) framework. It is also fully compliant with the technical guidance and data tools provided by the Ministry of Water, Sanitation and Irrigation (MoWSI) and the World Bank.

The Strategy was developed through a multi-stakeholder and evidence-based process that brought together the County Technical Working Group (TWG), Kericho Water and Sanitation Company (KEWASCO), key development partners, community representatives, and Rabudi Consultants. It draws from primary datasets — including the Kericho County WASH Baseline Survey 2025, School WASH Situational Analysis, Health Facility Assessments, and the County Participatory Climate Risk Assessment (PCRA) — as well as regulatory and financial data from WASREB, KDHS 2022, KEWASCO Strategic Plan and Business Plan (2023–2026), and official county budget records. The CWSSIP is also fully aligned with Kericho's PEF under the K-WASH Program.

II. Situational Analysis and Strategic Focus

Despite notable progress in service delivery, significant WASH access gaps remain. As of 2025, only 64% of the urban population and 35% of the rural population have access to at least basic water services. Safely managed sanitation is accessed by just 12% of households countywide, with over 35% relying on unimproved sanitation or practicing open defecation. Institutional WASH facilities remain inadequate, with only 26% of schools and 48% of health facilities meeting basic WASH standards. Non-Revenue Water (NRW) remains above 47%, and financial sustainability for KEWASCO is constrained by rising operational costs and low cost recovery in low-income areas.

Climate change further exacerbates WASH service vulnerability in Kericho. Increasing frequency of flash floods, prolonged droughts, landslides, and ecosystem degradation affect both surface and groundwater availability. The CWSSIP integrates climate risk mitigation, green infrastructure, and catchment-based management into its project prioritization and investment framework.

III. Vision, Objectives, and Investment Plan

The CWSSIP's vision is **"universal access to climate-resilient, safe, affordable, and inclusive water, sanitation, and hygiene services for all residents of Kericho County by 2030."** The Strategy is organized around six strategic pillars:

a) **Equitable Access to Water Services** – expansion and rehabilitation of rural and urban water systems;
b) **Sanitation Transformation** – investments in sewered and non-sewered sanitation, institutional WASH, and faecal sludge management (FSM);
c) **Hygiene Promotion and MHM** – scaled interventions in schools and HCFs, with a special focus on menstrual hygiene management (MHM);
d) **Climate-Proofed Infrastructure** – spring protection, solar pumping, rainwater harvesting, and nature-based solutions;
e) **Institutional Reforms and Digital Transformation** – strengthening KEWASCO governance, customer audits, ERP rollout, and tariff restructuring;
f) **Monitoring, Evaluation, and Sector Coordination**: Establishment of a County WASH Hub and unified data reporting systems.

A comprehensive investment plan has been developed to achieve universal access to water, sanitation, and hygiene services across Kericho County by 2030. This plan identifies priority interventions informed by a triangulation of data from the Performance Enhancement Framework (PEF), Appendix 1, the National Water and Sanitation Investment Program (NAWASIP), and the County water and sanitation master plan.

The proposed projects encompass both rural and urban settings, targeting water supply expansion, sanitation service improvements, water resource management initiatives, and institutional reforms. Careful attention has been paid to ensure that interventions are climate-resilient, socially inclusive, and aligned with national and global targets such as Kenya's Vision 2030, the Sustainable Development Goals (SDG 6), and the Lake Region Economic Bloc (LREB) WASH Strategy.

The total indicative investment required over the period 2025–2030 is estimated at approximately KSh 12.3 billion, distributed across key strategic areas. This investment framework aims to bridge current service gaps, enhance operational efficiency, build resilience against climate impacts, and foster sustainable management of water resources.

The investments are categorized under the following thematic areas:

a) Water Supply Infrastructure Development and Rehabilitation
b) Sanitation and Hygiene Services Expansion
c) Water Resources Management and Catchment Conservation
d) Institutional Reforms and Service Delivery Strengthening

Table 0.1 below summarizes the investment needs by strategic priority area.

Table 0.1: Summary of Strategic Investment Needs (2025–2030)

Service Area	Estimated Investment (KES Billion)	% of Total Envelope
Water Supply (Urban & Rural)	5.62	45.7%
Sanitation (Sewered & On-site)	2.47	20.1%
Hygiene and MHM	0.63	5.1%
Water Resources and Catchment Management	0.67	5.4%
Institutional Strengthening & Digitization	0.71	5.8%
Climate Resilience and Emergency Preparedness	1.05	8.5%
Monitoring, Governance & Social Inclusion	0.53	4.3%
Total	**12.30**	**100%**

Source: Kericho County Integrated Water Masterplan, NAWASSIP, and K-WASH PEF Consolidation, 2025.

IV. Action Needed

The CWSSIP provides a credible, participatory, and investment-ready roadmap for Kericho to meet its constitutional and global WASH obligations. Its successful implementation requires sustained commitment and collaboration between the County Government, KEWASCO, national agencies (LVSWWDA, WRA, WSTF), development partners (World Bank, AfDB, NGOs), and communities. If implemented in full, the CWSSIP will not only transform access to WASH services across Kericho but also serve as a regional model of WASH sector performance within the Lake Region Economic Bloc (LREB).

ABBREVIATIONS AND SYNONYMS

ADP	Annual Development Plan
CAPEX	Capital Expenditure
CBO	Community-Based Organization
CBS	Container-Based Sanitation
CIDP	County Integrated Development Plan
CLTS	Community-Led Total Sanitation
CGoK	County Government of Kenya
CSA	Climate-Smart Agriculture
CWSSIP	County Water and Sanitation Strategy Investment Plan
DLI	Disbursement-Linked Indicator
DEWATS	Decentralized Wastewater Treatment Systems
ECDE	Early Childhood Development and Education
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
FGD	Focus Group Discussion
FLLoCA	Financing Locally-Led Climate Action
FSM	Faecal Sludge Management
FSTP	Faecal Sludge Treatment Plant
GCP	Gross County Product
GIS	Geographic Information System
HCF	Healthcare Facility
IPC	Infection Prevention and Control
JMP	Joint Monitoring Programme (by WHO/UNICEF)
KEWASCO	Kericho Water and Sanitation Company
KIWASH	Kenya Integrated Water, Sanitation, and Hygiene Project
KES	Kenya Shillings
KSH	Kenya Shillings (alternative abbreviation)
KTDA	Kenya Tea Development Agency
LU	Livestock Unit
LVSWWDA	Lake Victoria South Water Works Development Agency
M&E	Monitoring and Evaluation
MHM	Menstrual Hygiene Management
MoE	Ministry of Education
MoWSI	Ministry of Water, Sanitation, and Irrigation
MUS	Multiple Use Services
NAWASIP	National Water and Sanitation Investment Plan
NCCAP	National Climate Change Action Plan
NGO	Non-Governmental Organization
NRW	Non-Revenue Water
O&M	Operations and Maintenance
OBA	Output-Based Aid
OPEX	Operational Expenditure
PEF	Program Expenditure Framework
PWD	Persons with Disabilities

RBF	Results-Based Financing
SCMP	Sub-Catchment Management Plan
SDG	Sustainable Development Goal
SFD	Shit Flow Diagram
SME	Small and Medium Enterprise
SPA	Service Provision Agreement
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
WASREB	Water Services Regulatory Board
WASH	Water, Sanitation, and Hygiene
WRA	Water Resources Authority
WRUA	Water Resource Users Association
WSP	Water Service Provider
WSSF	Water Services Stakeholder Forum
WSTF	Water Sector Trust Fund
WUA	Water User Association
WSIGCCF	Water Sector Intergovernmental Consultation and Cooperation Framework
WWDA	Water Works Development Agency

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CHAPTER 1: COUNTY SOCIO-ECONOMIC AND POLITICAL CONTEXT

1.1 Socio-Political and Administrative Background

1.1.1 Overview of the County's Geographic, Demographic, and Economic Context

Kericho County is located within Kenya's South Rift region and covers approximately 2,456 km². Nandi, Bomet, Nakuru, Nyamira, Kisumu, and Uasin Gishu Counties border it. It is situated between latitudes 0°05' and 0°50' South and longitudes 35°02' and 35°40' east. The county's topography ranges from undulating highlands in Londiani and Belgut to lowland flood-prone plains in Soin/Sigowet.

The county is administratively divided into six sub-counties (Ainamoi, Belgut, Bureti, Kipkelion East, Kipkelion West, and Soin/Sigowet) and 30 electoral wards. The administrative capital is Kericho Town, which also serves as the main economic and urban hub.

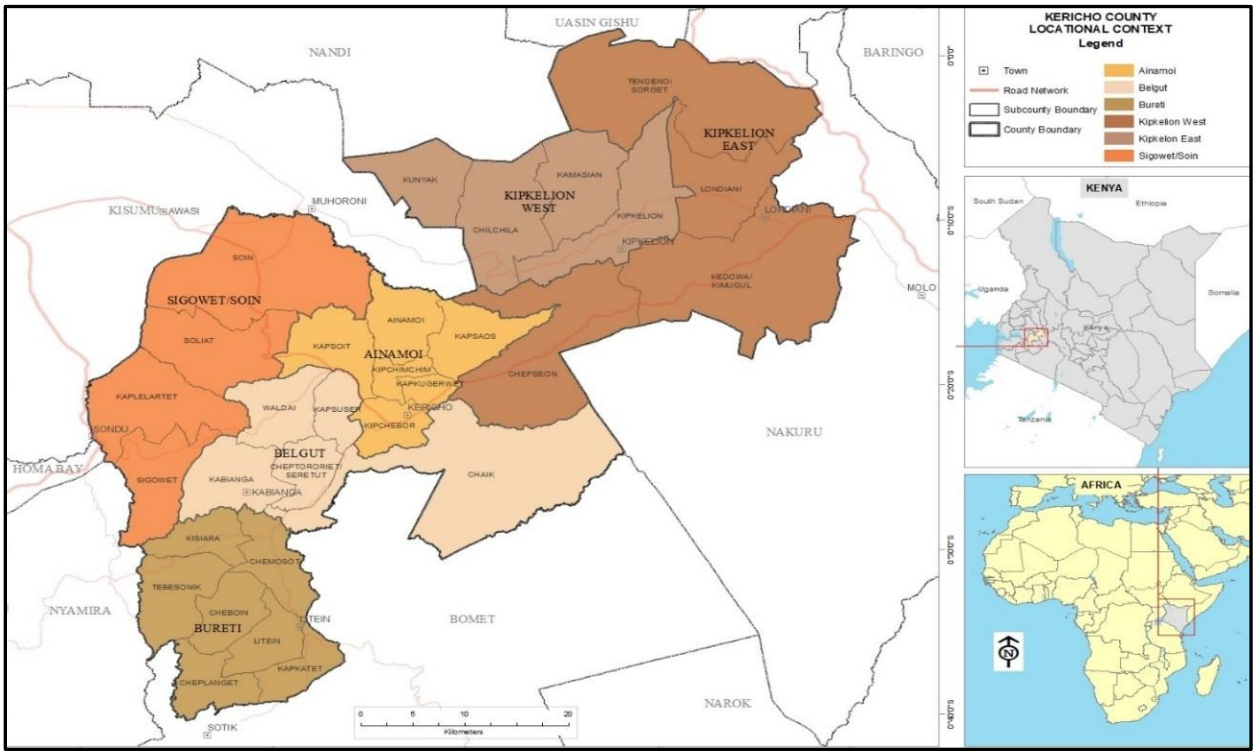

Figure 1.1: Kericho County Administrative Sub-Counties

1.1.1.1 Population Size, Growth, and Gender Disaggregation

As per the 2019 Kenya Population and Housing Census, the total population was 901,777, comprising:

a) 450,741 males (49.9%)
b) 451,508 females (50.1%)
c) 28 intersex persons

The average household size was 4.4 persons. Approximately 22% of the population resided in urban areas, while the remainder lived in rural settlements and farming zones. The county's population is growing at

an estimated annual rate of 2.3%, consistent with national demographic trends. Based on this growth rate, the county's projected population is as follows:

Table 1.1: Kericho County Population Projections (2022–2030)

Year	Projected Population	Male (49.9%)	Female (50.1%)
2022	974,325	486,170	488,155
2023	996,740	497,446	499,294
2024	1,019,648	509,309	510,339
2025	1,043,054	521,666	521,388
2026	1,066,961	534,517	532,444
2027	1,091,374	547,868	543,506
2028	1,116,299	561,727	554,572
2029	1,141,740	576,101	565,639
2030	1,167,703	590,997	576,706

Source: Kenya National Bureau of Statistics (KNBS), 2022; Kericho County CIDP 2023–2027

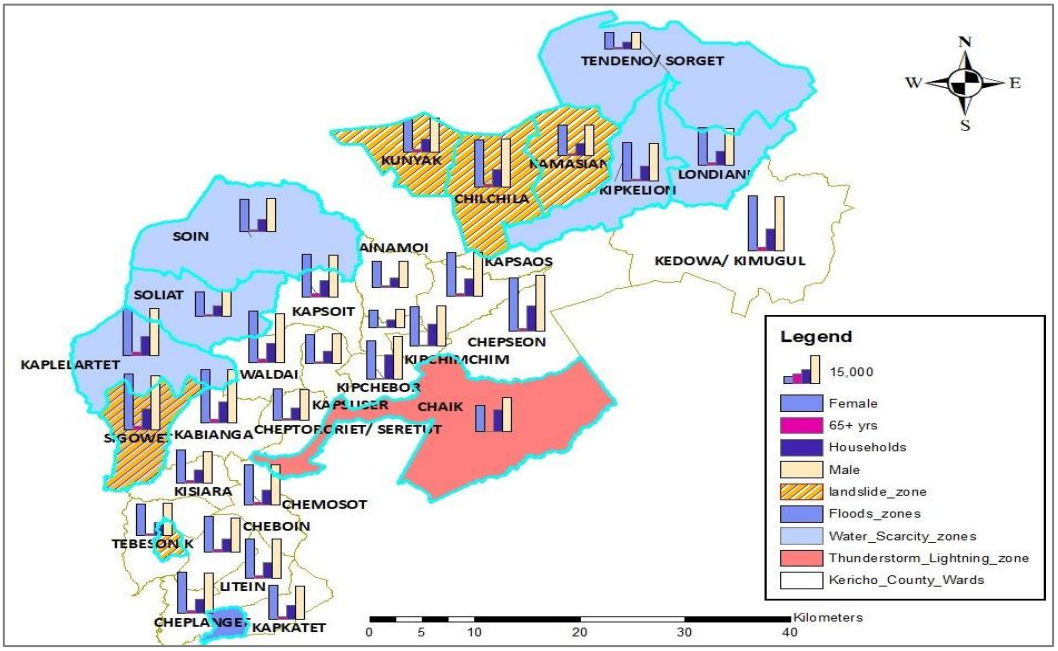

Figure 1.2: Kericho County Social and Gender Vulnerability

1.1.1.2 Urbanization Trends and Spatial Distribution

Kericho is experiencing a moderate but steady pace of urbanization, with a current estimated population distribution of 22% urban and 78% rural. Urban centers such as Kericho Town, Londiani, and Litein are expanding due to increased investments, infrastructure development, and internal migration. This trend places growing pressure on existing water and sanitation systems, particularly in low-income and peri-urban areas.

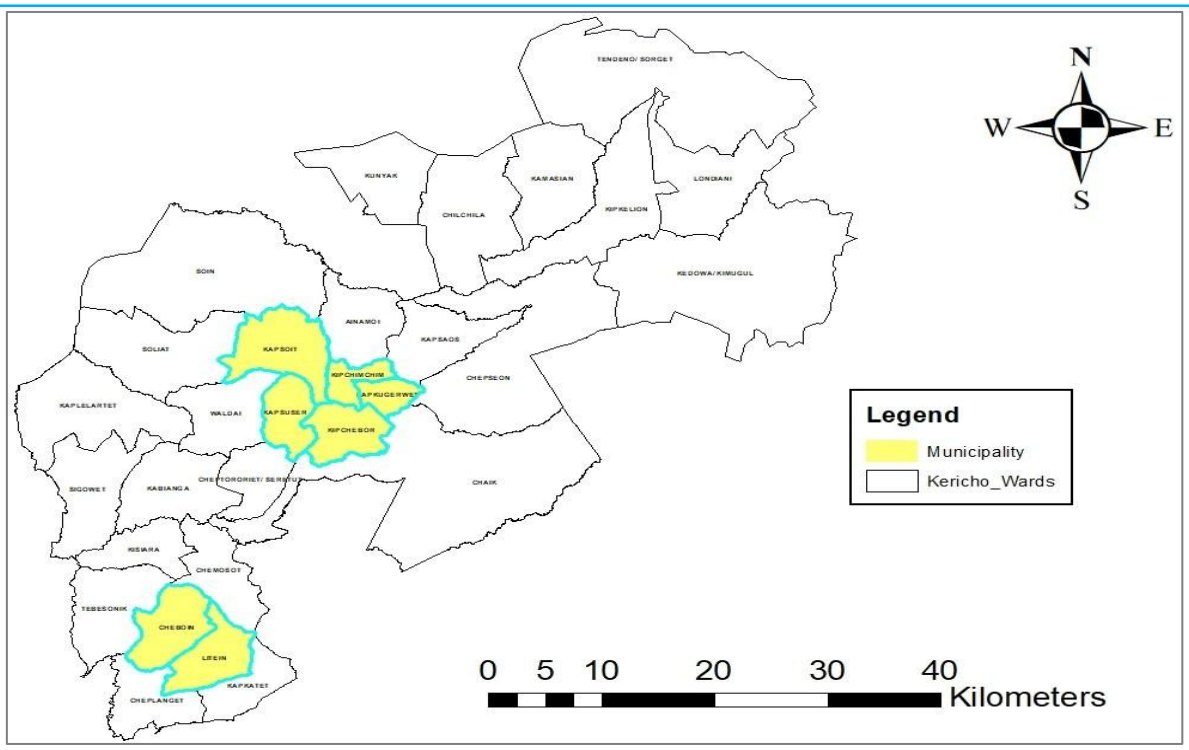

Figure 1.3: The Municipalities within Kericho County

Although Kericho is historically rural, it is undergoing gradual urbanization:

a) The urban population stood at approximately 198,000 in 2022.
b) By 2030, this is expected to reach 320,000–350,000, translating to 28–30% urbanization.
c) Major urban centers experiencing growth include:

- Kericho Town, Brooke, Kapsoit (Ainamoi Sub-County)
- Londiani and Chepsion (Kipkelion East)
- Litein and Kapkatet (Bureti)
- Sondu (Soin/ Sigowet)

This urban transition is driven by:

- Expansion of road infrastructure (e.g., Londiani-Muhoroni corridor);
- Investment in markets, schools, and health centers;
- Migration of youth and land subdivision in tea estate peripheries.

This trend is creating greater demand for piped water, faecal sludge management, and stormwater drainage in peri-urban and informal areas, such as Kipchimchim, Kiptugumo, and Kapsoit.

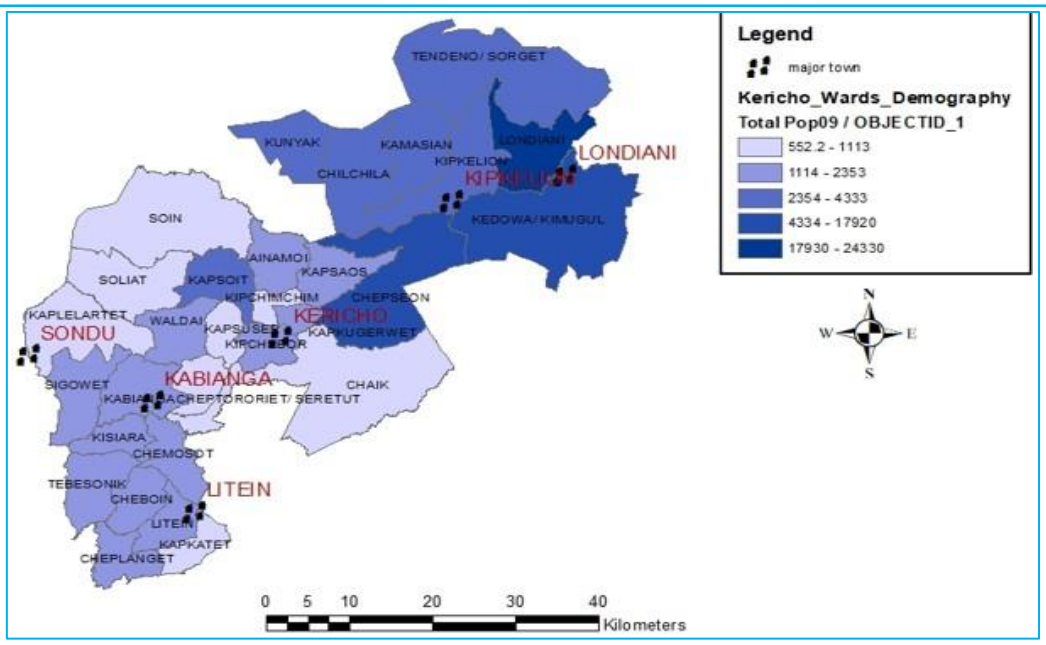

Figure 1.4: Mapping the Projected Population Density (2025)[1]

Table 1.2: Projected WASH Service Demand by Sub-County (2025)

Sub-County	Projected Population (2025)	Est. Daily Water Demand (m^3/day)	Est. Sanitation Facility Gap (units)
Ainamoi	210,000	4,200	12,000
Belgut	180,000	3,600	10,500
Bureti	175,000	3,500	10,200
Kipkelion East	150,000	3,000	8,800
Kipkelion West	125,000	2,500	7,400
Soin/Sigowet	130,000	2,600	7,700

1.1.1.3 Economic Growth Overview (GCP, Sectoral Trends)

According to the Gross County Product (GCP) Report by KNBS, Kericho contributed approximately 1.4% to the national GDP, with a per capita GCP of about KSh 137,000 in 2019.

Table 1.3: Gross County Product (GCP) Profile for Kericho County

Sector	GCP Contribution (KSh Million)	Percentage of Total (%)
Tea and Agriculture	34,000	54.8%
Manufacturing	9,200	14.8%
Trade and Services	7,800	12.6%
Tourism and Hospitality	2,100	3.4%
Public Administration	1,900	3.1%
Others	1,000	1.6%
Total	56,000	100%

[1] *This support prioritization of WASH infrastructure investments in densely populated and fast-growing areas like **Brooke**, **Kapkatet**, and **Kipchimchim**.*

According to the KNBS Gross County Product Report:

a) Kericho's economy contributes approximately 1.4% to Kenya's GDP.
b) The county had a per capita Gross County Product of KSh 137,000 in 2019.
c) Economic growth is largely driven by:
    - Tea production and processing, with over 25 multinational and KTDA-managed factories;
    - Dairy farming in Kipkelion and Belgut;
    - Horticulture and small-scale irrigation in Bureti and Soin;
    - Service industries and public institutions in urban nodes.

While agriculture remains the backbone, urban-based SMEs, market trade, and light manufacturing are gaining prominence, especially in Kericho Town and Londiani. The county is globally renowned for its high-quality tea production, supported by favorable agro-ecological conditions. Other key sectors include dairy farming, horticulture, agro-processing, tourism, and a growing services sector. Demographic and Climatic Trends Affecting WASH Demand

Kericho's relatively young and growing population exerts pressure on existing WASH infrastructure, particularly in schools and market centers. The county's bimodal rainfall pattern—averaging between 1,400 mm and 2,000 mm annually—supports surface and groundwater recharge, but also increases vulnerability to seasonal floods and runoff contamination, particularly in lowland areas of Soin-Sigowet and Kipkelion. Climate variability, characterized by erratic rainfall and prolonged dry spells in certain sub-counties, affects water availability and quality, thus influencing the design and resilience needs of water and sanitation systems. Urban expansion, coupled with land-use change, continues to alter surface water runoff dynamics and affect traditional water sources.

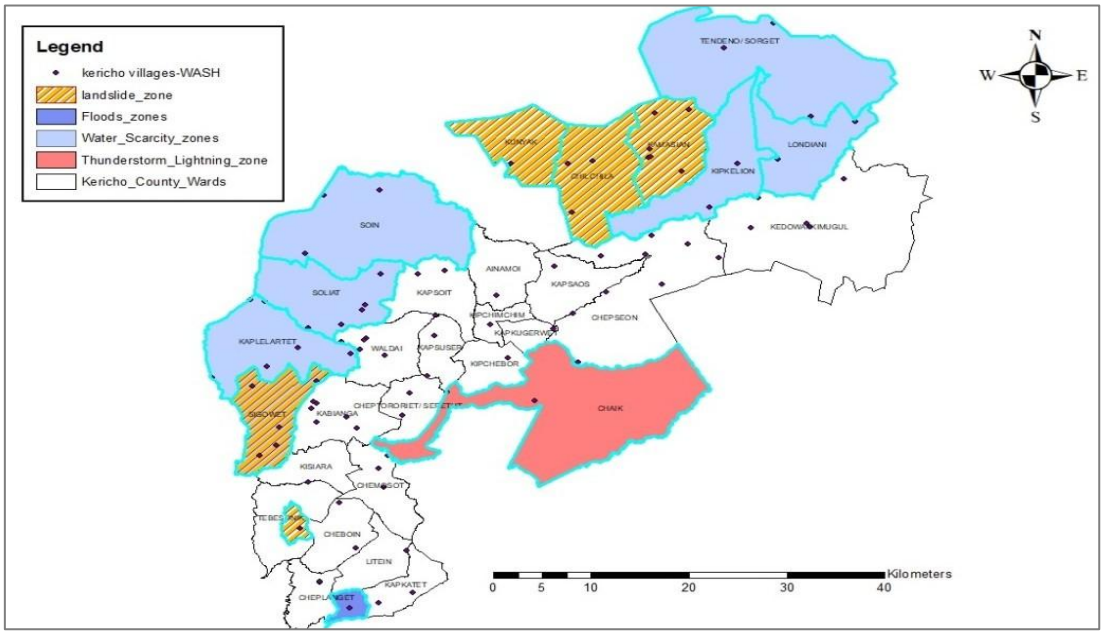

Figure 1.5: Climate Risk Zones in Kericho County

1.1.1.4 Key Demographic and Climatic Trends Influencing WASH Demand

a) Youthful and Expanding Population
    - With over 60% of the population below age 35, pressure is mounting on schools, healthcare facilities, and urban sanitation infrastructure.

b) Climate Variability

- The county experiences bimodal rainfall (long rains in March–June; short rains in October–December).
- Annual precipitation ranges from 1,400 to 2,000 mm, but dry spells and flash floods are increasing in frequency.
- Sub-counties like Soin/Sigowet and Kipkelion East face seasonal droughts, while Belgut and Bureti are vulnerable to flooding and erosion.

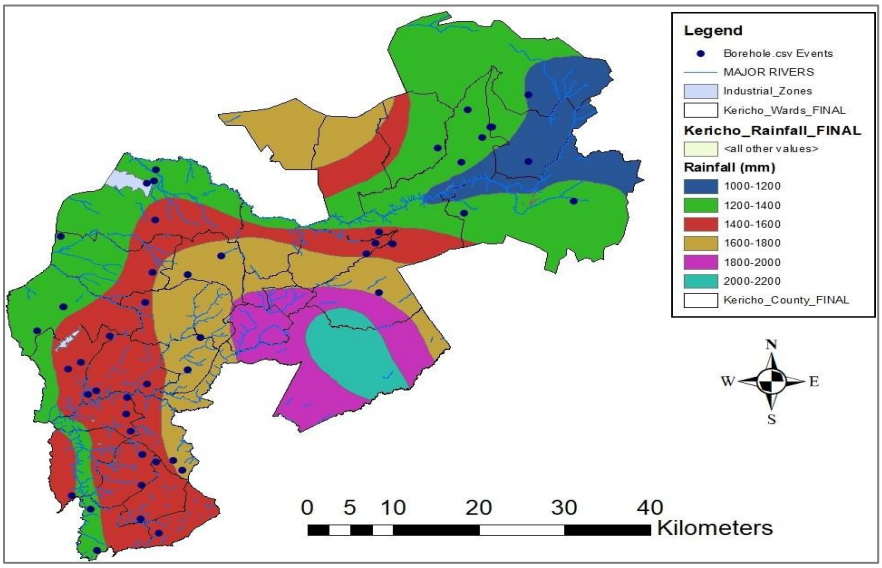

Figure 1.6: Rainfall Distribution Pattern and the Water Resources Distribution

c) Settlement and Land-Use Change

- Deforestation, land fragmentation, and informal housing are rising in peri-urban areas.
- This has led to over-reliance on shallow, unprotected sources, especially in rural public institutions.

These dynamics require WASH service planning that anticipates rapid shifts in settlement density, climatic extremes, and intergenerational needs.

1.1.1.5 Implications for Service Planning and Delivery

- By 2030, Kericho's total population will require water, sanitation, and hygiene services scaled to meet nearly 1.2 million people, with differentiated needs for urban vs rural settlements.
- Urban WSPs like KEWASCO will need to double their supply and expand sewerage coverage to meet projected demand.
- Rural and peri-urban systems must integrate climate-resilient technologies, such as solar pumping, rainwater harvesting, and protected springs, particularly in areas with high climate risk.
- Institutional infrastructure (schools and health facilities) will require proportional investments based on enrolment and catchment population growth.

1.1.2 Governance Structures and Institutional Roles in Water and Sanitation

The governance of the water and sanitation sector in Kericho County operates within the broader framework of Kenya's devolved system of government, as established by the Constitution of Kenya, 2010,

and the Water Act, 2016. Responsibilities are distributed between national institutions, county government departments, and Water Service Providers (WSPs), with further participation from non-state actors and development partners.

1.1.2.1 County-Level Governance and Institutional Mandates

The County Government of Kericho has the constitutional mandate for the development and management of county public works related to water and sanitation services. These functions are executed through the Department of Water, Energy, Environment, Natural Resources, and Forestry (WEENRF). Key responsibilities of the department include:

a) Planning, design, and implementation of rural water and sanitation infrastructure;
b) Coordination of water resource management at the local level;
c) Environmental conservation and climate resilience mainstreaming in water-related planning;
d) Collaboration with other stakeholders on sanitation marketing, hygiene promotion, and inclusive WASH programming.

The department also coordinates closely with other relevant sectors such as health, education, and urban development, especially in school and healthcare facility WASH.

Kericho Water and Sanitation Company (KEWASCO), the county's licensed WSP, largely implements water and sanitation services. KEWASCO operates under a Service Provision Agreement (SPA) regulated by the Water Services Regulatory Board (WASREB).

Table 1.4: Key County Institutions and Their Roles in Water and Sanitation

Institution	Mandate in Water and Sanitation
County Department of Water, Energy, Environment, Forestry, and Natural Resources	Planning, development, and regulation of water and sanitation services; resource mobilization
County Department of Health Services	Public health oversight; WASH in HCFs; hygiene behavior change campaigns, MHM integration
County Department of Education	WASH in schools, school sanitation programs, and MHM integration
KEWASCO	Urban and peri-urban water and sanitation service delivery
County Assembly	Approval of WASH budgets and policies
County Treasury	Budget allocation and financial oversight for WASH investments
County Climate Change Unit	Integration of resilience and adaptation into water and sanitation planning

1.1.2.2 National-Level Institutions Supporting County Water Governance

At the national level, several institutions play critical roles in supporting Kericho's water and sanitation agenda:

- Ministry of Water, Sanitation, and Irrigation (MoWSI): Provides policy direction and oversight and coordinates intergovernmental investment frameworks like NAWASIP.
- WASREB: Regulates WSPs, approves tariffs, and monitors performance through KPIs.
- Water Sector Trust Fund (WSTF): Provides financing for pro-poor rural and urban WASH projects.
- Lake Victoria South Water Works Development Agency (LVSWWDA): This agency supports bulk infrastructure and regional-scale projects, including dams and cross-county schemes.

- Water Resources Authority (WRA): Regulates water abstraction, permits, and catchment protection.

1.1.2.3 Coordination and Climate Resilience Mainstreaming

A County WASH Taskforce has been constituted to coordinate multi-sectoral engagement in the implementation of the CWSSIP. This task force comprises representatives from various sectors, including water, health, climate change, education, finance, and the private sector. Its role is to facilitate stakeholder alignment, mobilize resources, oversee performance monitoring, and provide feedback to the County Executive.

Efforts are underway to integrate climate resilience into water and sanitation planning through:

- Adoption of nature-based solutions (e.g., reforestation of catchments);
- Promotion of solar-powered water supply systems in rural areas;
- Development of flood- and drought-resilient WASH infrastructure in vulnerable zones;
- Mapping of climate-induced WASH vulnerabilities, particularly affecting informal settlements and low-income wards.

1.1.2.4 Role of Non-State Actors and Private Sector

The county collaborates with various NGOs, CBOs, and faith-based organizations in community-based water management, behavior change communication, and hygiene promotion. Notably, organizations such as UNICEF, the Red Cross, and Water.org have supported WASH improvements in institutions and vulnerable communities.

The private sector is also playing an increasingly significant role in the provision of sanitation goods and services, particularly in urban trading centers. The county is working towards enhancing private sector participation through the adoption of Public-Private Partnership (PPP) models for faecal sludge management, small-scale sanitation enterprises, and household water treatment solutions.

1.1.3 Environmental and Socio-Political Factors Affecting Water and Sanitation Service Delivery

A range of environmental, political, and social dynamics influences Kericho County's water and sanitation landscape. These factors vary across its six sub-counties and directly affect infrastructure development, service reliability, and public acceptance of WASH interventions.

1.1.3.1 Environmental Factors

a) Topography, Rainfall, and Watershed Pressures

Kericho County enjoys high rainfall, averaging 1,400–2,000 mm annually, making it one of Kenya's key water catchment zones. However, the hilly terrain, especially in Belgut, Bureti, and Kipkelion West, presents challenges for gravity-fed water systems, pipe routing, and road accessibility for maintenance. Meanwhile, sub-counties like Soin/Sigowet are increasingly exposed to runoff-related erosion and source contamination.

The Itare River Catchment, a critical water source in the highlands, is under growing pressure from upstream deforestation, tea estate expansion, and land conversion. Riparian zones near the

Timbilil, Chemosit, and Kipchorian rivers are frequently encroached upon, raising sedimentation and pollution risks downstream.

b) Climate Variability and Vulnerability

Although classified as a high-potential area, Kericho faces climate-induced stressors, particularly seasonal flooding in low-lying wards such as Kaplelartet and Kapsuser, and extended dry spells in parts of Kipkelion East and Soin/Sigowet. These events damage rural water points, latrines, and WASH infrastructure in schools and health facilities, as observed in the 2023 WASH Baseline Survey.

These risks are compounded by a lack of investment in climate-resilient WASH systems, such as elevated latrines, rainwater harvesting, and protected springs. Few facilities, such as Soliat Health Centre and Litein Primary School, have invested in such adaptations despite their vulnerability.

1.1.3.2 Socio-Political Factors

a) Governance and Institutional Gaps

Although the Department of Water, Energy, Environment, Natural Resources, and Forestry (WEENRF) is the lead WASH actor, service delivery remains fragmented. The Kericho Water and Sanitation Company (KEWASCO), which serves urban and peri-urban areas such as Kericho Town, Londiani, and Litein, often overlaps with rural schemes run by community groups or NGOs.

Limited coordination with national agencies, such as LVSWWDA, and weak enforcement of water-related bylaws have led to uneven WASH investments. For instance, while KEWASCO has made significant progress in metering and NRW reduction in Kericho Town, the surrounding informal settlements such as Nyagacho, Baraka, and Majengo remain underserved.

b) Land Tenure and Informal Settlement Challenges

Unresolved land tenure issues hinder the development of WASH infrastructure in areas such as Kapkugerwet and the fringes of Kapsoit Trading Centre. The absence of clear ownership affects the siting of public toilets, boreholes, and sanitation blocks.

c) Equity and Political Targeting

Community consultations indicate that WASH projects are sometimes allocated based on political considerations rather than data-driven need. This has led to project clustering in certain wards and under-investment in marginalized areas such as Kipsolu and parts of Chepseon.

d) Behavioral Norms and Community Engagement

Despite CLTS campaigns, pockets of open defecation persist in remote villages in Kipkelion West and Soin, driven by low latrine adoption, cost barriers, and cultural preferences. In contrast, urban markets like Kapkatet and Brooke report sanitation access challenges related more to population pressure and maintenance than behavioral resistance.

e) Gender and Vulnerability Dynamics

The burden of water collection falls disproportionately on women and girls, especially in wards without a piped supply like Kapsorok and Soliat. Yet, according to FGDs from the 2023 WASH Baseline, only 2 in 10 WASH committees countywide have women in leadership. In disability-inclusive planning, most public facilities and schools still lack PWD-compliant latrines and handwashing stations despite County guidelines.

Table 1.5: Socio-Political and Environmental Factors Influencing WASH in Kericho County

Factor	Description	WASH Impact
Deforestation and watershed loss	Encroachment on catchments like Chemosit and Kipchorian rivers	Reduced surface flow and increased water treatment costs
Flash floods	Seasonal floods in Soin/Sigowet, Kapsoit, Tebesonik	Infrastructure damage; latrine collapse
Institutional fragmentation	Weak coordination between KEWASCO, WRA, LVSWWDA, and community schemes	Overlap, duplication, and unequal coverage
Land tenure insecurity	Common in Kipchimchim and Kapkugerwet settlements	Delays in infrastructure siting
Cultural barriers to sanitation	Open defecation in Kipkelion West, latrine sharing norms	Low sanitation uptake; higher public health risks
Political allocation of resources	Unequal ward distribution; stronger projects in urban or politically active wards	Marginalization of low-profile areas
Gender imbalance in leadership	80% of WASH committees are male-dominated; women mainly serve as users	Exclusion of female voices in planning and MHM prioritization

1.1.4 Existing Legal and Policy Frameworks Governing Water and Sanitation at the County Level

The water and sanitation sector in Kericho County operates within a multi-tiered legal, policy, and regulatory framework, shaped by the Constitution of Kenya (2010), national legislation, international commitments, and evolving county-level frameworks. These instruments collectively guide service delivery, governance, investment, and performance monitoring in the county's WASH ecosystem.

1.1.4.1 Key Legal and Policy Instruments at National and County Level

a) Constitutional and Legal Foundations

i. Constitution of Kenya (2010): Article 43(1) (d) recognizes the right of every Kenyan to clean and safe water in adequate quantities and to reasonable standards of sanitation. The Fourth Schedule assigns water and sanitation service delivery to county governments, while bulk infrastructure and water resource management remain a national function.

ii. Water Act (2016): Provides the legislative framework for water governance. It establishes the roles of:

- County Governments: Responsible for water and sanitation service provision;
- Water Services Regulatory Board (WASREB): Sets and enforces service standards;
- Water Sector Trust Fund (WSTF): Finances pro-poor and climate-resilient water projects;
- Water Resources Authority (WRA): Manages water resource use, abstraction permits, and catchment protection;
- Water Works Development Agencies (WWDAs) such as LVSWWDA, which plan and implement bulk and cross-county infrastructure.

iii. Public Health Act (Cap 242)

Governs sanitation standards and waste disposal at the household and community levels. Applied by the County Department of Health in regulating public sanitation facilities, managing outbreaks, and inspecting institutions.

iv. Environmental Management and Coordination Act (EMCA, 1999)

Administered by NEMA, this Act provides for environmental impact assessments (EIA), pollution control, and protection of riparian zones and wetlands relevant to water and sanitation planning.

b) National Strategies and Guidelines

i. National Water Services Strategy (NWSS) 2020–2025: Provides targets for universal access and operational efficiency in WASH services.
ii. National Water Policy (2021 Draft): This policy reaffirms devolution in service delivery, promotes integrated water resources management (IWRM), and supports climate adaptation in the WASH sector.
iii. National Water and Sanitation Investment Plan (NAWASIP), 2022–2030: Aggregates county-level WASH plans to establish a coordinated investment framework, including results-based financing and PPP models.
iv. Kenya Environmental Sanitation and Hygiene Policy (KESH, 2016–2020) and CLTS Guidelines: These guidelines guide sanitation promotion in rural and informal urban areas, with a focus on community-led total sanitation (CLTS), menstrual hygiene, and inclusive access.
v. WASREB Guidelines: Include tariff-setting manuals, water quality standards, licensing procedures, and Key Performance Indicators (KPIs) for service providers like KEWASCO.

c) County-Level Laws and Policies

- Kericho County Integrated Development Plan (CIDP III, 2023–2027): This plan prioritizes water infrastructure expansion, sanitation in schools and markets, and investment in climate-resilient water supply systems.
- Kericho Water and Sanitation Sector Plans (drafted in alignment with NAWASIP): These plans guide project identification, budgeting, and donor coordination at the ward and sub-county levels.
- Kericho County Public Health and Sanitation By-laws (under review): Regulate pit latrine construction, faecal sludge disposal, and hygiene enforcement in institutions and markets.

1.1.4.2 Alignment with National and Global Commitments

Kericho County's water and sanitation efforts align with national and global frameworks, including:

a) Kenya Vision 2030: Prioritizes universal access to clean water and sanitation under the social pillar.
b) Sustainable Development Goal 6 (SDG 6): This goal calls for universal and equitable access to safe and affordable drinking water and adequate sanitation by 2030.
c) Ngor Declaration on Sanitation and Hygiene (2015): Commits to eliminating open defecation and mainstreaming sanitation in national and county planning.
d) Financing Locally-Led Climate Action (FLLoCA): Kericho is among the eligible counties under FLLoCA, which supports locally driven, climate-resilient water investments through performance-based grants.

1.1.4.3 Monitoring, Evaluation, and Data Management Frameworks

a) County-Level Monitoring and M&E Systems

- The Department of Water, Environment, and Natural Resources leads data collection through:
  - Performance tracking tools, aligned with WASREB KPIs;
  - Routine scheme audits, particularly for KEWASCO-managed infrastructure;
  - Community feedback through ward barazas and the Kericho County Feedback System.
- However, M&E systems face challenges including:
  - Fragmented reporting from community-run schemes;
  - Limited digital platforms for real-time data capture;
  - Inconsistent sex- and disability-disaggregated reporting in school and HCF WASH assessments.

b) National Platforms for WASH Data Integration

- WASREB Impact Reports: Rank KEWASCO on KPIs like Non-Revenue Water (NRW), water coverage, cost recovery, and compliance.
- CountyStat Platform (under development): Will integrate WASH performance indicators with CIDP monitoring frameworks.
- DLI Monitoring under K-WASH: The CWSSIP, along with an implementation roadmap, must be submitted and approved to unlock results-based financing (US$1M per county, under the World Bank).

1.1.4.4 Strategic Implications

Kericho County must strengthen:

- Legislative enforcement (especially for FSM, sanitation design, and land use controls);
- Harmonization of county WASH plans with NAWASIP and FLLoCA frameworks;
- Investment in M&E digitization, GIS mapping of infrastructure, and integrated reporting;
- Policy awareness and stakeholder dissemination, especially at the ward and community level.

These reforms will enhance accountability, improve targeting of WASH investments, and increase the county's eligibility for conditional grants and development partner financing.

1.1.5 Gender-Specific Water and Sanitation Needs

Water, sanitation, and hygiene (WASH) needs in Kericho County vary significantly across different gender and age groups, and addressing these disparities is crucial to achieving inclusive and equitable WASH outcomes. Service gaps, infrastructure design, and social norms around sanitation and hygiene disproportionately affect women, girls, and persons with disabilities (PWDs).

1.1.5.1 Burden of Water Collection and Access Gaps

In Kericho County, as in many parts of Kenya, women and girls bear the primary responsibility for collecting household water, particularly in rural and peri-urban areas without piped connections. According to the Kericho County WASH Baseline (2023), over 72% of households without water on premises rely on adult females for water collection, often requiring 30–60 minutes per trip in low-service zones such as Soliat, Tendeno, and Chepseon. This limits time for income-generating activities, education,

and caregiving. In some wards, especially in Soin/Sigowet and Kipkelion West, reliance on seasonal surface water and unprotected springs further compounds safety risks for women and girls, including exposure to harassment and violence during water collection from remote sources.

1.1.5.2 Menstrual Hygiene Management (MHM)

Menstrual hygiene remains a critical yet often overlooked need in schools and public spaces. The 2023 WASH Baseline Survey found that:

- Only 42% of primary and ECDE schools in the county had functional MHM-friendly latrines with soap, water, and privacy.
- 68% of schools lack covered bins for safe disposal of menstrual products.
- Adolescent girls in schools in Belgut, Kipkelion East, and Soin reported frequent absenteeism due to a lack of access to MHM materials and facilities.

The situation is mirrored in markets and transport hubs, where public toilets often lack adequate lighting, privacy, or disposal bins, making them inaccessible or unsafe for menstruating women and girls.

Table 1.6: Availability of MHM Facilities in Institutions (Kericho WASH Baseline 2023)

Facility Type	% incorporating MHM	% with Soap + Water	% with Disposal Bins
Primary Schools	42%	46%	32%
Health Facilities	61%	72%	48%
Public Market Toilets	35%	28%	19%

1.1.5.3 Safety and Design of Sanitation Facilities

Most public sanitation facilities in the county lack gender-segregated toilets, locks, or adequate lighting, especially in low-income settlements and small trading centers. Women and girls in Kapsoit, Londiani, and Brooke Market report avoiding public toilets due to concerns over safety and privacy, particularly after dark. Inadequate sanitation access in these areas has led to increased open defecation or delayed urination/defecation, resulting in health risks, including urinary tract infections (UTIs).

Although latrine ratios in schools have improved, most do not meet the MoE's standard of 1 toilet per 25 girls, particularly for ECDE and lower primary levels. Shared or insufficient latrines discourage school attendance, particularly during menstruation.

1.1.5.4 Needs of Persons with Disabilities and Elderly Women

PWDs, particularly girls and women with limited mobility, face significant physical barriers to accessing WASH services. The WASH Baseline revealed that less than 15% of surveyed schools and health centers had latrines accessible to persons with disabilities, with key gaps including:

- Lack of ramps or wide doors;
- Absence of grab rails;
- Latrines built on elevated platforms with no handrails.

Older women, especially widows living alone in rural areas, face added vulnerability due to poor access to water points and social exclusion from water management committees.

1.1.5.5 *Participation in WASH Governance*

Despite forming the majority of water users, women and girls are underrepresented in water, sanitation, and hygiene (WASH) decision-making bodies. In 2023, only 18% of community water committees in the county had women in leadership roles, and most did not include youth or persons with disabilities. Cultural barriers and meeting times that conflict with household duties hinder their participation.

The County Government, through the Department of Water and WEENRF, has recognized this gap and is working to strengthen gender mainstreaming policies. However, implementation remains weak without specific quotas or incentives in place.

Table 1.7: Gender Representation in Water Management Committees by Sub-County (2023)

Sub-County	% Female Members	% Female Leadership Roles
Ainamoi	34%	15%
Belgut	27%	12%
Kipkelion West	22%	9%
Soin/Sigowet	19%	6%
Bureti	32%	14%
Kipkelion East	21%	8%

1.1.5.6 *Key Considerations for Gender-Sensitive WASH Programming*

- Design and construct inclusive WASH infrastructure, including low-height taps, ramps, well-lit and lockable toilets with gender signage, and menstrual hygiene management (MHM) facilities.
- Enhance MHM supply chain and disposal systems, especially in schools and marketplaces.
- Increase representation of women and youth in WASH governance through policy enforcement and leadership training.
- Prioritize gender and disability-disaggregated data collection to inform project design and resource allocation.

1.2 Water in the County Economy

Water plays a foundational role in Kericho County's economic development, supporting key sectors such as tea production, dairy farming, horticulture, and a growing urban services industry. The globally recognized tea industry, alongside smallholder irrigation, water vending, and informal agro-processing ventures, depends on a reliable water supply to sustain productivity and generate livelihoods. Public institutions—including schools, healthcare facilities, and markets—also require stable access to water to maintain hygiene, safety, and service delivery, further underlining the sector's cross-cutting importance to social and economic systems.

Despite its endowment, the county faces mounting pressures from climate variability, infrastructural deficits, and demographic expansion. Frequent water shortages, informal water use practices, and poor sanitation coverage—especially in fast-growing centers like Londiani, Kipkelion, and Sondu—undermine economic resilience and exacerbate social vulnerability, particularly for women, children, and persons with disabilities. This section examines how access to water influences economic productivity, identifies priority growth zones, and illustrates the importance of closing existing water, sanitation, and hygiene (WASH) service gaps in achieving equitable and climate-resilient development. The analysis draws on insights from the Kericho Water Masterplan (2023), the 2023 WASH Baseline, the KEWASCO Strategic Plan, and countywide stakeholder consultations.

1.2.1 Contribution to Key Economic Sectors

1.2.1.1 Tea Production and Processing

Kericho County is internationally renowned as the heart of Kenya's tea industry. Its high altitude, fertile volcanic soils, and abundant rainfall make it ideal for tea growing, and tea estates dominate the landscape in Ainamoi, Belgut, and parts of Kipkelion West.

Major multinationals, such as Unilever Tea Kenya, James Finlay Kenya, and Williamson Tea, operate expansive estates in areas like Kapsoit, Brooke, and Kerenga, with each estate hosting its own processing factory. In addition, smallholder tea growers under the Kenya Tea Development Agency (KTDA) are served by over 13 KTDA-managed factories, including Tegat, Litein, Momul, Kapkatet, and Chelal Tea Factories, concentrated in Bureti, Soliat, and Londiani zones.

These processing plants consume significant volumes of clean water, especially during peak production seasons between April and June and October and December. Water is used in:

- Withering, steaming, and cooling during tea processing;
- Steam generation for dryers;
- Sanitation and cleaning of factory equipment;
- Estate housing and staff welfare services.

Any interruption in water supply directly affects production efficiency and export quality, with ripple effects on local incomes and employment. In 2022, periodic water shortages in Kipchimchim and Kapkatet forced some factories to operate below capacity or rely on emergency water trucking from KEWASCO.

1.2.1.2 Dairy, Livestock, and Horticulture

Outside of tea, dairy production is the second-largest water-dependent sector in Kericho. Livestock rearing is common in Kipkelion East, Soin/Sigowet, and Londiani, where smallholder farmers rely on rivers such as Kipchorian and Kamsenoi, or seasonal pans, for livestock watering.

Water is essential for:

- Zero-grazing units and livestock hygiene;
- Milk cooling and cleaning equipment;
- Dairy cooperative operations such as Soliat Dairy, Londiani Dairy Coop, and Kabianga Dairy Coop.

In horticulture, irrigated vegetable and fruit production is expanding in Cheboin, Chepsir, Kapkelek, and Tendeno. These areas produce tomatoes, cabbage, avocados, and bananas for urban markets.

Despite this potential, only 12% of irrigation-suitable land is currently under use due to poor infrastructure, erratic supply, and reliance on informal gravity-fed furrows vulnerable to climate shocks.

1.2.1.3 Industry, Manufacturing, and Services

Kericho's urban hubs—Kericho Town, Londiani, and Litein—support water-reliant industries such as:

- Tea packaging and processing plants;
- Water bottling firms like Kericho Gold;
- Food processing, hotels, and garages;

- Urban SMEs rely on KEWASCO for daily operations.

Challenges include inconsistent water supply in areas like Kipchimchim, Kapsoit, and Chepseon, high vendor reliance, and limited wastewater treatment infrastructure.

1.2.1.4 Public Institutions and Markets

Kericho's public facilities (schools, hospitals, markets) are key water consumers. Yet the 2023 WASH Baseline Survey reported widespread service gaps affecting hygiene, service quality, and health outcomes. The table below summarizes cross-sectoral WASH gaps and their economic consequences:

Table 1.8: Estimated Opportunity Costs of Water Gaps across Key Sectors in Kericho County

Sector	Current WASH Gap	Estimated Impact	Source
Tea Industry	Unreliable water for 30% of factories during dry seasons	Factory downtime, reduced quality exports	Kericho Masterplan, 2018
Dairy & Livestock	Inadequate dry-season supply in Kipkelion, Soliat	Milk yield decline, livestock losses	WASH Baseline, 2023
Horticulture	Low irrigation coverage; vulnerable to source depletion	Yield losses, reduced income in horticulture belts	WASH Baseline & Farmer FGDs, 2023
Health Institutions	47% lack basic water services	Service disruption, high infection risk	WASH Baseline, 2023
Urban SMEs	60% depend on boreholes or vendors	Increased cost, business delays	KEWASCO Strategic Plan, 2020
Schools	>50% have irregular water supply	Absenteeism and poor hygiene outcomes	WASH Baseline, 2023

In addition to economic sectors, institutional facilities present high daily water demand but suffer major coverage gaps, as detailed below:

Table 1.9: Estimated Institutional Water Demand (2023–2030)

Facility Type	Average Demand (Litres/ day)	Estimated Coverage Gap (%)	Critical Areas Affected	Source
Primary Schools	5,000	48%	Litein, Cheborge, Kapsoit	WASH Baseline, 2023
Secondary Schools	8,000	41%	Kipkelion, Londiani	WASH Baseline, 2023
Health Centers (Level 2–4)	10,000	47%	Londiani Hospital, Sigowet HC, Kapkatet	WASH Baseline, 2023
Markets	7,000	55%	Sondu, Brooke, Kapkatet	Market Sanitation Survey, 2022
ECDE Centers	3,000	52%	All sub-counties	WASH Baseline, 2023

1.2.2 Tourism and Environmental Services

Kericho County's natural beauty and ecological diversity provide a strong foundation for eco-tourism, agri-tourism, and cultural tourism, which have the potential to expand significantly as part of the country's economic diversification agenda. The sector is heavily dependent on clean water access, safe sanitation, and preserved ecosystems, which together form the core offering of most tourism attractions in the region.

1.2.2.1 Key Water-Dependent Tourism Assets

a) Tea Estate Tourism and Agri-Experiences

Kericho is internationally recognized for its scenic tea estates, particularly in Brooke, Kapsoit, Kerenga, and Londiani. Tourists, both local and international, frequent estates such as Finlay's Tea Gardens, Unilever Tea Trails, and Chagaik Tea Estate Viewpoint, where water is required for:

- Hospitality facilities (lodges, guesthouses, cafes);
- Visitor washrooms and sanitation services;
- Landscape aesthetics (irrigation, maintenance of tea trails);
- Day-to-day services for in-house workers and staff.

Inadequate or intermittent water supply—common in Kapsoit and Kapkugerwet during dry seasons—affects guest experience and compromises safety and hygiene standards.

b) Natural Attractions and Forest Reserves

Kericho's tourism appeal is also supported by natural reserves and landscapes that rely on intact water systems:

- Kakamega and Mau Forest fringes, with birding and hiking trails;
- Chebulu and Kaptaberru waterfalls, attracting day visitors from Kericho and Kisumu;
- Kipkurere Forest, home to unique biodiversity and sacred cultural sites;
- Riverine systems around Kabianga and Soin are known for camping and traditional fishing.

These ecotourism assets are increasingly threatened by upstream catchment degradation, poor sanitation around picnic areas, and solid waste pollution in key sites such as Cheboin Falls and Kipsitet.

c) Cultural and Heritage Sites

Cultural events and traditional practices—especially among the Kipsigis community—draw visitors to areas like Kapkatet, where ceremonial and spiritual functions are often water-intensive. The need for clean, gender-responsive sanitation facilities is especially pronounced in these settings, yet few facilities meet the required public health standards.

1.2.2.2 Role of Water in Environmental Stewardship and Resilience

Water also plays a central role in supporting ecosystem services that underwrite both tourism and long-term environmental stability:

- Forested catchments such as Tinderet and Mau East serve as major groundwater recharge zones, essential for sustaining both human supply and wildlife.
- Streams feeding into rivers like Chemosit, Timbilil, and Itare support downstream wetlands and riparian biodiversity hotspots, key for birding tourism and ecological balance.
- Ecosystem degradation—especially along riparian zones in Soin/Sigowet—has increased runoff and sedimentation, directly affecting water clarity and flow volumes in popular sites.

These areas are also climate buffers, absorbing carbon and reducing the impact of floods and droughts, yet they are increasingly stressed by illegal logging, livestock encroachment, and informal settlement expansion.

1.2.2.3 Current Gaps and Risks

The table below highlights the current gaps and risks

Table 1.10: Challenge and Impact on Tourism and Environment

Challenge	Impact on Tourism and Environment
Unregulated wastewater disposal in tourist zones	Pollution of rivers and springs; tourist dissatisfaction
Limited public sanitation at attractions	Health risks; lower visitor comfort in places like Chagaik, Brooke
Inadequate water supply in eco-lodges	Interruption of services during peak season
Deforestation and catchment degradation	Reduced flow to rivers, dried-up waterfalls, and altered aesthetics
No dedicated water management for tourist centers	Fragmented oversight and uncoordinated investment

1.2.2.4 Strategic Opportunities

- Integrate water access improvements, such as piped systems, sanitation blocks, and climate-resilient design at natural attractions, into tourism investment plans.
- Develop Public-Private Partnerships (PPPs) with tea estates and lodges for shared water source protection and sanitation infrastructure, e.g., along the Brooke–Kipchimchim corridor.
- Launch eco-WASH demonstration sites featuring inclusive toilets, solar-powered boreholes, and rainwater harvesting at key visitor nodes, such as Kapkugerwet Viewpoint and Soliat Rock.
- Establish water-smart tourism certification, promoting responsible water use and investment in local sanitation among hospitality providers.

1.2.3 Public Institutions and Social Services

Public institutions in Kericho County, including schools, healthcare facilities, ECDE centers, and market centers, are critical service delivery points and major users of water and sanitation services. These institutions not only require reliable water and sanitation for functionality and hygiene, but also serve as community influencers in promoting positive WASH behaviors. Yet, Kericho's institutions continue to face significant infrastructure and service deficits, undermining service quality and public health. Addressing WASH gaps in these facilities is crucial for enhancing learning outcomes, reducing disease burden, and improving the quality of life, particularly for vulnerable groups such as children, patients, expectant mothers, and the elderly.

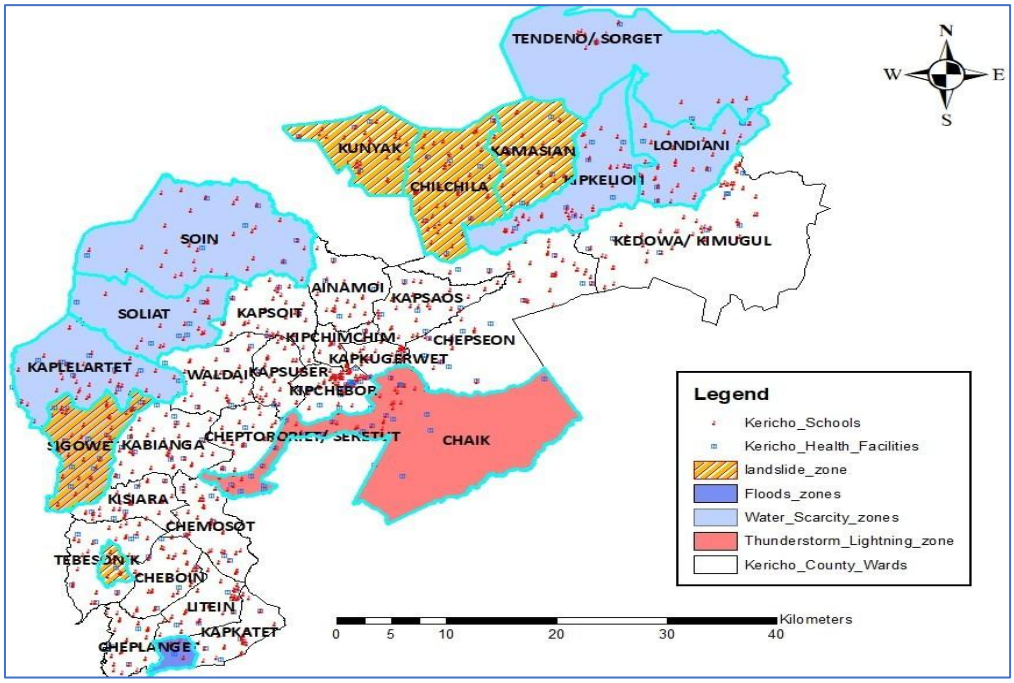

Figure 1.7: Schools and Health Facilities Distribution within the County in relation to the risk vulnerability they face

1.2.3.1 Schools and ECDE Centers

Kericho County hosts over 600 public primary and secondary schools, as well as more than 400 Early Childhood Development Education (ECDE) centers. According to the 2023 WASH Baseline Assessment:

- Only 52% of schools had access to a reliable, year-round water supply.
- Fewer than 40% had gender-segregated toilets that meet Ministry of Education (MoE) standards (1 toilet per 25 girls; 1 per 30 boys).
- MHM-friendly facilities (i.e., with water, privacy, disposal bins) were present in only 42% of schools, mainly in Ainamoi and Belgut.
- Children in schools like Chepseon, Litein, and Soliat Primary face long breaks between handwashing, inadequate drinking water, and latrine-sharing.

These gaps contribute to:

- Absenteeism, especially among adolescent girls during menstruation;
- Poor hygiene practices and associated outbreaks (e.g., diarrhea, worm infections);
- A learning environment that undermines the dignity and safety of pupils.

1.2.3.2 Healthcare Facilities

Kericho has approximately 140 public healthcare facilities, including dispensaries, health centers, and three Level 4 hospitals (Kapkatet, Sigowet, and Londiani). Water is essential for:

- Patient care, maternal delivery, sterilization, handwashing;
- Cleaning, infection prevention, and waste disposal;
- Laboratory work and safe food preparation.

However, the WASH Baseline shows that:

- Only 53% of facilities had a basic water supply (as per WHO/UNICEF JMP standards);
- About 47% lacked proper waste disposal systems;
- Latrines for patients and staff often failed to meet minimum design standards, especially in Kipkelion East, Soliat, and remote wards of Bureti.

Facilities such as Kiptugumo Dispensary, Kamasian Health Centre, and Cheborge Dispensary reported frequent water shortages, forcing them to purchase water from vendors, use unimproved rainwater harvesting systems, or refer patients elsewhere during emergencies.

1.2.3.3 Markets and Trading Centers

Kericho's formal market hubs—such as Sondu, Kapkatet, Brooke, Kipkelion, Chepseon, and Londiani—serve thousands of traders and consumers daily. These markets:

- Lack functional, well-maintained public toilets (many in poor condition or closed);
- Face solid waste management issues, with garbage dumped into storm drains and near water points;
- Often lack designated water points or storage tanks, forcing vendors to buy water or go without.

Markets like Kapsoit and Kamasian lack sanitation blocks entirely, while Brooke Market has a latrine with no water for flushing or handwashing.

These shortfalls pose risks of cholera outbreaks, food contamination, and reputational loss, especially during regional or national events.

1.2.3.4 Institutional Demand Summary

The following table summarizes the estimated daily water demand per institution, highlighting coverage gaps and high-risk areas:

Table 1.11: Estimated Daily Water Demand in Public Institutions in Kericho County (2023–2030)

Facility Type	Av. Demand (m^3/day)	Estimated Coverage Gap (%)	Critical Areas Affected	Source
Primary Schools	5	48%	Litein, Cheborge, Kapsoit	WASH Baseline, 2023
Secondary Schools	8	41%	Kipkelion, Londiani	WASH Baseline, 2023
Health Centers (Level 2–4)	10	47%	Londiani Hospital, Sigowet HC, Kapkatet	WASH Baseline, 2023
Markets	7	55%	Sondu, Brooke, Kapkatet	Market Sanitation Survey, 2022
ECDE Centers	3	52%	All sub-counties	WASH Baseline, 2023

1.2.3.5 Strategic Implications and Opportunities

To improve WASH in public institutions, Kericho County must:

- Prioritize WASH-in-schools programming, including MHM infrastructure and teacher training;
- Allocate dedicated budgets for water connectivity and storage tanks in health and learning institutions;

- Integrate institutional WASH audits into performance contracts for school and facility management;
- Partner with NGOs and corporates for sanitation block construction in markets;
- Ensure climate-resilient design of WASH systems in all new schools and hospital facilities.

These interventions enhance institutional effectiveness and reinforce behavior change in communities, supporting the broader goals of public health, education, gender equity, and climate resilience.

1.2.4 Risks and Opportunities Related to Water Resource Availability and Climate Variability

Climate variability, environmental degradation, and emerging water stress are increasingly threatening Kericho County's water security and economic stability. Despite being relatively well-endowed in surface and groundwater resources, the county faces rising seasonal imbalances, extreme weather events, and land-use pressures that challenge the reliability and sustainability of water supply and sanitation services.

To guide spatial targeting of climate-resilient WASH interventions, a climate risk-population overlay was developed to identify wards where high population density coincides with elevated exposure to climate hazards such as floods, prolonged droughts, and erosion.

The following diagram maps this intersection, highlighting vulnerable hotspots such as Brooke, Kapkatet, Soliat, and Tendeno, where service demand is rising amidst increasing environmental risk. These zones should be prioritized for adaptive water supply systems, sanitation infrastructure upgrades, and nature-based climate resilience measures under programs such as FLLoCA and the NAWASIP Results-Based Financing (RBF) framework.

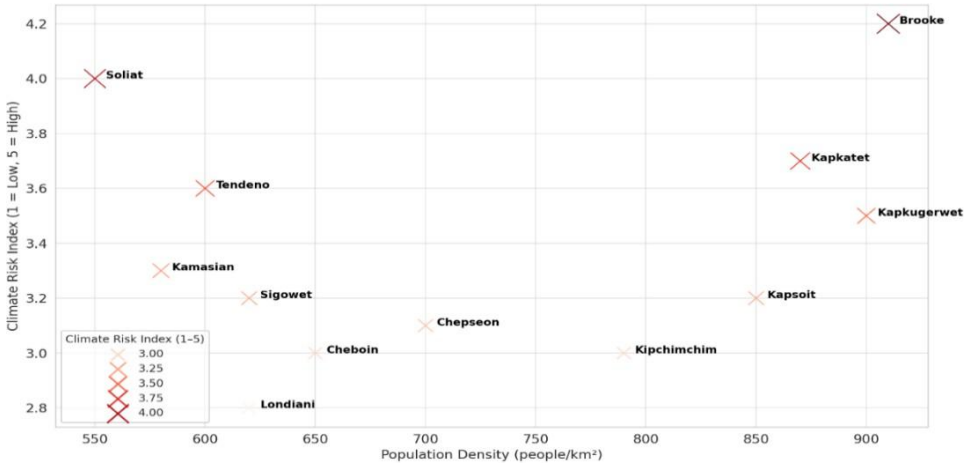

Figure 1.8: Mapping the Population Hotspots vs Climate Risk Exposure by Ward (2025)

This section identifies the key risks affecting water resource availability, maps out vulnerable zones, and proposes strategic opportunities to enhance adaptive capacity, water resilience, and long-term service continuity across economic sectors.

1.2.4.1 Water Source vs Climate Risk Matrix

The table below highlights the major water sources in Kericho and their alignment with climate-induced risks, including drought, flooding, and land degradation.

Table 1.12: Water Source vs. Climate Risk Matrix in Kericho County

Water Source	Primary Location	Climate Risks	Vulnerability Level	Severity (Impact)	Risk Frequency
Springs (e.g., Tendeno)	Bureti, Kipkelion West	Seasonal drying, sedimentation	High	Medium to High	Annual
Rivers (Chemosit, Itare)	Belgut, Ainamoi, Soin	Flash floods, erosion, and pollution	High	High	Frequent
Boreholes	Kipkelion East, Soin/Sigowet	Low recharge rates during droughts	Medium	Medium	Increasing
Gravity-fed systems	Kipkelion, Londiani highlands	Pipe bursts from landslides/flooding	Medium	High	Moderate
Rainwater harvesting	Schools, HCFs countywide	Irregular rainfall, inadequate storage	High	Low–Medium	Highly variable

Source: Kericho Water Masterplan 2018; WASH Baseline 2023; Stakeholder Validation Forums

The matrix above illustrates that areas reliant on springs and shallow wells are disproportionately exposed to climate-related stress such as seasonal drying, contamination, and flood disruption. This analysis informs prioritization of spring protection, borehole solarization, and rainwater harvesting interventions under the CWSSIP investment plan.

1.2.4.2 Gender-Specific Climate-Induced Vulnerabilities

Climate variability disproportionately affects women and girls, particularly in rural and peri-urban settings. Key gender-related challenges include:

- Increased burden of water collection in areas where springs dry up seasonally (e.g., Kipkelion East, Cheborge, and Tendeno), leading to reduced time for economic and caregiving responsibilities.
- Girls are missing school during water scarcity, especially when rainwater harvesting tanks in ECDEs and schools run dry or become unsafe for use.
- Safety risks for women and adolescent girls walking long distances or accessing unprotected sources, particularly during early morning or late evening hours.
- Limited voice in climate adaptation planning, despite women's critical role in managing household water and sanitation.

1.2.4.3 Economic Risks from Climate Variability

The economic cost of climate-related water insecurity is growing. Key risks include:

- Reduced tea and dairy productivity during prolonged dry spells, with tea estates in Kerenga and Kapsoit reporting lower processing volumes due to limited water availability.
- Downtime in industries and water-intensive services (e.g., car washes, food vendors) due to water rationing or flood damage to access roads and infrastructure.
- Damage to water and sanitation infrastructure during flooding, particularly for rural schemes and sanitation blocks in schools (e.g., collapse of pit latrines in Soliat and Kapkatet).
- Rural migration or overburdening of urban services, as climate stress displaces livelihoods, increases pressure on KEWASCO's limited urban supply.

1.2.4.4 *Priority Adaptation and Mitigation Measures*

To address climate-related WASH challenges, Kericho County should pursue a phased mix of structural and non-structural interventions. The table below outlines priority actions ranked by impact and feasibility.

Table 1.13: Sector-Specific Climate Adaptation Measures for Water Security

Measure	Sector/Area	Priority Level	Cost-Benefit Rationale
Spring protection and intake improvement	Kipkelion, Bureti, Belgut	High	Extends source life, improves quality, and is low-cost
Solar-powered boreholes and booster pumps	Kipkelion East, Soin	High	Reduces O&M cost, climate-resilient, ideal for off-grid areas
Rainwater harvesting with storage upgrade (10,000L+)	Schools, ECDEs, and markets	High	Enhances resilience, supports MHM, and food safety
Riverbank stabilization and reforestation	Chemosit, Timbilil, Itare zones	Medium	Reduces flooding and sedimentation, protects the downstream supply
Inclusive WASH design in planning and budgeting	County-wide (especially HCFs)	High	Protects vulnerable groups, improves WASH uptake
Climate-smart irrigation systems (drip, lined furrows)	Horticulture areas	Medium	Efficient water use increases yield
Early warning and community training on drought risk	Rural wards (Soliat, Tendeno)	Medium	Builds preparedness, improves decision-making

1.2.4.5 *Strategic Opportunities and Entry Points*

Kericho County can leverage national and global climate finance and resilience programs, including:

- FLLoCA (Financing Locally-Led Climate Action): Targeting ward-level projects with high adaptation impact.
- NAWASIP Results-Based Disbursements (RBD): Linked to climate-proof infrastructure implementation.
- Partnerships with WSTF, LVSWWDA, and the private sector for solar WASH projects and nature-based solutions.
- Ward Climate Resilience Planning Units (under FLLoCA): These units can be mobilized to integrate water and sanitation in local resilience plans.

In summary, while Kericho County has a strong natural endowment, climate variability and water stress threaten the sustainability of its socio-economic gains. Prioritized investment in climate-resilient WASH infrastructure, improved catchment management, and inclusive governance models will be essential for safeguarding water security and protecting vulnerable livelihoods, especially in the face of rising climate uncertainty.

1.2.5 Overview of Planned and Ongoing Interventions

Kericho County is actively implementing and planning a series of water and sanitation interventions aimed at unlocking the county's economic potential, mitigating climate risks, and enhancing inclusive access to WASH services. These interventions are supported by both public and private actors and are integrated into county economic development objectives under the CIDP 2023–2027, Kericho Water Masterplan, and the NAWASIP framework. *These planned investments are consistent with the priority projects outlined in the CWSSIP PEF submitted under the K-WASH Program.* The CWSSIP provides full costing and

implementation sequencing for these initiatives across water, sanitation, hygiene, and climate-resilient infrastructure components.

1.2.5.1 Ongoing and Pipeline Water Sector Investments

The table below highlights the key ongoing projects within the county:

Table 1.14: The Ongoing and Pipeline Water Sector Investments

Project/Intervention	Implementing Agency	Scope and Location	Objective	Status
Kimugu Water Supply Project	LVSWWDA, KEWASCO	Bulk water production for Kericho Town and environs	Increase urban water coverage and pressure stabilization	Ongoing (80% complete)
Kusumek Water Supply and Mini Hydro Scheme	LVSWWDA, County Govt.	Multi-purpose water supply and energy generation (Londiani, Soliat)	Diversify supply and promote the energy-water nexus	Feasibility completed
Community Gravity Water Schemes	Dept. of Water, NGOs (World Vision, Plan Int'l)	Kipkelion West, Bureti, Sigowet	Expand rural household and livestock access	Active (17 wards)
Solarization of Boreholes	Dept. of Water & WSTF	Rural boreholes in Kipkelion East and Soin/Sigowet	Reduce O&M costs and improve reliability	10 sites complete
WASH in Schools Program	Dept of Education, UNICEF	Upgrades in Litein, Kapkatet, Kipchimchim	MHM, handwashing, inclusive toilets	83 schools reached
FSM Pilot & Sanitation Entrepreneurship Hub	KEWASCO, KIWASH, County Govt.	Kapsoit, Cheboin, Brooke	Safe sludge management, youth jobs, and sanitation marketing	Concept stage

1.2.5.2 Climate-Resilient Water-Economy Interventions

Several projects are being aligned with climate resilience frameworks, including under the FLLoCA program and NAWASIP Results-Based Financing, with emphasis on green infrastructure and targeting vulnerable populations.

Table 1.15: Projects being aligned with climate resilience frameworks

Intervention Area	Intervention Description	Wards/Hotspots	Potential Financiers
Spring protection and catchment fencing	Nature-based solutions to reduce turbidity and sustain flow	Tendeno, Cheborge, Kabianga	WSTF, FLLoCA, CGoK
Ward Climate-Resilient WASH Investments	FLLoCA-financed projects for rainwater harvesting, elevated tanks	Soin, Kamasian, Tendeno	World Bank (FLLoCA), Country Climate Unit
Solar-powered water pumping schemes	Integration of solar pumps in off-grid locations	Kipkelion East, Soin/Sigowet	KIWASH, WSTF, County Development Fund
Expansion of drip irrigation systems	Support to tea nurseries, horticulture cooperatives	Brooke, Litein, Kipkelion West	Agriculture and Water Departments (Joint)
Reforestation and river buffer restoration	Ecosystem protection for Chemosit, Timbilil, Itare	Belgut, Ainamoi	NEMA, LVSWWDA, County Green Economy Unit

1.2.5.3 Opportunities for Cross-Sectoral Integration and Partnerships

In line with NAWASIP and CIDP III, Kericho County is identifying partnerships and co-financing opportunities to strengthen the water-economy nexus through:

a) Public-Private Partnerships (PPP): Proposed for urban faecal sludge transport, maintenance of solar systems, and vending kiosks in underserved trading centers.
b) Water-Smart Agro-Industrial Zones: Water supply integrated into planning for agro-processing expansion in Londiani and Kipkelion.
c) Institution-WASH Convergence Projects: Bundling WASH with school feeding programs, health facility upgrades, and market rehabilitation.
d) Gender-Responsive Climate Projects: Women-led groups in Kipchimchim and Kamasian are being engaged in sanitation entrepreneurship and handwashing soap manufacturing.

1.2.5.4 Summary of Key Planned WASH-Economic Boosting Projects

Table 1.16: Summary of Key Projects Supporting Water-Driven Economic Development

Project/Program	Primary Outcome	Economic Sector Link	Replicability Potential
Kimugu Water Supply Project	Reliable water for Kericho Town	Industry, SMEs, public institutions	High (Urban towns in the Rift region)
Solarization of Rural Boreholes	Cost-efficient rural supply	Livestock, domestic use	High (off-grid and arid zones)
WASH in Schools and Markets	Hygiene and public sanitation improvements	Education, retail, food services	High (national scale)
Kusumek Mini Hydro-Water Project	Energy-water co-benefits for Londiani	Green economy, small industry	Medium (selective geography)
FSM and Sanitation Hub	Entrepreneurship and service diversification	Youth employment, waste economy	High (urbanizing counties)

Kericho County has made significant strides in leveraging WASH as a driver of socio-economic development and resilience. The integration of WASH interventions within broader economic and climate frameworks—including CIDP III, FLLoCA, and NAWASIP—offers a pathway for sustainable, inclusive, and climate-proofed development. The County will continue to explore replicable, scalable solutions while targeting investments where economic, gender, and environmental returns are highest.

1.2.6 Informal Sector, Livelihoods and Water-Based Enterprises

Kericho County's informal sector plays a vital role in income generation, employment creation, and the provision of essential services, especially in peri-urban and rural areas. Many of these livelihood activities are heavily water-dependent, either directly (through water use) or indirectly (through sanitation, hygiene, and infrastructure). Water availability, affordability, and quality, therefore, significantly influence the productivity and resilience of thousands of informal workers and micro-enterprises across the country.

1.2.6.1 Water Vending and Small-Scale Distribution

In underserved areas like Kipkelion East, Kapsoit, Chepseon, Soliat, and the outskirts of Kericho Town, a significant number of households depend on informal water vendors. These vendors:

a) Operate using handcarts, donkeys, and small trucks, fetching water from nearby springs, rivers, or standpipes.
b) Sell water at rates ranging from KES 5–20 per 20-litre jerrican, depending on scarcity and distance from the source.
c) They often face queueing delays, source rationing, and water quality concerns, especially during dry months (January–March).

The 2023 WASH Baseline Survey estimates that 20–30% of urban and peri-urban residents rely on informal water vendors, especially in settlements such as Kipchimchim, Kapkugerwet, and Soliat Trading Centre. This translates into a vibrant yet vulnerable water economy, especially for young people and women, who are disproportionately represented in this space.

1.2.6.2 Car Washes and Mechanic Yards

The proliferation of informal car wash businesses in Kericho's urban centers—particularly in Kericho Town CBD, Brooke, Litein, and Sondu—represents another key water-reliant livelihood activity. These businesses:

a) Use between 3–6 m^3 of water daily, depending on the number of vehicles served.
b) Often draw water from nearby rivers (e.g., Chemosit, Kipchorian) or municipal hydrants (where permitted).
c) Poor wastewater disposal systems rarely exist, leading to runoff pollution into roadside drains and nearby water bodies.

Increased county regulation has formalized a few car washes (e.g., Kapkatet Junction, Londiani Main Road), but most still operate informally, creating gaps in enforcement, revenue collection, and environmental safeguards.

1.2.6.3 Food Vendors and Informal Eateries

Hundreds of informal food vendors, butcheries, tea stalls, and milk sellers operate within market centers, matatu stages, and street corridors in places like Kapkatet, Brooke, Chepseon, Kamasian, and Kericho Open Air Market. These micro-entrepreneurs require daily access to water for:

- Cooking and beverage preparation;
- Cleaning utensils and serving spaces;
- Handwashing and hygiene maintenance.

When the municipal water supply is unreliable, most vendors purchase water from local kiosks or vendors, increasing operational costs and occasionally forcing temporary shutdowns during shortages. This affects not only livelihoods but also public health, due to food contamination risks.

1.2.6.4 Livelihoods Linked to Sanitation

The sanitation economy in Kericho is gradually growing, especially in fast-expanding towns. This includes:

- Pit latrine construction and emptying services (common in Belgut, Kipkelion West, and Soin/Sigowet);
- Manual emptiers and sludge transporters, operating informally in areas such as Kapsoit and Brooke, often without protective equipment or access to regulated disposal sites;
- Sanitation artisans and masons, who construct VIPs, twin pits, and improved household toilets;
- Small-scale soap makers and hygiene product sellers, particularly in women-led groups in Londiani and Soliat.

These water—and sanitation-linked jobs offer employment to youth and women. Yet, they suffer from a lack of safety training, limited financing, and inadequate integration into county-led FSM systems.

1.2.6.5 Community Managed Water Schemes and Kiosk Operations

In rural areas and low-income neighborhoods, community-managed water points and kiosks offer both access to water and opportunities for livelihoods. These include:

- Ward-based water user associations (WUAs) managing springs and gravity systems;
- Water kiosk operators in markets like Tendeno, Sigowet, and Kipchimchim;
- Revenue collectors and maintenance workers for community projects.

These schemes often generate employment for 3–5 people per site, but they face challenges such as non-payment, vandalism, poor metering, and limited technical support.

Table 1.17: Examples of Water-Dependent Informal Livelihoods in Kericho County

Livelihood Type	Water Use/Role	Common Locations	Key Constraints
Water vending	Sells water in jerricans (5–20 KES per 20L)	Kipkelion East, Kapsoit, Kipchimchim	Source unreliability, pricing fluctuations
Informal car washes	3–6 m³/day water usage	Brooke, Kapkatet, Litein, Sondu	Lack of drainage, water pollution, irregular licensing
Food kiosks & tea vendors	Water for cooking and hygiene	Kericho Town, Londiani, Chepseon	Supply disruptions, hygiene risks
Pit latrine construction	Builds/maintains household sanitation	Bureti, Soin/Sigowet, Kipkelion West	Seasonal demand, poor supervision
Sludge removal/manual emptiers	Cleans full latrines	Kapsoit, Sondu, Brooke	Unsafe methods, lack of a formal FSM chain
Community water kiosks	Sells piped or spring water	Tendeno, Kipchimchim, Sigowet	Low tariffs, vandalism, and poor O&M

1.2.6.6 Strategic Considerations and Opportunities

To harness and formalize water-linked informal livelihoods, the county should:

- Support licensing and training for informal water and sanitation actors;
- Expand water access infrastructure in informal settlements and trading centers;
- Promote inclusive financing mechanisms (grants, SACCOs, youth and women funds) for WASH micro-enterprises;
- Develop an FSM micro-entrepreneurship program, training youth in safe sludge handling, transport, and treatment;
- Establish WASH entrepreneurship hubs to foster innovation in water reuse, rainwater harvesting, and hygiene supply chains.

These interventions will strengthen Kericho's water economy and contribute to youth employment, gender empowerment, and the delivery of safe services across the county.

1.2.7 Summary of WASH-Related Economic Opportunities and Constraints

The analysis of Kericho County's economic landscape reveals that water, sanitation, and hygiene (WASH) services are not only foundational to health and human dignity but also serve as critical enablers of local productivity, enterprise growth, and economic resilience. From tea processing to informal vending, from dairy production to institutional functionality, nearly every sector and livelihood stream is affected by the availability, quality, affordability, and reliability of WASH services. Addressing existing gaps and leveraging the untapped potential in the water economy will therefore unlock a wide range of socio-economic benefits across the country. The prioritization of WASH investments aligns directly with SDG 6

commitments, Kericho CIDP Pillar 4 (Health and Sanitation), and K-WASH Disbursement Linked Indicators (DLIs). These include results-based targets for expanding coverage, reducing non-revenue water (NRW), and strengthening institutional performance through digital transformation and monitoring.

1.2.7.1 Key Opportunities for Economic Acceleration through WASH Investment

The table below highlights some of the key Opportunities for Economic Acceleration through WASH Investment that shall be considered:

Table 1.18: Opportunities for Economic Acceleration through WASH Investment

Opportunity Area	Strategic Benefit
Tea and agro-industrial WASH infrastructure	Enhances efficiency, export quality, and job stability in Kenya's flagship tea region
Expansion of climate-resilient irrigation systems	Increases productivity and food security in horticulture, dairy, and smallholder farming
Institutional WASH upgrades (schools, HCFs)	Reduces absenteeism, improves public health, and boosts social trust in government services
Growth of informal water and sanitation enterprises	Creates jobs and stimulates youth- and women-led microenterprises through vending, car washes, FSM, etc.
Eco-tourism and green economy integration	Leverages clean water and environmental assets to promote sustainable visitor-based income
Public-Private Partnerships (PPPs) in water supply	Mobilizes financing for service expansion, especially in growing towns and commercial centers
WASH innovations and social entrepreneurship	Sparks local solutions in water purification, handwashing technology, and menstrual hygiene supply chains

1.2.7.2 Persistent Constraints Limiting WASH-Driven Economic Impact

The table below captures some of the Constraints Limiting WASH-driven economic Impact:

Table 1.19: Constraints Limiting WASH-Driven Economic Impact

Constraint	Impact on Economic Development
Unreliable and intermittent water supply	Interrupts production, affects hospital services, increases household time, and imposes cost burdens.
Low sewerage and FSM coverage	Leads to environmental degradation, disease outbreaks, and informal, unsafe sludge management
High Non-Revenue Water (NRW) levels	Reduces utility performance, limits service extension, and deters private investment
Weak enforcement of sanitation bylaws	Allows pollution hotspots in markets, car wash areas, and informal settlements to persist
Limited WASH investment in informal zones	Marginalizes low-income communities, women, and youth from productive opportunities
Under-funded school and health WASH programs	Undermines service delivery, especially in ECDEs, maternity wards, and food service institutions
Fragmented institutional coordination	Leads to overlap, inefficiency, and missed opportunities in water sector programming

1.2.7.3 Strategic Entry Points for WASH-Inclusive Economic Planning

To realize its WASH-driven economic potential, Kericho County must integrate WASH priorities across sectoral development plans, with particular emphasis on:

- Spatial targeting of investment in economic corridors and underserved wards;
- Mainstreaming WASH in agriculture, health, education, tourism, and trade budgets;
- Catalyzing blended financing to support the commercial viability of sector entrepreneurs;
- Supporting livelihoods linked to WASH infrastructure development;
- Positioning WASH as a cross-cutting enabler in the implementation of the CIDP, NAWASIP priorities, and the Bottom-Up Economic Transformation Agenda.

CHAPTER 2: WATER, SANITATION, AND HYGIENE SERVICES COVERAGE STATUS

2.1 County Water Resources Endowment

Kericho County is relatively water-endowed, benefiting from high rainfall, an extensive network of rivers and streams, numerous springs, and moderate groundwater potential. These resources support domestic supply, agriculture, industry, and ecosystem services. However, uneven spatial distribution, seasonal variability, land-use pressures, and lack of investment in source protection continue to affect water reliability across sub-counties. The County relies on diverse water sources, including rivers, springs, boreholes, and rainwater harvesting systems. These sources vary in reliability, yield, and vulnerability to seasonal changes.

Under the Constitution of Kenya, 2010, county governments have been constitutionally devolved the responsibility for managing sustainable water resources and providing services. This mandate is further guided by national frameworks such as the National Water Master Plan 2030 (NWMP 2030) and the Water Act 2016, which collectively establish the legal and institutional structures for managing and regulating water resources across different levels of government.

Under the Water Act 2016, County Governments are specifically tasked with the management and protection of catchment areas, while the Water Resources Authority (WRA) assumes the regulatory role in overseeing the use and allocation of water resources in the interests of both national and county governments. This division of roles supports an integrated and coordinated approach to water governance.

The demand for water resources—across domestic, agricultural, livestock, industrial, hydropower, tourism, and ecological functions—is steadily increasing, even as water quality continues to decline. This deterioration of quality reduces the volume of usable water, heightening the urgency for coordinated planning and sustainable management of available resources. The County faces notable water-related challenges, including the degradation of critical catchment areas such as the Mau Forest, which holds both regional and national significance. Urban areas within the County are already experiencing water shortages and rationing due to these pressures. Kenya, classified as a water-scarce country, had an estimated water availability of 647 m^3 per capita as of the 1992 National Water Master Plan—significantly below the global benchmark of 1,000 m^3 per capita.

In response to these challenges and the worsening impacts of climate change—including increased droughts, floods, and erratic rainfall—the national government has adopted several strategic policy frameworks. These include the National Climate Change Response Strategy, the National Flood Management Plan, NWMP 2030, and Vision 2030, all of which aim to promote equitable and sustainable access to safe water for all Kenyans. Aligned with these national priorities, the County Government has developed its own Water Master Plan to guide the regulation, development, equitable sharing, and sustainable management of water resources. This Plan incorporates both structural measures, such as the development of strategic water storage infrastructure, and non-structural measures, including catchment conservation and watershed protection.

Furthermore, in line with the National Water Resources Management Strategy (NWRMS), the County is implementing transparent and accountable mechanisms to assess, maintain, develop, and manage its renewable freshwater resources. This integrated water resources management (IWRM) approach will also

emphasize stakeholder participation and multi-sectoral coordination to ensure the long-term sustainability of the County's water resources.

2.2 Surface Water Resources

Kericho County lies within the Lake Victoria South Basin, comprising several critical sub-basins that drain the Mau Forest complex. The county's surface water network is highly dependent on orographic rainfall and is dominated by rivers originating from the western and central escarpment. These systems play an essential role in providing a domestic water supply, irrigation for tea estates, industrial use, and ecosystem services. Kericho County lies in Lake Victoria South Basin Area (LVSBA), which is located in the south-western part of the country and borders Lake Victoria North Basin Area (LVNBA) in the North, Rift Valley Basin Area (RVBA) in the East, Tanzania in the south, and Lake Victoria in the west. The County partly hosts one of Kenya's five major water towers, the Mau Forest Complex (Northern Tinderet (1,135ha), Tinderet (23,095ha), Londiani (8,630ha), and South Western Mau (11,176ha), occupying the North Western and Western part of the County's landmass. The protected area constitutes 16.98% of the County's total area[2].

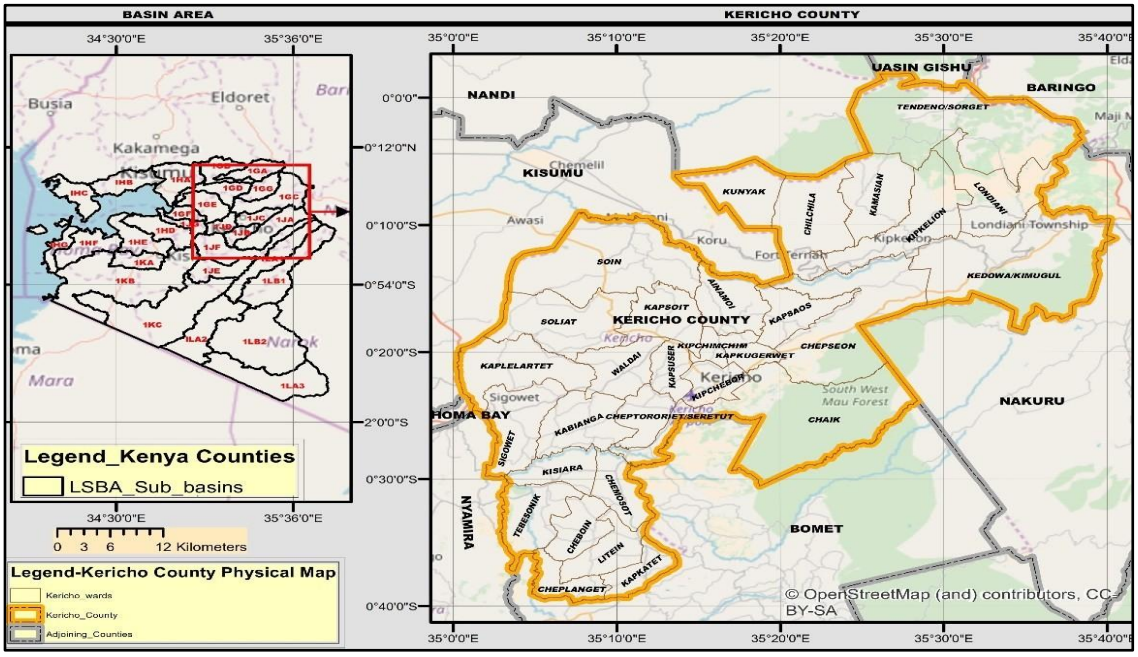

Figure 2.1: Kericho County location in the LVSBA Basin area

2.2.1 Hydrological Sub-Basin Overview and River Gauging Stations

The assessment of surface water endowment in Kericho County is structured around the primary hydrological sub-basins defined by the Water Resources Authority (WRA), which include the Nyando and Sondu sub-basins. These sub-basins serve as hydrological planning units and are critical for guiding both regulatory oversight and investment prioritization. The table below presents the estimated mean annual discharge volumes for each sub-basin under both normal and flood flow conditions, derived from River Gauging Stations (RGS) and hydrological modeling undertaken in the County's Integrated Master Plan. This information is fundamental for understanding inter-seasonal variability, planning for water allocations, and evaluating long-term sustainability of abstractions across competing users.

2 Kericho county is on estimate 259,373ha

Table 2.1: Estimated Annual Surface Water Availability per Sub-basin (IMaP & WRA)

River Sub-basin	Area (km²)	Estimated Discharge (MCM/year) – Normal	Estimated Discharge (MCM/year) – Flood Season
Nyando	1,484	59.31	244.31
Sondu	2,632	175.38	579.08

The values were derived from flow measurements at River Gauging Stations (RGS), such as 1GD03 (Kipsonoi) and 1GD04 (Itare), and reflect typical ranges across wet and dry seasons.

2.2.2 Monthly Flow Patterns and Flow Duration Analysis

Understanding the seasonal and inter-annual flow dynamics of Kericho's rivers is essential for determining water availability, allocation reliability, and infrastructure sizing. Monthly flow analysis helps capture how discharge varies throughout the year, identifying peak wet-season surpluses and dry-season deficits. Equally important is the development of Flow Duration Curves (FDCs), which summarize the probability of exceedance of different flow magnitudes. FDCs are critical for gauging the reliability of river flows for abstraction purposes, especially in rural schemes that rely on gravity-fed or direct intake systems. Data for this analysis were derived from historical records of the Water Resources Authority (WRA) at strategic River Gauging Stations (RGS), including RGS 1GD03 (Kipsonoi River @ Bureti) and RGS 1GD04 (Itare River @ Londiani). Where flow records were insufficient, monthly discharges were estimated using calibrated rainfall-runoff models based on CHIRPS satellite precipitation datasets and catchment hydrological response models adopted in the Kericho Integrated Master Plan (2018). The Kipsonoi River, which serves a substantial portion of the Belgut–Ainamoi corridor, demonstrates sharp seasonal variability. Peak flows occur in April and May, corresponding to the long rains. Conversely, the lowest flows are recorded in February and early March, coinciding with the dry season. The Q50 value (median daily flow) is used to represent a typical flow scenario, while the Q95 value represents low-flow reliability and informs the minimum sustainable abstraction volume.

Table 2.2: Monthly Mean Flows and FDC Statistics – Kipsonoi and Itare Rivers

Parameter	Kipsonoi River (1GD03)	Itare River (1GD04)
Catchment Area (km²)	712	843
Average Annual Flow (MCM/year)	78.4	91.2
Mean Daily Flow (m³/s)	2.49	2.90
Monthly Flow (m³/s):		
January	0.72	1.10
February	0.52	0.88
March	1.34	1.68
April	6.95	7.92
May	7.60	8.10
June	3.40	3.80
July	2.55	2.75
August	2.05	2.40
September	1.68	2.10
October	3.90	4.20
November	5.42	6.10
December	2.30	2.70
Q5 (High Flow - 5% Exceedance)	10.8	11.6
Q50 (Median Flow)	2.10	2.35
Q95 (Low Flow - 95% Exceedance)	0.48	0.54

Source: WRA records (2010–2018), Kericho IMaP, CHIRPS rainfall-runoff simulation (for data gaps).

2.2.3 Major River Systems and Catchments

Kericho County's surface water network is composed of several major river systems and their tributaries, each serving distinct ecological and economic functions. Understanding these systems at the catchment level provides a granular view of water resource distribution and utilization. The table below summarizes the four principal river systems, detailing their major tributaries, geographic catchment areas within the county, and primary usage categories such as domestic supply, irrigation, urban water intake, and industrial use. This categorization informs investment planning by linking water availability to service coverage gaps, land use types, and sector-specific demand zones within the county.

Table 2.3: Major Rivers, Tributaries, and Usage

River	Tributaries	Catchment Zones	Primary Uses
Chemosit	Cheboson, Kapsoit	Belgut, Kipkelion West	Community water, tea irrigation
Itare	Kipsolu, Tulwet	Kipkelion East, Soin/Sigowet	Gravity-fed rural schemes, livestock
Timbilil	Brooke, Kabiana	Ainamoi, Belgut	KEWASCO urban intake, estates
Chepkositonik	Chebigen, Chesower	Kipkelion East, Bureti	Agro-processing, markets

2.2.4 Water Source Capacities and Associated Climate Risks

Assessing key water sources' hydraulic capacity and vulnerability to climate-induced and anthropogenic risks is imperative for effectively managing and protecting them. The table below provides a detailed profile of Kericho's strategic surface water abstraction points and representative borehole sources. It lists the average daily abstraction potential (in cubic meters per day) based on long-term yield assessments. It matches this with identified climate risks, such as reduced dry season flows, flooding, and pollution susceptibility. These insights are essential for risk-informed infrastructure design, prioritization of protection zones, and resilience-building within the county's water supply systems.

Table 2.4: Daily Capacity and Climate Risk Assessment for Key Rivers

Water Source	Type	Capacity (m^3/day)	Climate Risks
Chemosit (1JB)	Surface	6,011	Flooding, Pollution
Kiptere (1JA)	Surface	18,579	Reduced flow in drought, Pollution
Kipsonoi (1JF)	Surface	12,295	Flooding, Pollution
Yurith (1JD)	Surface	1,913	Flooding, Pollution
Ainapkoi (1JC)	Surface	3,279	Reduced flow, Pollution
Sondu (1JG)	Surface	46,645	Flooding, Pollution
Kipchorian (1GC)	Surface	11,202	Flooding
Boreholes (Various)	Groundwater	133,880	Groundwater depletion

These river intake points constitute the primary abstraction nodes for rural and urban supply. However, the declining base flows and flash flood surges pose dual challenges of dry-season scarcity and infrastructure damage.

2.2.5 Seasonal Variability and Impacts on Water Source Sustainability

Kericho County, despite being relatively water-endowed due to its location within the Mau Forest catchment, experiences substantial seasonal variability that undermines year-round water reliability. The county's bimodal rainfall pattern — long rains from March to June and short rains from October to

December — creates fluctuating runoff and groundwater recharge. Hydrological data from gauging stations such as 1GD03 (Kipsonoi) and 1GD04 (Itare) show peak river flows during April–May, often exceeding infrastructure capacity, leading to overflows and flooding. Conversely, February and early March mark periods of Q95 low flows, which stress unprotected springs and run-of-river schemes, especially in vulnerable sub-counties like Kipkelion East, Belgut, and Soin. These low flows constrain dry-season abstractions unless reserve flows are protected for ecological and downstream needs.

The table below, derived from long-term discharge data, reveals that median flows (Q50) of the Kipsonoi and Itare rivers can support basic domestic needs for most of the year. However, Q95 low flows, which represent flows exceeded only 5% of the time, fall below thresholds necessary for bulk abstractions or irrigation schemes, especially during prolonged dry spells. As per the UK and Montana reserve flow methodologies, Q95 values have been adopted as the minimum environmental flows to safeguard aquatic ecosystems and equitable downstream access. Consequently, these Q95 thresholds act as regulatory benchmarks in evaluating abstraction permits and scaling existing schemes, making them a critical determinant in Kericho's sustainable water planning and infrastructure investments.

Table 2.5: Seasonal Flow Thresholds and Service Delivery Implications for Key Rivers in Kericho County

River	Sub-basin	Q50 Flow (m^3/s)	Q95 Flow (m^3/s)	Dry Season Stress Level	Abstraction Risk	Description
Kipsonoi	1JF	2.10	0.45	High	Severe	Flow declines <1m^3/s in Feb–Mar
Itare	1JA	2.35	0.55	High	Severe	Seasonal abstraction often reduced
Chemosit	1JB	1.60	0.30	Medium	Moderate	Infrastructure at flood risk during peak
Kiptere	1JA	2.95	0.70	Medium–High	High	Intermittent withdrawals in dry months
Sondu	1JG	4.30	1.10	Low	Moderate	Consistent flow, but catchment degradation rising

Note: Q95 and Q50 values are based on the Kericho Integrated Water Master Plan 2018 discharge data and WRA hydrology datasets.

This data clearly illustrates how seasonal flow limitations hinder service reliability, especially for gravity-based rural systems, unprotected springs, and irrigation schemes reliant on run-of-river abstraction. Systems without adequate buffering mechanisms (e.g., storage tanks or aquifer backup) frequently experience dry-season interruptions, triggering household reliance on unsafe alternatives or expensive vendor-supplied water. To strengthen adaptive capacity, the CWSSIP recommends:

- Enforcing abstraction limits based on reserve flow thresholds (Q95);
- Investing in off-season storage (e.g., weirs, tanks) and seasonal water transfer schemes;
- Prioritizing solarized boreholes and managed aquifer recharge in dry belt areas (e.g., Soin, Kipkelion East);
- Strengthening WRUA monitoring of dry season abstractions.

This approach will ensure year-round service continuity, protect ecological flows, and enable climate-resilient water allocation planning.

2.2.6 Climate Change Hazards, Service Impacts, and Adaptation Measures

Kericho County is experiencing observable and scientifically backed impacts of climate change, manifesting through increased rainfall variability, rising mean temperatures, longer and more frequent droughts, and episodic flood events. These climatic shifts have critical implications for the sustainability of water sources, agricultural productivity, public health, and infrastructure integrity. The analysis below synthesizes insights from the National Climate Change Action Plan (NCCAP 2018–2022), CHIRPS and KMD datasets (2000–2022), and field-based observations compiled during CWSSIP development. Analysis of climate records from the Kenya Meteorological Department, CHIRPS satellite rainfall datasets (2000–2023), and community consultations shows:

- Severe droughts occurred in 2000, 2009, 2016, and 2022, with rainfall deficits of up to 45% below the long-term average. During the 2016 drought, over 28% of rural water sources dried up, notably in Soin/Sigowet, Kipkelion East, and parts of Londiani.
- Flash flooding during the 2010 El Niño and April–May 2018 rains displaced over 1,500 households in the Ainamoi lowlands, damaged multiple rural intakes (e.g., Kiptere), and led to the overflow of the Chemosit River, which temporarily shut down 3 piped schemes.
- Return period analysis (based on WMO/CHIRPS data) shows:
    - 1-in-5-year probability of moderate drought
    - 1-in-10-year probability of severe flood in riparian plains (e.g., Yurith and Sondu belts)

2.2.6.1 Temperature Trends

Over the past three decades, Kericho has recorded a steady increase in average annual temperatures. Analysis from the Kericho Meteorological Station shows:

- A +0.7°C rise in mean daily temperature between 1990 and 2022.
- The number of extreme heat days (>30°C) has increased by 18% over the last decade.
- Warmer night-time temperatures have affected highland crop zones, with reduced dew point formation, impacting tea quality and forest regeneration.

Rising temperatures also increase evapotranspiration rates, thereby intensifying dry-season water stress and degrading shallow spring flows and borehole recharge.

2.2.6.2 Rainfall Patterns and Variability

Rainfall in Kericho remains bimodal, but its seasonal predictability and spatial distribution have declined, especially since 2010. Analysis using CHIRPS (Climate Hazards Group Infrared Precipitation with Station Data) and validated by KMD observations reveals:

- Onset delays of 2–3 weeks, particularly for long rains (March–May).
- Shorter rainy seasons, leading to inadequate aquifer recharge in Londiani, Kipkelion East, and parts of Soin/Sigowet.
- Increasing frequency of high-intensity rainfall events, contributing to flash flooding and erosion.
- Year-to-year rainfall fluctuation exceeding ±25% of long-term monthly averages, particularly in April and November.

2.2.6.3 Drought Frequency and Severity

The return period of major droughts has decreased, with notable events in 2000, 2009, 2016, and 2022. Drought conditions are now occurring at 4–6 year intervals, compared to 8–10 years in the early 1990s, indicating increased frequency and severity. Impacts recorded during these years include:

- Drying of >28% of unprotected springs.
- Failure of over 50 boreholes in high-use zones like Kipkelion East and Ainamoi.
- Increased reliance on unsafe sources and vendors, especially for women-headed households in low-income areas.
- Triggered livestock losses and food insecurity in agro-pastoral fringe areas.

2.2.6.4 Impacts on Water and Sanitation Systems

- Water infrastructure degradation due to thermal expansion, drought-induced subsidence, and flood erosion.
- Increased waterborne disease outbreaks (e.g., dysentery, typhoid) following floods and dry spells.
- Rising O&M costs for KEWASCO and rural water projects due to more frequent disruptions and repairs.

Table 2.6: Summary of Observed Climate Trends in Kericho County (1990–2022)

Parameter	Trend	Impact
Mean Temperature	+0.7°C over 30 years	Higher evapotranspiration, borehole depletion, and increased water demand
Rainfall Onset	Delay of 2–3 weeks since 2010	Affects planting, spring recharge, and seasonal abstraction planning
Rainfall Intensity	More extreme events (e.g., 80mm/day)	Flash floods, siltation of intakes, and damage to rural schemes
Drought Frequency	From 1-in-8 to 1-in-4 year return period	Drying of sources, increased cost of water, health, and food insecurity

Kericho County is increasingly exposed to climate-related water stress, particularly from recurrent droughts and seasonal floods. These events not only affect water availability and infrastructure resilience but also compromise public health, agricultural productivity, and institutional service delivery. The frequency and severity of extreme events have escalated over the last two decades, driven by deforestation, land degradation, and climate variability linked to El Niño–Southern Oscillation (ENSO) cycles.

2.2.6.5 Exposure of WASH infrastructure and water resources

See Section 2.4.2 and Table 2.8 for a detailed analysis of climate risks affecting sanitation infrastructure and the corresponding adaptation measures for sewered and non-sewered services.

Table 2.7: *Climate Change Hazards, Service Impacts, and Adaptation – Water Supply Infrastructure*

Climate Hazard	Water Consumption	Service Quality	Impacts on infrastructure	Social impact	CWSSIPs investments Affected	Climate Proofing
Prolonged dry spell	• Communities and water utilities may face supply shortages, resulting in water rationing or supply interruptions. • Water use restrictions become common during droughts/ dry spells, so farmers face higher costs when looking for alternative sources of water for their agricultural needs. • Industrial water prices rise due to limited supply. Likewise, industries incur higher costs sourcing water from alternative sources	• Higher Contamination Risks • Increased Frequency of Water Shortages • Inconsistent Water Pressure • Increase in Service Costs • Increased Operational Costs • Increased Strain on Groundwater Systems	• Deterioration of infrastructure • Soil subsidence from over-pumping groundwater can physically damage pipes and canals • Utilities often overdraw limited resources, which accelerates wear and tear • Pumping Systems may need to be retrofitted or deepened to reach lower water levels.	• Reduced access to clean water for drinking, cooking, hygiene, and sanitation. • Poor water quality leads to waterborne diseases (e.g., cholera, dysentery) • Farmers lose crops and livestock, reducing income, which leads to food insecurity and higher food prices • Competing water users (farmers, domestic consumers, industries) may clash over rights and priorities. • Time wasted by the resident searching for water from sources farther away	All surface and groundwater investments in the County.	• Expand reservoir capacity • Efficient distribution systems by fixing leaks in pipelines and using smart metering to monitor usage • Implement tiered pricing, water restrictions, and public awareness campaigns to enhance water efficiency • Enforce climate-resilient infrastructure standards and designs • Nature-based solutions such as wetland restoration, reforestation, and soil conservation • Drought preparedness by incentivizing water-saving appliances (low-flow toilets, greywater systems) • Public campaigns on water conservation, pollution prevention, and water reuse
Heavy rains, waterlogging	Leads to less consumption of water from the water investments, leading to losses in terms of revenue	• Contamination or degradation of resources by; uncontrolled stormwater runoff; submersion or groundwater flooding of pits containing pollutants • Water treatment plants face higher loads and costs to meet quality standards • Interruption of service due to damage to water installations • Inaccessibility to water points (water logging) may reduce	• Destruction of infrastructure; • Floodwaters can rupture underground pipes or wash away above-ground equipment • Sediment, debris, and chemicals can clog filters or destroy equipment. • Repeated floods can cause foundation erosion, pipe misalignment, and underground voids	• Access to clean drinking water is often disrupted, leading to waterborne diseases. • Water logging increases the spread of diseases-waterborne, vector-borne, and skin infections • May lead to the investments becoming redundant. • Heavy rains may cause loss of revenue and prevent the investments from break-even	1. Chepngobob – Kiptegan Water Project Lastmile Connectivity 2. Maso-Kewasco Lastmile connectivity Water Project 3. Kaboswa Cheptagum Water Project Lastmile Connectivity 4. Rehabilitation and Extension of Seretut Water Project 5. Kapsoroget-Kapkutei Lastmile Connectivity Water Project 6. Brook-Kewasco Lastmile Connectivity Water Project 7. Kipsolu Pipeline Water Project 8. Chepkurbet-Kewasco Lastmile connectivity water project 9. Sulvan-Annex Water Project	• Incorporate wetlands and check dams to absorb flash flood waters. • Elevation of critical components and infrastructure above projected flood levels. • Deploy temporary or permanent flood barriers and seals • Regular Monitoring of water levels, flow rates, and infrastructure integrity

		the reliability of the water investments • Siltation of intake works; Eroded soil increases sediment load in rivers and reservoirs, reduces storage capacity, affects aquatic life, and clogs water treatment systems.		• Damaged infrastructure may require expensive fixes	10. Simotwet borehole water project 11. Cheptangulgei Water Project 12. Kipkoyo Water Project 13. Londiani Water Supply Project Last-mile Connectivity 14. Itoik/Farmers' Borehole Water Project 15. Jagoror borehole water project 16. Kabarak borehole water project 17. Kapcheplanga Water project 18. Katet Water Project 19. Kapkondor/Cheusi/Setek/Itoik Water Project 20. Chepkosilen borehole water project. 21. Sorget Primary School borehole water project 22. Enginit Borehole Water Project 23. Kapkondor/Cheusi/Setek/United Water Project 24. Chesire Water Project 25. Chepkeikei water project 26. Kondamet Spring Brooke Water Project 27. Chemutian Water Project 28. Sombicho Water Project 29. Chesiche Water Project 30. Kenegut - Koisagat Water Project 31. Chebilawa Kusumek water project 32. Kendabei water Project 33. Seretut KEWASCO Water Supply Project 34. Bureti Water Supply 35. Kapsoit KEWASCO Water Supply Project 36. Kabianga Water Project 37. Kaplutiet borehole water project 38. Soliat Water Supply Project 39. Kipkobob Water Supply Project 40. Timbilil water supply project 41. Kiptegan water project 42. Kiboybei Water Supply Project 43. Tendwet water supply project 44. Kiptunoi Water Supply Project 45. Chesonoi water supply project 46. Kapkenyoloi- Kaitui-Kabosenwa Water Project 47. Sombicho Water Project 48. Tegunot, Kiplelechon, Kedowa/Ndarugu, Masaita, water supply projects 49. Jagoror, Kiptangit, Barotion & Cheres water supply projects	
landslides	• Communities and water utilities may face supply shortages due to	• Disrupted Water Flow reduces the overall supply, and communities may face low-	• Destruction of infrastructure • Sediment build-up can reduce reservoir storage	• Destruction or severe damage to infrastructure may lead to loss of service.	1. Simotwet borehole water project 2. Timbilil water supply project	• Planting of climate-friendly trees, • Stabilizing of slopes

	infrastructure destruction or damage.	pressure or even total loss of supply. • Contamination of Water Sources	capacity and affect the aesthetic and ecological quality of water sources. • In some cases, landslides may trap equipment or damage maintenance facilities, further complicating the recovery process.	• Contaminated water supplies cause the Spread of infectious diseases • Landslides in rural areas often destroy crops and farmlands, leaving farmers with no source of income. • Increased Costs of Water Treatment and Supply	3. Turgut Mbaragai water supply project in Kunyak Ward 4. Kapkese-Kaplelit-Cherara water supply project 5. Chesonoi water supply project 6. Tendwet water supply project 7. Kipkobob Water Supply Project	• Use flexible and reinforced pipes such as HDPE or GI pipes that can withstand ground movement • Provide sufficient anchorage to pipelines • Construct check dams and contour trenches to slow water flow and reduce sediment buildup

Table 2.8: Climate Change Hazards, Service Impacts, and Adaptation – Wastewater Services

Climate Hazard	Impacts on infrastructure & Service quality	Impacts on the environment and water resources	Social impact	CWSSIPs investments concerned	Climate Proofing
Prolonged dry spell	• Reduced Water Availability for Wastewater Systems leads to reduced efficiency in the treatment process, as the wastewater may become more concentrated. • A prolonged dry spell can cause the soil to dry out, disrupting the functioning of septic tanks and ponds	• Reduced wastewater flow and higher contaminant concentration • Water pollution and ecosystem harm due to untreated or poorly treated discharges and groundwater contamination • Reduced water reuse potential for irrigation and industries	• Affects health and hygiene due to exposure to highly concentrated contaminated water • Reduced sanitation access due to water rationing • Increased use of pit latrines, which may lead to groundwater contamination • Drought-damaged infrastructure may require expensive fixes	1. Decentralised Treatment Facility in Kipsitet 2. Decentralised Treatment Facility in Roret 3. The Londiani waste water treatment plant 4. Improvement of Kericho Waste Water Management 5. Fecal Sludge Management in Kericho	• Improvements of wastewater infrastructure i.e., decentralized systems, automated leak detection systems and corrosion-resistant materials (HDPE) to handle concentrated wastewater • Treatment plant adaptations, such as modular and scalable designs to handle fluctuating flows • Strict pre-treatment laws for industries to reduce pollutant loads • Adopt emerging technologies and innovations such as anaerobic digestion/Biogas
Heavy rains, Water logging	• Destruction or Damage to infrastructure • Disruption of Service Delivery • Leads to filling of the WASH structure faster than anticipated	• Pollution of the environment and water sources	• Toilets and sanitation systems fail, causing hygiene crises in shelters or overcrowded areas. • Floods increase the spread of diseases-waterborne, vector-borne and skin infections	1. Decentralised Treatment Facility in Roret 2. Londiani waste water treatment plant 3. Improvement of Kericho Waste Water Management 4. Fecal Sludge Management in Kericho	• Reinforcing sewer networks i.e. pipe relining, check valves • Stormwater and groundwater management i.e. separation of storm and sewer systems • Incorporate wetlands and check dams to absorb flash flood waters. • Elevation of critical components and infrastructure, above projected flood levels. • Deploy temporary or permanent flood barriers and seals
Land slides	• Destruction or damage of infrastructure • Interruption of service	• Pollution of water sources	• communities will be forced to rely on unsafe alternatives • Loss of agricultural productivity if farmland is polluted		• Planting of climate friendly trees, • Stabilizing of slopes • Construct check dams and contour trenches to slow water flow and reduce sediment buildup

2.2.7 Environmental & Anthropogenic Risks to Surface Water

Surface water yield is increasingly compromised by:

- Deforestation in the Mau Forest block
- Encroachment in riparian zones
- Unregulated land-use practices (e.g., tea factory efluent and sedimentation)

Several donor-supported interventions (World Vision, Plan International) have aided spring protection, but long-term sustainability remains at risk in Soin-Sigowet, Kipkelion West, and Bureti.

2.3 Groundwater Resources

Kericho County's groundwater resources exhibit significant spatial variability in yield, recharge potential, and long-term sustainability. Complex geological formations and rainfall recharge regimes govern this variability. Data for this analysis were drawn from the National Water Master Plan (NWMP) 2030 and the JICA groundwater database, which models groundwater dynamics at the sub-basin level under current and future conditions. Groundwater in Kericho generally flows westward toward Lake Victoria and is influenced by regional topography and river basin alignments. The highest-yielding aquifers are concentrated in the southwestern sub-counties—notably Kipkelion West, Soin-Sigowet, and Belgut—underlain by pre-Cenozoic sedimentary rocks, known for their fractured and permeable structure. In contrast, zones underlain by Quaternary sedimentary formations in the east and metamorphic–intrusive rocks in the northwest exhibit lower yields and higher salinity risks. According to NWMP 2030 projections:

- The sustainable annual groundwater yield for the region was estimated at 54 MCM/year in 2010, declining to 49 MCM/year by 2030, mainly due to reduced recharge and land use pressures.
- The broader Lake Victoria South Basin (LVSBA), which includes Kericho, shows a decrease in groundwater recharge from 2,294 MCM/year (2010) to 2,111 MCM/year by 2030.

This projected decline necessitates careful abstraction planning, aquifer protection, and recharge enhancement strategies to mitigate its impact.

Table 2.9: Sustainable Groundwater Yields in Key Sub-Basins of Kericho County (NWMP 2030)

Sub-Basin Code	Area (km²)	Sustainable Yield (MCM/year) - 2010	Sustainable Yield (MCM/year) - 2030
1GA	473	1.80	1.70
1GC	904	4.80	4.10
1GD	533	9.90	10.40
1GE	601	6.10	6.30
1GF	258	8.70	8.10
1GG	777	6.20	5.80
1JA	777	6.90	6.80
1JB	246	2.50	2.30
1JC	319	3.80	3.70
1JD	263	6.10	6.00
1JF	989	7.50	7.10
1JG	271	1.90	1.70

Source: National Water Master Plan 2030 (JICA), LVSBA Hydrogeological Assessment.

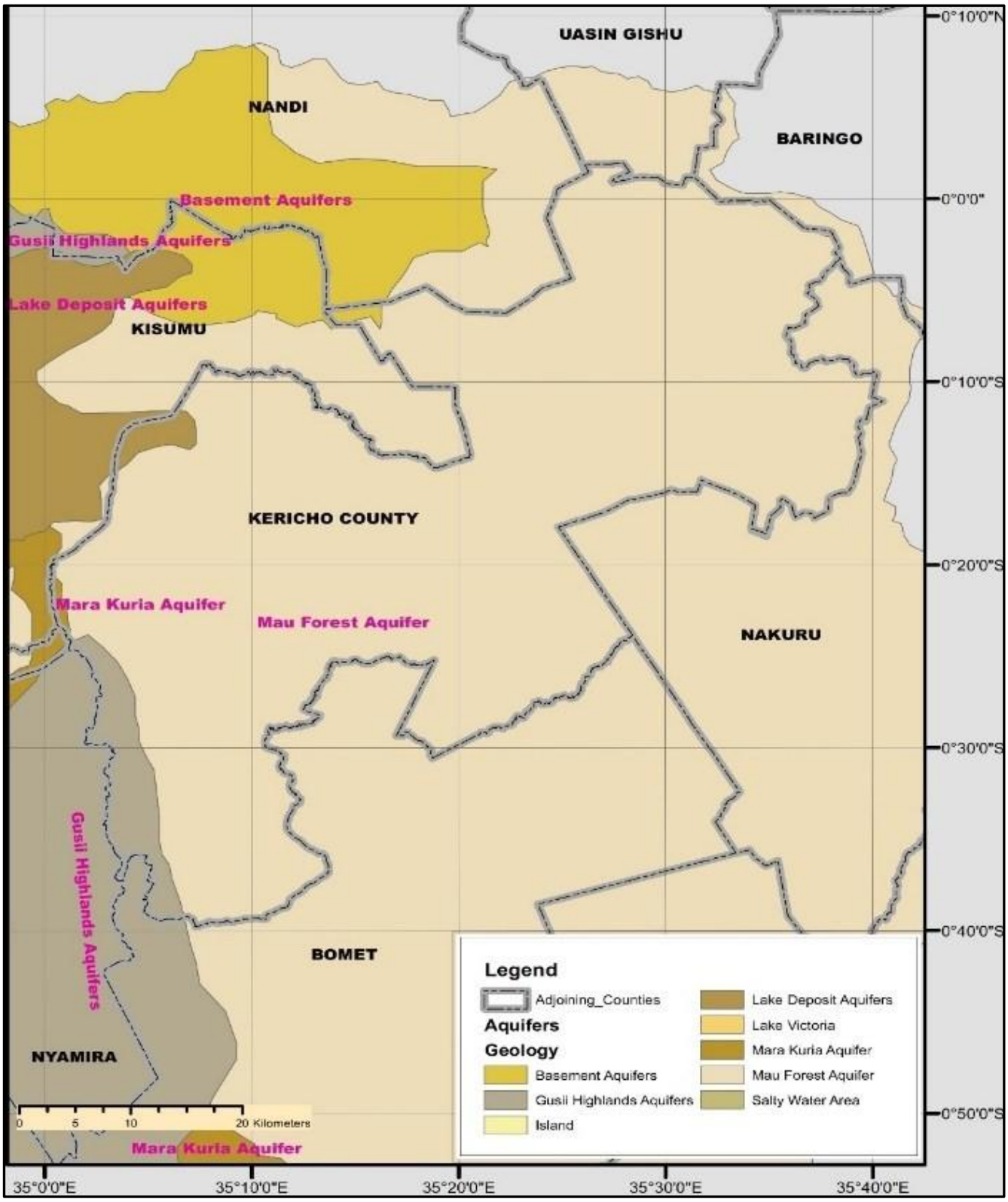

Figure 2.2: Aquifer map: Data source: JICA NWMP 2030 study team

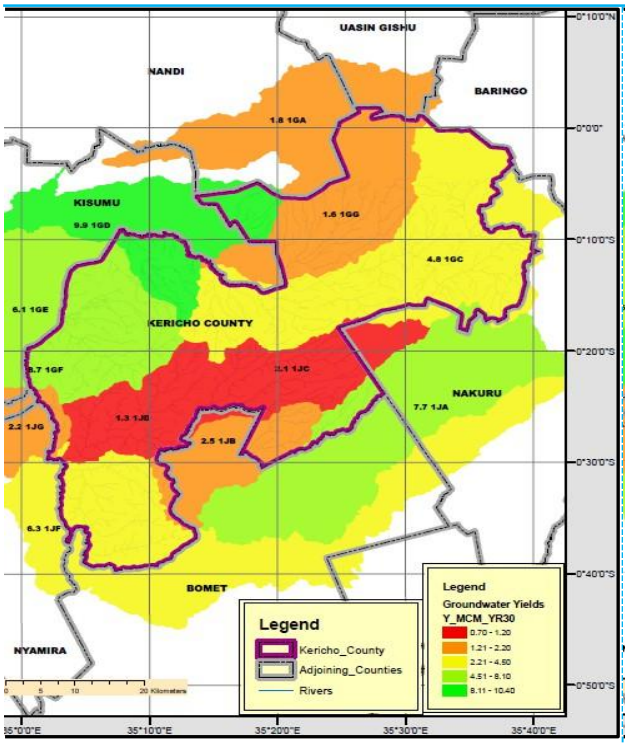

*Figure 2.3 Ground Water Yield (GW) yields in MCM/YR modelled as at **2030**: Source: NWMP 2030*

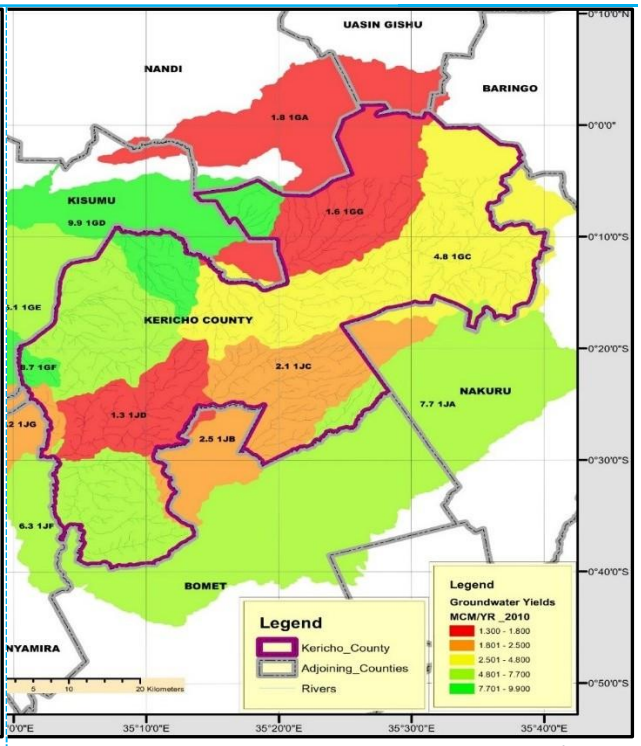

*Figure 2.4: Ground Water Yield (GW) yields in MCM/YR modelled as at **2010**: Source, NWMP 2030*

For planning purposes, therefore:

- Sub-basins 1GD, 1GF, and 1GE offer the highest long-term groundwater potential and should be prioritized for rural water supply, livestock watering, and climate-resilient fallback sources.
- Sub-basins 1GA, 1JG, and 1JB present lower yields and should be monitored closely for over-abstraction risks, especially where borehole density is increasing.
- The marginal declines across sub-basins from 2010 to 2030 signal recharge stress potentially linked to land degradation, deforestation, and climate change.
- Recommended interventions include:
    - Strategic aquifer zoning and regulation;
    - Promotion of rainwater infiltration and managed aquifer recharge (MAR);
    - Expansion of groundwater monitoring boreholes through WRA partnerships.

2.4 Monitoring and Information Systems

Effective water resource management in Kericho County requires a robust and well-distributed monitoring network for surface and groundwater systems. The Water Resources Authority (WRA) has established a series of River Gauging Stations (RGS) along key rivers, including Nyando and Sondu, as well as selected tributaries. However, current monitoring coverage is limited in both density and spatial distribution, making it insufficient for detailed hydrological modeling, abstraction regulation, or water allocation planning.

2.4.1 River Flow Monitoring Network

The river flow monitoring stations established within and near Kericho County are shown in Figure 2.5 and include both intramanagement and sub-basin management RGSs. These stations are:

a) **Nyando sub-basin**: 1GC03 (Nyando); 1GC04 (Tugenon); 1GG01 (Namuting); 1GD07 (Nyando)
b) **Sondu sub-basin**: 1JD03 (Yurith); 1JG05 (Sondu);
c) **Other key sites**: 1JF08 (Kipsonoi); 1JA02 (Kipteriget); 1JD04 (Ainapkoi)

These RGS locations are crucial for assessing surface water discharge, particularly as the county transitions to results-based financing under NAWASIP. However, several catchments with growing abstraction demand, such as the Chepkositonik, Kiptere, and Chemosit river systems, remain ungauged, creating data gaps in upstream planning and seasonal flow analysis.

The map displays the spatial distribution of river gauging stations (RGS) established by WRA in Kericho County. It shows both intramanagement stations (for internal sub-basin regulation) and management unit RGSs (for cross-county discharge accounting). However, major rivers such as Chemosit, Chepkositonik, and Kiptere remain ungauged, as do nearly all groundwater zones.

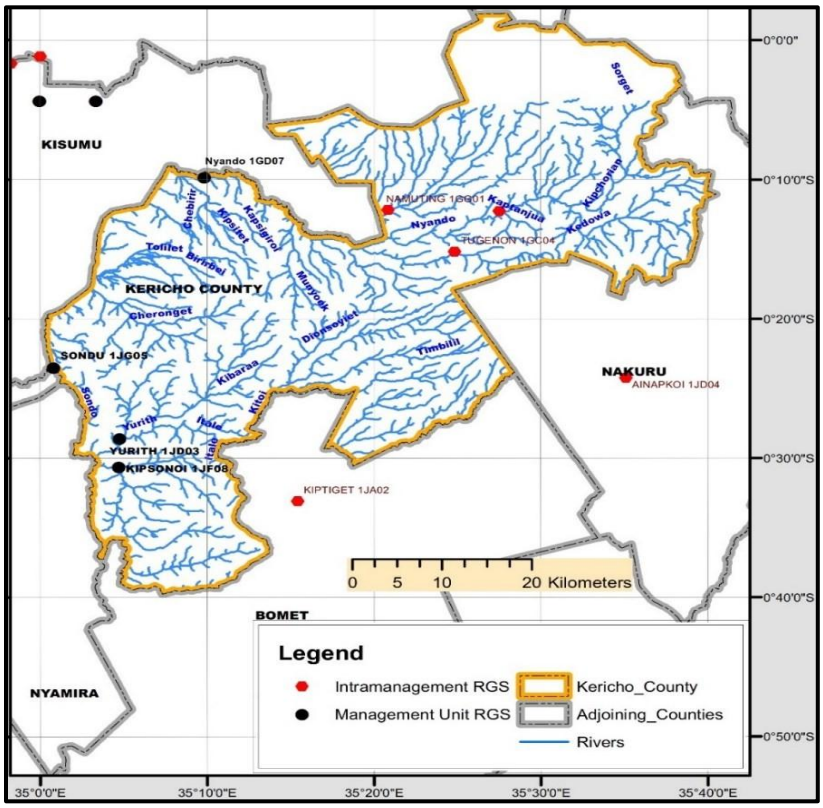

Figure 2.5 Hydrological monitoring station

2.4.2 Groundwater Monitoring Deficiencies

Groundwater monitoring remains the least developed component of the county's water information system, despite growing dependency on boreholes for domestic and institutional supply. While WRA and partner agencies (e.g., WARREC, WASREB) have initiated pilot groundwater quality surveillance in Soin/Sigowet and Kipkelion West, there is no continuous monitoring program to track water levels, abstraction volumes, or recharge variability. This leaves major aquifers—especially those serving Londiani, Kipkelion East, and Ainamoi—vulnerable to over-extraction and salinization. The current ratio of groundwater monitoring points to active boreholes remains below 15%, significantly limiting the early warning capability and the effectiveness of aquifer management interventions.

2.5 Shared Water Resources and Cross-County Water Transfers

Several water resources within Kericho County are shared with neighboring counties, especially Nakuru, Bomet, and Nyamira. These shared systems include:

- Itare River: Originates in Nakuru (Kuresoi) and flows through Londiani and Kipkelion East into Bomet and Nyamira. It has long been earmarked for large-scale inter-county transfer schemes, including the Itare Dam project, which will deliver water to parts of Nakuru and potentially influence downstream availability in Kericho and Bomet.
- Nyongores River and Amalo River: These are shared between Kericho and Bomet. Both are sources of community gravity schemes and rural irrigation. Informal water sharing exists through community project committees, though no formal allocation agreements or basin-specific protocols are in place.
- Kimugu River (tributary of Kipsonoi): This River is part of the Kimugu Water Supply Project, which involves cross-ward water abstraction and piped transfer from Kipkelion West to Ainamoi Sub-County. While the scheme is within Kericho, it raises intra-county equity considerations that mimic inter-county transfer dynamics.

Despite the high dependency on these shared sources, no formal cross-county water allocation agreements exist. Coordination is often informal, reactive, and limited to emergency drought-sharing arrangements or donor-driven schemes.

2.5.1 Planning Implications and Recommendations

- Formalize inter-county water allocation protocols, especially where major rivers like Itare and Nyongores cross political boundaries and serve multiple abstraction zones.
- Expand RGS density and automate flow loggers to improve data temporal resolution, particularly in highly utilized or stressed catchments.
- Develop a strategic groundwater monitoring network, including automated piezometers and quality surveillance in high-use borehole zones.
- Integrate WRA monitoring with CWSSIP investment planning, ensuring that a monitoring mechanism covers all high-value abstraction points before infrastructure expansion.

2.6 Catchment Situation

Kericho County falls entirely within the Lake Victoria South Basin Area (LVSBA), located in the southwestern part of Kenya. This basin borders the Lake Victoria North Basin Area (LVNBA) to the north, the Rift Valley Basin Area (RVBA) to the east, the Republic of Tanzania to the south, and Lake Victoria to the west. The LVSBA is one of Kenya's five major catchment areas, contributing significantly to regional water security, livelihoods, and ecological integrity.

Notably, Kericho hosts part of the Mau Forest Complex, one of the country's five major "water towers." This includes:

- Northern Tinderet (11,135 ha)
- Southern Tinderet (23,095 ha)
- Londiani (8,630 ha)
- South Western Mau (11,176 ha)

These protected forest blocks span the northern, western, and southwestern parts of the county and collectively cover approximately 16.98% of Kericho's total land area. These forests play a critical role in regulating river flows, enhancing infiltration, and reducing erosion, and their degradation has severe implications for long-term water availability.

a) Basin Size and Renewable Water Potential

The LVSBA's total area is 27,116 km², accounting for approximately 4.6% of Kenya's total landmass. According to the National Water Master Plan 2030, the basin's estimated renewable water resource was 7.07 billion cubic meters (BCM/year) as of 2010. This value is calculated as precipitation minus evapotranspiration, encompassing both surface and groundwater recharge.

The per capita renewable water availability within LVSBA is estimated at 959 m³/year, slightly below the internationally recommended threshold of 1,000 m³/year for water stress. Kericho County accounts for approximately 9.56% (2,593 km²) of LVSBA's total area and contributes both surface runoff and groundwater recharge through its extensive forest cover and steep escarpments.

b) Drainage and Water Resource Contribution

Kericho is primarily drained by the headwaters of the Nyando and Sondu river systems, which originate in the county's highland zones. These rivers play a pivotal role in regional hydrological connectivity and are a source of domestic water, irrigation, and ecological flows downstream.

The estimated annual surface water availability flowing into Kericho from the Sondu sub-basin is 175.375 million cubic meters (MCM/year), while Nyando contributes approximately 59.313 MCM/year. These flows are susceptible to seasonal variability and land-use pressure, especially in degraded sub-catchments.

c) Catchment Degradation and Pressures

The integrity of the catchment areas in LVSBA is under increasing threat due to:

- Deforestation and encroachment into forest reserves
- Unsustainable land-use practices, such as steep-slope cultivation
- Conversion of wetlands and riparian zones to agriculture
- Non-point source pollution from agrochemicals, livestock efluent, and unregulated wastewater discharge
- Rapid urbanization, which is increasing runoff and point-source pollution without adequate waste treatment

As a result, LVSBA's hydrological balance is at risk, requiring coordinated catchment protection, enforcement of land-use regulations, and investment in integrated watershed management.

Table 2.10: Annual Water Availability in LVSBA

Year	Surface Water (MCM/year)	Groundwater (MCM/year)	Total Renewable Water (MCM/year)
2010	4,773	203	4,976
2030	5,749	188	5,937

Source: National Water Master Plan 2030 (JICA)

The projected increase in surface water availability is attributed to enhanced rainfall and basin-wide interventions, while the decline in groundwater reflects reduced recharge and growing abstraction.

The map below shows the distribution of gazetted forest blocks within Kericho that contribute to the recharge and flow regulation of the Sondu and Nyando river systems. These areas also act as critical ecological buffers for the LVSBA and form the core of integrated watershed conservation strategies.

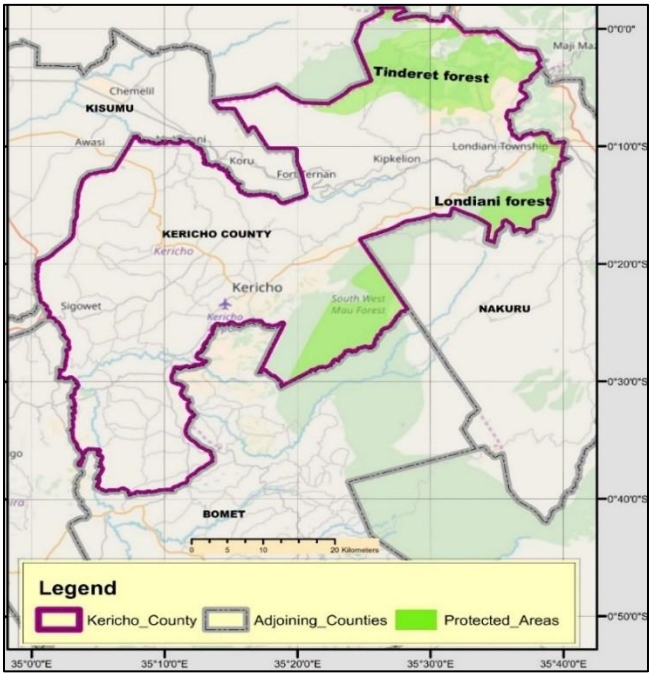

Figure 2.6 Protected areas in Kericho County

2.6.1 Catchment Degradation and Buffer Zone Priorities

Kericho County's hydrological integrity is increasingly undermined by accelerating catchment degradation, primarily driven by land-use changes, deforestation, sedimentation, and pollution. These issues are particularly acute in upper sub-catchments where Headwater Rivers originate, including Kipsonoi, Chemosit, Itare, and Chepkositonik. These sub-catchments are vital to maintaining baseflows and ecological stability in the broader Lake Victoria South Basin Area (LVSBA).

a) Key Degradation Drivers

The degradation of the catchment areas is attributed to an interrelated set of pressures, including:

- Deforestation and encroachment in protected areas, especially along the southern edges of the Mau Forest Complex (notably South-Western Mau and Londiani blocks).
- Cultivation on steep slopes without terracing or soil conservation increases surface runoff and sediment loading in rivers.
- Riparian zone conversion for sugarcane, tea, and subsistence farming disrupts natural filtration and accelerates bank erosion.

- Rapid, unplanned urbanization in trading centers such as Kipkelion, Belgut, and Ainamoi is contributing to point-source pollution from untreated domestic wastewater.
- Overgrazing in lowland areas like Soin/Sigowet and parts of Kipkelion West, causing soil compaction and reduced infiltration.

These pressures have led to increased turbidity, flash flooding, declining groundwater recharge, and reduced seasonal river flow.

Table 2.11: critical degradation hotspots

Zone	Sub-Catchment	Degradation Characteristics
Mau Forest Periphery	Kipsonoi, Itare	Illegal logging, steep-slope farming, and reduced canopy cover
Belgut Escarpments	Chemosit	Sheet erosion, gulley formation, encroached riparian buffers
Ainamoi Urban Fringe	Yurith, Sondu	Surface sealing, untreated efluent, urban sprawl
Kipkelion East Foothills	Chepkositonik	Sediment-laden runoff, seasonal spring drying
Soin Lowlands	Tulwet, Kipchorian	Pasture degradation, limited vegetation, shallow aquifer depletion

b) Buffer Zone Priorities and Recommended Interventions

In response to the identified risks, the CWSSIP prioritizes the rehabilitation and protection of riparian and recharge buffer zones, particularly those feeding high-yield community water supply schemes and strategic ecosystems. Recommended interventions include:

i. Rehabilitation of degraded riparian belts

- Re-establish 30–50m buffer widths along vulnerable rivers such as Kipsonoi, Chemosit, and Chepkositonik using indigenous vegetation and grass strips.
- Promote community riparian management agreements, particularly in hotspot areas of Belgut and Kipkelion West.

ii. Soil and water conservation on steep slopes

- Scale up terracing, contour bunds, and agroforestry in upper catchment farmlands, supported by County Agriculture and NEMA guidelines.
- Train households on slope classification and soil erosion risk management.

iii. Urban stormwater and greywater control

- Construct storm drains and wetlands in high-density settlements like Litein and Londiani to reduce sediment and nutrient loads entering rivers.
- Enforce WRA and county bylaws requiring buffer zones in new urban developments.

iv. Payment for Ecosystem Services (PES) pilots

- Roll out incentive-based conservation programs in source-protection zones above major intakes (e.g., Kipsonoi–Kimugu corridor).
- Mobilize WRUAs to anchor PES contracts between upstream and downstream water users.

c) Institutional Alignment and Monitoring

The implementation of catchment and buffer zone interventions shall be coordinated through:

- WRUAs and CFAs, under the WRA framework.
- County Environment and Water Departments, anchored in CIDP and supported by partners such as LVSWWDA, WSTF, and NGOs.
- Routine monitoring using remote sensing, field inspections, and WRUA scorecards, updated biannually.

These measures are aligned with NAWASIP catchment protection priorities and aim to sustainably improve water availability, quality, and climate resilience at source.

2.6.2 Key Threats to Water Quality and Sustainability

Kericho County faces a growing set of interrelated challenges affecting the quality, availability, and sustainability of its water resources. These include pollution, over-abstraction, climate variability, and degradation of critical catchments. If left unaddressed, these threats may undermine public health, economic productivity, and resilience to climate shocks.

a) Land Use Change and Catchment Degradation

Land use transformation is one of the most significant drivers of water resource vulnerability in Kericho. Over the past two decades, large areas of forested headwaters—especially along the fringes of South-Western Mau, Tinderet, and Londiani forests—have been progressively cleared for farming and human settlement. This trend is most severe in parts of Kipkelion East, Belgut, and Soin/Sigowet, where steep-slope agriculture and informal settlement growth have encroached into riparian zones and critical groundwater recharge areas.

Between 2000 and 2022, Kericho lost an estimated 14% of its forest cover, with Londiani Forest losing nearly 1,500 ha. This directly affected downstream flows in the Itare and Chemosit rivers (source: KFS 2023; Kericho Forest Cover Change Report).

This shift from forested to agricultural land has reduced infiltration, increased surface runoff, and disrupted the hydrological balance, especially in the drier southern zones of the county.

b) Soil Erosion and Siltation Risk

Kericho's topography—marked by escarpments and deeply incised valleys—combined with poor land cover management, has significantly increased soil erosion risk. Sediment transport into rivers such as Kipsonoi, Chemosit, and Kiptere has led to:

- Siltation of intakes, increasing treatment costs for KEWASCO, and causing abstraction interruptions.
- Loss of reservoir capacity in spring-fed rural schemes (e.g., Kusumek, Chepkositonik).
- Degraded aquatic ecosystems, impacting fish populations and biodiversity in the downstream Nyando and Sondu basins.

Soil erosion hazard modeling (Kericho Water Master Plan 2018) identifies Belgut hills, Londiani escarpment, and lower Soin-Sigowet as critical hotspots, with annual sediment yields exceeding 60 tons/ha/year in some tea-growing zones.

c) Pollution of Surface Water Sources

Multiple point and non-point pollution sources have impacted surface and groundwater quality:

- Agrochemical runoff from tea and maize farms introduces pesticides and fertilizers into rivers.
- Improper waste disposal in urban markets (Kapsoit, Brooke, Kipkelion) results in the loading of organic and solid waste into streams.
- Livestock watering points and laundering at riverbanks increase microbial contamination (notably E. coli).
- Groundwater quality threats include:
    - Elevated fluoride levels in Londiani and Kipkelion East boreholes (up to 1.4 mg/l)
    - Iron and manganese contamination in Soin boreholes
    - Improper casing and waste seepage in poorly constructed institutional wells

d) Over-Extraction and Declining Yields

- Increasing demand from industries, institutions, and growing populations has led to unsustainable abstraction, particularly from boreholes in Kipkelion East, Soin/Sigowet, and Belgut.
- Absence of flow meters and real-time monitoring makes it difficult to regulate abstraction rates, especially from community-managed springs and river intakes.
- Groundwater recharge is slowing due to reduced infiltration in degraded catchments.

e) Watershed Degradation

- Encroachment, deforestation, and informal settlements near riparian zones and upper catchments (e.g., Kipchorian headwaters, Mau escarpment) are accelerating erosion and sedimentation.
- Illegal sand harvesting and brick making in riverbeds (notably Kapsoit and Sondu zones) disrupt flow channels and expose groundwater systems.
- Depletion of vegetation buffers increases vulnerability to landslides and reduces aquifer recharge.

f) Climate Change Impacts

Climate risks such as increasing rainfall intensity, longer dry spells, and erratic seasonal onset amplify all the above threats. Heavy rainfall events (e.g., April 2018) lead to flash flooding, increased erosion, and transport of pollutants, while prolonged droughts reduce spring recharge and compromise dilution capacity in low-flow rivers.

Without adaptive investments, these converging threats may result in:

- Reduced annual reliable yield from both surface and groundwater sources
- Decreased operational lifespan of water infrastructure due to sedimentation
- Higher treatment and O&M costs for utilities and rural schemes

Kericho County has initiated several conservation measures and sustainability programs, as captured in the table below, although coverage and enforcement remain uneven.

Table 2.12: conservation measures and sustainability programs

Strategy/Measure	Description	Current Status	Effectiveness/Challenges
Riparian protection regulations	EMCA buffer zone enforcement (6m–30m from rivers)	Implemented in Belgut, Kipkelion	Enforcement is weak in informal settlements
WRUA formation and catchment planning	Chemosit and Kipchorian WRUAs are partially active	Active in 4 catchments	Low funding, limited stakeholder coordination
Spring protection programs	Boxed and capped springs under WSTF, NGO support	>100 springs protected	Vandalism, no maintenance funds
Tree planting and reforestation	Seedling distribution and community greening campaigns near rivers	Mau East and Sondu zones	Seasonal participation, lack of fencing
Rainwater harvesting	School-based rooftop systems and tanks (supported by UNICEF, the Department of Water)	<50% of institutions covered	Limited tank size, irregular maintenance
Solar pumping and borehole upgrades	FLLoCA and County pilot in Soin, Kipkelion East	10 sites funded (2023–2024)	High upfront cost, weak O&M systems

Nature-Based Solutions in Practice: Kericho has begun integrating nature-based solutions (NbS) in water and environmental planning, including:

- Reforestation of riparian and spring recharge zones in Belgut, Bureti, and Kipkelion West;
- Agroforestry pilots on upper escarpment slopes to reduce erosion and promote infiltration;
- Wetland preservation in the Sondu Basin, through WRUA-led fencing and buffer planting;
- Proposed constructed wetlands for greywater filtration in markets like Londiani (conceptual stage under FLLoCA).

However, institutional mainstreaming of NbS is still limited by:

- Inconsistent funding;
- Lack of interdepartmental integration;
- Minimal technical capacity at the ward level for design and implementation.

Anticipated Climate Change Impacts on Water Resources

Table 2.13: Anticipated Climate Change Impacts on Water Resources

Climate Hazard	Expected Water Impact	Vulnerable Zones	Affected Sectors
Prolonged Droughts	Reduced spring and borehole yield; aquifer stress	Soin, Kipkelion East	Domestic, livestock, and schools
Intense Rainfall	Flash flooding, erosion, and source contamination	Londiani, Bureti, Belgut Highlands	Gravity systems, sanitation, and smallholders
Erratic Rainfall Patterns	Unreliable RWH, irrigation planning disruption	Kapkatet, Brooke, Chepseon	ECDEs, food vendors, and dairy producers
Temperature Increase	Evaporation losses in open sources, faster aquifer depletion	Belgut, Kipkelion West, Bureti valleys	Livestock, informal settlements

a) Integrate climate-smart water planning across all county departments;
b) Scale up watershed restoration with community WRUA support;
c) Promote payment-for-ecosystem-services (PES) to incentivize upstream conservation;
d) Expand solarized, metered groundwater systems with real-time monitoring;
e) Include NbS in project appraisal under NAWASIP, FLLoCA, and donor frameworks;
f) Institutionalize catchment management committees at the ward level with operational budgets.

2.6.3 Seasonal Variations and Climate-Related Vulnerabilities Affecting Water Supply

While Kericho County is relatively well-endowed in rainfall and surface water, it is increasingly experiencing climate-related disruptions to water availability. The effects of seasonal fluctuations, combined with climate change-related shocks, have introduced significant variability in water supply, particularly in low-income, informal, and rural settlements.

The county experiences a bimodal rainfall pattern, with long rains from March to June and short rains from October to December. Water availability is strongly correlated with these patterns:

- Dry seasons (January–March and July–September) often lead to:
  - Decline in spring and river flow;
  - Dried-up unprotected wells and seasonal streams;
  - Increased pressure on boreholes and vendor-reliant populations.
- Wet seasons, while beneficial for recharge, bring:
  - High turbidity and contamination of surface sources (especially the Timbilil and Chemosit Rivers);
  - Infrastructure damage from floods and landslides in Londiani, Kipkelion West, and Kapsoit.

These fluctuations disproportionately affect:

- Gravity-fed systems in Kipkelion East and Kipkelion West;
- Unprotected springs used by schools and ECDEs in Soliat and Tendeno;
- Boreholes that are not solarized or mechanized, especially in Bureti and Soin/Sigowet.

Kericho is increasingly exposed to climate-related hazards, notably:

- Prolonged dry spells (affecting recharge and borehole yields);
- Intense rainfall and flash floods (damaging intakes, roads, and latrines);
- Erosion and sedimentation (reducing storage capacity and increasing treatment costs).

To systematically evaluate these risks, the matrix below links water sources to seasonal/climate vulnerabilities:

Table 2.14: Water Source–Climate Risk Impact Matrix (Kericho County)

Water Source Type	Location Examples	Climate Risk	Impact Severity	Estimated HHs Affected	Notable Effects

Springs	Bureti, Kipkelion West	Dry season depletion	High	~36,000	Queueing, conflict, and switching to unsafe sources
Surface Rivers (e.g., Timbilil, Chemosit)	Belgut, Ainamoi, Soin	Flooding, erosion, and contamination	High	~52,000	Service disruption, poor water quality
Boreholes	Kipkelion East, Soin/Sigowet	Drought-induced yield reduction	Medium–High	~25,000	Longer pump times, vendor reliance
Rainwater harvesting	Schools and ECDEs countywide	Irregular rainfall, low storage	Medium	~20,000 pupils	The system is underutilized, and emergency closures in the dry season
Gravity-fed schemes	Kipkelion, Londiani highlands	Landslides, sedimentation	Medium	~18,000	Pipe breaks, elevated turbidity, overflow
Shallow wells & open pans	Soin, Kipkelion East lowlands	Evaporation, pollution	High	~11,000	Unsafe for drinking, high diarrheal risk

Source: Kericho Water Masterplan (2018), WASH Baseline (2023), FLLoCA planning inputs (2024)

Risk Amplification for Vulnerable Populations

- Women and girls are affected most during droughts due to increased collection distances and reduced time for schooling or productive work.
- ECDEs and health facilities suffer service breakdown during dry seasons due to a lack of reserve tanks or contingency supplies.
- Flooding increases waterborne disease outbreaks, particularly in low-lying, informal settlements in Brooke, Kamasian, and Kapkugerwet.
- Households relying on rain-fed rivers and springs are forced to purchase water during dry spells, straining household finances.

Strategic Implications: To address these seasonal and climate-induced vulnerabilities, Kericho County must:

- Invest in protected and climate-resilient sources (e.g., spring protection, solar-powered boreholes);
- Expand rainwater harvesting storage at schools and HCFs (≥10,000L capacity);
- Mainstream hydro-climate risk data into all water planning and infrastructure designs;
- Engage WRUAs and communities in early warning dissemination and water safety planning.

2.6.4 Climate Change Vulnerability Assessment

Kericho County covers the highland and lowland areas, with an average rainfall of 2,125mm/p.a and 1400mm/p.a in the highland and lowland, respectively. This is averaged into Humid and sub-humid climatic conditions. The average temperatures vary between 10°C and 29°C. The rainfall patterns are bimodal, with the long rains occurring from April to June and the short rains from October to December. The driest season typically spans from January to February.

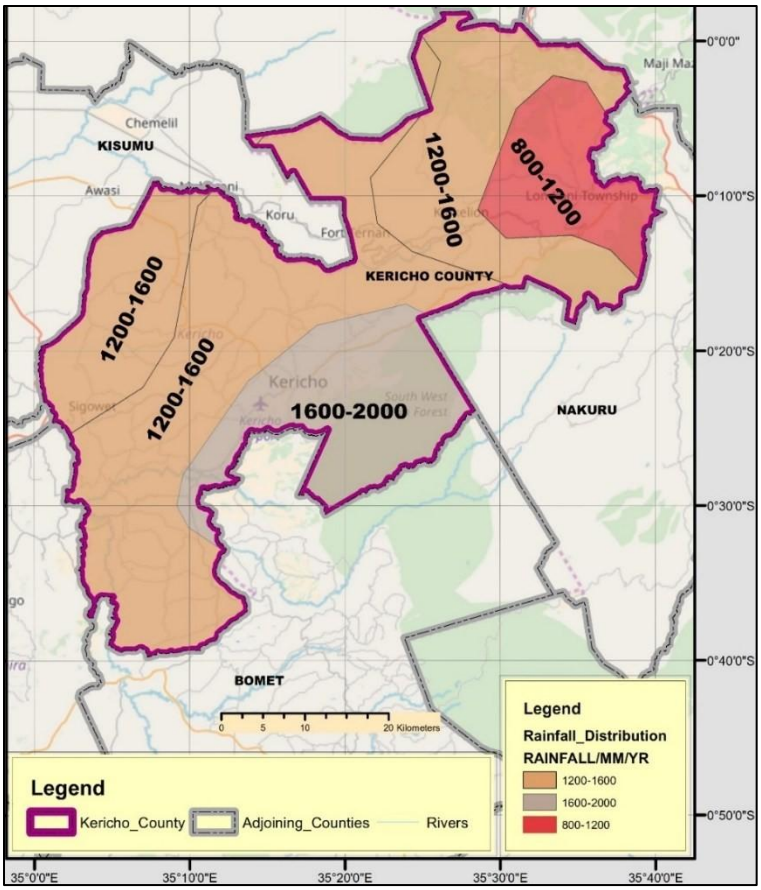

Figure 2.7 Rainfall distribution

Kericho County is increasingly vulnerable to the impacts of climate change, which have measurable effects on water availability, quality, and the reliability of sanitation infrastructure. A combination of extreme weather events, shifting rainfall patterns, and temperature increases is undermining service delivery and sustainability in both rural and urban settings. This section outlines the climate hazards affecting the county, characterizes observed and projected trends, and assesses the exposure and vulnerability of water and sanitation infrastructure.

Kericho's main climate hazards are captured in the table below:

Table 2.15: Climate Hazards Affecting WASH

Climate Hazard	Characteristics
Prolonged Droughts	Occurring more frequently during January–March and July–September, affecting recharge and borehole yields
Flash Flooding	Triggered by high-intensity rains during April–May and October–November, damage roads, intakes, and latrines
Rainfall Irregularity	Shorter rain seasons, increased uncertainty affecting rainwater harvesting and irrigation
Rising Temperatures	Leading to increased evapotranspiration and higher domestic and agricultural water demand

Observed and Anticipated Climate Impacts:

a) Rainfall Patterns

- Onset and cessation have become erratic, complicating water harvesting and cropping calendars.
- Reduced rainfall in Kipkelion East and Soin/Sigowet has led to seasonal water shortages and increased reliance on water vendors.
- Intense short-duration rainfall is causing flash flooding in Belgut, Londiani, and Bureti escarpments.

b) Temperature Trends

- Average daytime temperatures have risen by 0.5–1.0°C over the last 20 years.
- This increases evaporation rates, especially in unprotected springs and storage tanks, and places pressure on smallholder irrigation.

c) Drought Frequency and Severity

- Drought recurrence has shortened to every 2–3 years, with extended dry spells reducing spring yields and stressing shallow boreholes in areas like Kamasian and Cheboin.
- Livestock water needs outcompete the domestic supply during these periods, especially in mixed farming areas of Kipkelion.

The table below summarizes exposure levels of different water and sanitation assets to key climate hazards:

Table 2.16: Climate Hazard Exposure Matrix for WASH Infrastructure

WASH Asset Type	Hazards Exposed To	Highly Exposed Locations	Impacts
Protected Springs	Drought, landslides	Kipkelion West, Bureti Highlands	Drying, silting, overflow
Gravity-fed schemes	Floods, landslides	Londiani, Belgut escarpments	Pipe bursts, turbidity, and access disruption
Boreholes (shallow)	Drought, rising temperatures	Kipkelion East, Soin/Sigowet	Dry wells, saline intrusion, and low recharge
Open wells and pans	Evaporation, contamination	Soliat, Tendeno	Unusable during dry months, waterborne disease risk
Latrines (ECDEs, markets)	Flooding, erosion	Kamasian, Brooke, Chepseon	Collapse, overflow, access difficulty
Rainwater harvesting tanks	Rainfall irregularity, high temperatures	Schools in Bureti, Kipkelion East	Underperformance, rapid depletion

Kericho's overall WASH vulnerability emerges from the intersection of:

- Hazards (e.g., erratic rainfall, droughts, floods),
- Exposure (e.g., location of infrastructure, unprotected catchments),
- Sensitivity (e.g., low coping capacity in ECDEs and community-managed schemes).

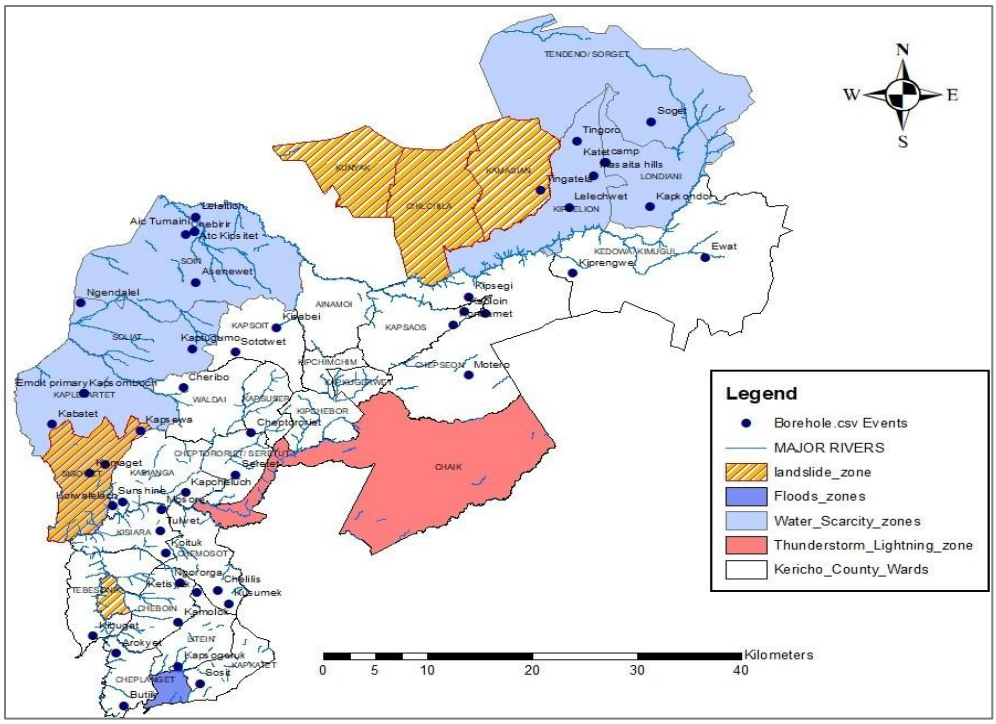

Figure 2.8: WASH Climate Risk Zones – Hazard Intensity, Water Resources and Boreholes Exposure

High-risk wards include:

- Flood-prone zones: Soin/Sigowet lowlands, Kipkelion riverbanks
- Drought-stressed zones: Kipkelion East, Soliat, Kamasian
- Rapid-growth urban zones with infrastructure overload: Kapsoit, Kipchimchim, Brooke

Strategic Implications

- Climate-resilient WASH must be prioritized in ward-level planning (under FLLoCA).
- Design standards should factor elevation, runoff, and rainfall intensity projections.
- Exposure mapping should inform investment siting for gravity systems, boreholes, and institutional latrines.
- Expand use of solar pumping, water-efficient fixtures, and green infrastructure (e.g., bio-swales, infiltration ditches).

2.7 Water Resources Development

The specific objectives for water resources development include the following:

a) Preservation of the reserve, international obligation, and inter-basin water transfer to meet basic water needs and protect the water environment.
b) Improved water and sanitation are available and accessible to all.
c) Irrigation development is undertaken to the maximum extent possible within available water resources, in line with the national target, to increase agricultural production.
d) Livestock, wildlife, and inland fisheries are provided with sufficient water.
e) Hydropower development is undertaken to its maximum potential and as one component of multipurpose projects for the effective use of water resources.

f) Domestic and industrial water supply is ensured for a probable 10-year drought, and irrigation water supply for a probable 5-year drought.

2.7.1 National water resources development targets

The NWMP 2030 proposes the following strategies to enhance the development of the water resources in LVSBA. These strategies are anchored on balancing the available water resources and future demand.

- LVBA is abundant in surface water; thus, it needs to maximise its exploitation.
- The inter-basin water transfer facility from Itare and Londiani dams to the neighbouring Rift Valley Basin Area (RVBA) is to be developed to supply domestic water to the Greater Nakuru area. Heavyly concentrated domestic water demands are expected in 2030, but both the surface and groundwater resources are insufficient.
- Dam development is to be promoted over the catchment area to satisfy large future water demands, such as domestic, industrial, and irrigation water demands in the entire basin area. Candidates of the dam development for the maximum surface water exploitation include, in principle: i) dams proposed by the NWMP (1992), and ii) dams under the design and/or planning stage by the Government, including the Kenya Vision 2030 flagship projects.
- Small dams and/or water pans are to be constructed in small rivers throughout the catchment area for small and scattered demands including rural domestic, livestock, small scale irrigation, wildlife and inland fisheries water supply purposes at locations where suitable dam sites are not possible for large dams but where surface water is available.
- Groundwater usage through boreholes is considered mainly for domestic, industrial, and irrigation water demands where surface water is not available.

Table 2.17: Sub-basin yields

Name of the Dam	Sub Basin Code	Yields (m3/s)	Capacity (MCM)	Purpose
Itare	1JA	0.0	20	Domestic and Industrial(Litein and RVBA)
Londiani	1GC	2.6	25	Domestic and Industrial(Londian, Kipkelion & RVBA)
Bosto			30	
Nyando-Koru-Soin	1GD1	4.6	86	Irrigation(3000ha), Domestic and Industrial(Muhoroni, Awasi, Ahero, Kisumu), Flood control,

Source: NWMP 2030 report, page 186

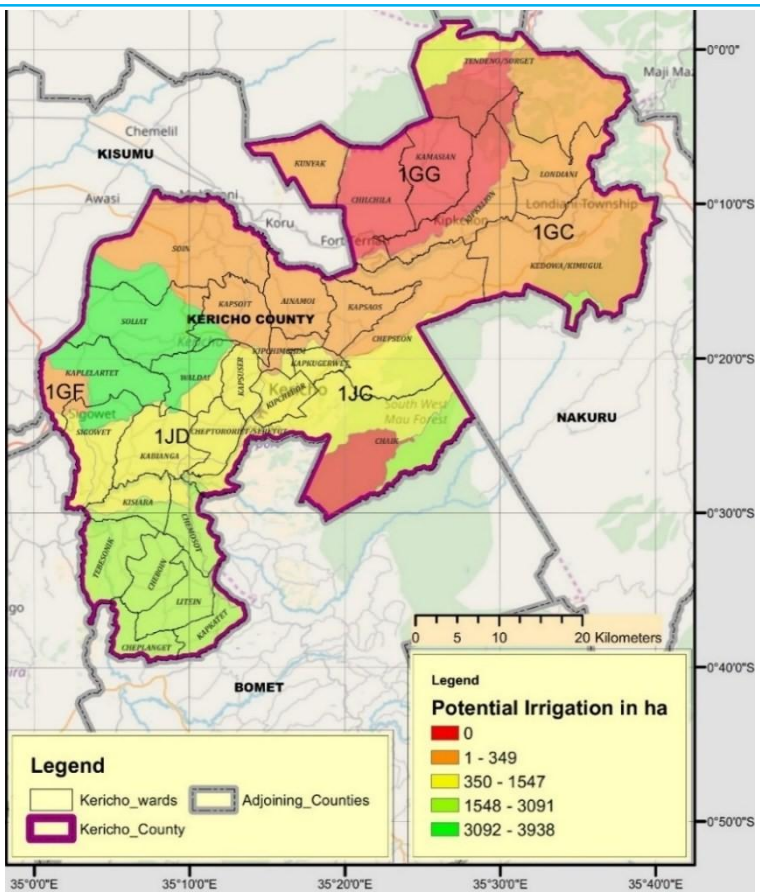

Figure 2.9 Potential of irrigation in hectares

2.8 Water Resource Management

The county's water resources should be properly managed for the following reasons.

a) All water resources are managed, regulated, and conserved effectively and efficiently by involving the stakeholders, guaranteeing sustained access to water and equitable allocation of water while ensuring environmental sustainability.
b) Human and economic damages by flood and drought are minimized to protect people's lives and properties.
c) The impacts on the natural environment from water resources development activities are minimized for the protection of the natural environment.
d) The national water policy strengthens the Organizational and institutional capacity for water resources management at the national and regional levels.

2.8.1 Water availability

The available water resources are defined as the total of annual surface water runoff and the sustainable yield of groundwater resources. It is the maximum available water resources for development. The available water resources of the 12 sub-basin areas are given below. For water resource determination, the following definitions formed the basis of establishing the available water;

"Flood flow" is defined as any flow that exceeds the Q80 flow value, and "normal flow" is defined as any flow that is less than the Q80 flow value[3].

The Q_{80} flow value is the flow value that is equaled or exceeded eighty percent of the time[4]. Derived from a naturalized flow duration curve, preferably derived from daily flows.

Q_{95}..... Means the daily flow in the river that is likely to be equaled or exceeded 95% of the time, as deduced from a daily flow duration curve.

2.8.2 Sustainable annual Renewable water

Table 2.18: Annual renewable water resource

SURFACE WATER			TOTALS			GROUNDWATER
River name	Flows	Discharge MCM/Year	Total Discharge MCM/Year		Sub-basin Area (km^2)	Yields in MCM/year
Nyando	Normal flow	59.313	Normal Flows	234.688	1,484	54
	Flood flow	244.31				
Sondu	Normal flow	175.375	Flood flows	823.387	2,632	
	Flood flow	579.077				

2.9 Water Use in Kericho County

Water use in Kericho County is characterized by high spatial, institutional, and socio-economic diversity. Patterns vary across urban and rural zones, formal and informal systems, and public versus private abstraction regimes. According to data triangulated from the National Water Master Plan (NWMP 2030), Kericho Water Master Plan, the 2023 WASH Baseline Survey, and WRA abstraction permit records, seven key use categories are recognized under permitted use: irrigation, domestic, livestock, hydropower, industrial, public supply, and institutional. Informal and community-managed systems account for a significant proportion of actual usage, particularly in rural and underserved areas.

Permitted abstraction data provided by WRA shows the following status as of 2023:

Table 2.19: Permitted Water Use by Category (Formal)

Use Category	No. of Permits	Total Abstraction (m^3/day)	Description
Irrigation	33	3,785.98 (Normal) / 4,585.28 (Flood)	Tea estates dominate, especially in Brooke and Kapsoit
Domestic	121	9,167.0	Includes small-scale piped schemes and private boreholes; multiple permits are often required per user.
Livestock	2	6.0	Under-reported; most are unregulated
Hydropower (Energy)	25	2,025.63 (Normal) / 3,913.24 (Flood)	One user may hold multiple permits, primarily private mini-hydro
Industrial	29	3,344.57 (Normal) / 4,229.02 (Flood)	Tea processing leads; many permits lack recent usage updates
Public Water Supply	4	1,950.00 (Normal) / 2,500.00 (Flood)	Includes KEWASCO and rural bulk intakes

[3] *Water Resources Management Rules section 49(1)*
[4] *Water Resources Management Rules section 49(2)*

Source: NWMP 2030, WRA Permit Database (2023)

2.9.1 Current Water Abstraction and Use Patterns

Water abstraction and utilization in Kericho County exhibit significant variation by source type, geographical area, infrastructure level, and socio-economic context. Surface water remains the predominant formal source for piped schemes—especially in urban centers and tea estates—while groundwater is increasingly relied upon for health facilities, institutions, and highland communities. Rainwater harvesting remains underutilized despite the county's favorable rainfall regime, and informal water sources, including unregistered boreholes and springs, serve a large proportion of rural and peri-urban populations. Abstraction pressures are rising unevenly, with low metering, weak enforcement, and infrastructure inefficiencies driving seasonal shortages, water quality deterioration, and social disparities, particularly in underserved wards.

Table 2.20: Overview of Water Abstraction and Use Patterns in Kericho County

Source Type	Key Uses	Geographic Focus	Infrastructure Characteristics	Challenges / Risks
Surface Water	Urban water supply (KEWASCO), rural gravity-fed schemes, tea factories	Urban centers (Kericho Town), Belgut, Kipkelion West	Intakes from rivers: Kipsonoi, Chemosit, Timbilil, Chepkositonik, Yurith	- Seasonal low flows - Unmetered abstractions - Pollution from settlements
Groundwater	Health facilities, ECDEs, schools, tea estates, and rural households	Kipkelion East, Soin/Sigowet, Ainamoi, Londiani	410+ boreholes (mostly shallow), few with solar/electrified pumps	- High fluoride (Londiani) - Salinity risks (Soin) - Unregulated abstractions
Rainwater Harvesting	Schools, households, and community storage for emergencies	Belgut, Bureti highlands; limited in Kipkelion/Soin	Rooftop systems (<5,000 L), rain barrels, ferrocement tanks	- Poor adoption in public institutions - Contamination risk without filtration
Informal Sources	Domestic use in unserved wards, livestock, and vending points	Rural areas of Soin, Kipkelion East, tea zones (Brooke, Tebesonik)	Unregistered springs, community-managed boreholes, shallow wells	- Lack of maintenance - No WRA oversight - Over-reliance on vendors
Community Projects	Emergency supply, off-grid areas (e.g., Sogowet Spring)	Remote and hilly zones in Sigowet, Kipkelion East	Donor-funded spring protection, shared tanks, gravity-fed community intakes	- Governance gaps - Declining spring yield - Limited funding for O&M
Vendor Supply	Water kiosks, cart vendors for households, schools, and SMEs	Urban fringes (e.g., Kapsoit, Brooke markets)	Vendor carts, private tanks, and KEWASCO resale from kiosks	- High unit costs - No pricing regulation - Vulnerability during rationing
Institutional Permits	Industry (tea processing), hydropower, private sector farms	Kimugu corridor, Brooke estates, industrial zones	Direct abstraction (river or borehole), permit-controlled by WRA	- Limited real-time monitoring - Potential over-abstraction in dry seasons

Source: Kericho Water Master Plan (2018), WRA Permits Database (2023), WASH Baseline (2023), Stakeholder Consultations (2024)

2.9.2 Sectoral Water Demand and Usage Trends

Understanding the distribution of water demand across economic and social sectors is essential for targeted infrastructure planning, equitable service delivery, and sustainable resource allocation.

The table below provides a breakdown of water use by key sectors in Kericho County, including households, institutions, industry, agriculture, and small enterprises. The share of each sector's overall water use is estimated and contextualized, along with typical water sources and operational notes, based on stakeholder consultations, field observations, and data from the Kericho Water Master Plan and the 2023 WASH Baseline. This table helps identify priority areas for investment and risk mitigation.

Table 2.21: Sectoral Water Demand and Use Trends in Kericho County

Sector/Use Category	Estimated Share of Use (%)	Typical Source(s)	Description
Domestic (Households)	55%	Boreholes, springs, piped schemes	Mixed systems; high vendor reliance in urban low-income zones
Institutions (Schools, HCFs)	12%	Boreholes, rainwater, and piped	47% have irregular or unsafe access (WASH Baseline, 2023)
Industry/Tea Processing	18%	River intakes, boreholes	High abstraction in Brooke, Kimugu, Kiptere
Livestock & Irrigation	10%	Springs, canals, shallow wells	Unregulated, high seasonal demand in Soin and Kipkelion
Commercial & SMEs	5%	Piped (KEWASCO) water vendors	Car washes, eateries, and food kiosks are vulnerable to rationing

Sources: Kericho Master Plan (2018), Stakeholder Consultations (2024), WASH Baseline (2023)

2.9.3 Challenges in Regulation and Monitoring

The table below highlights some of the sector challenges in regulation and monitoring.

Table 2.22: Challenges in Regulation and Monitoring

Challenge Area	Observed Issue
Regulation of community schemes	Most are not registered and operate outside the WRA framework.
Borehole tracking	No real-time registry; many abstractions below permit threshold
Vendor pricing & equity	No oversight on vendor pricing in underserved zones
Gender and age disaggregation	Data is lacking in most WRA abstraction records and the CWSSIP registry.

Strategic Implications and Recommendations

- Formalize abstraction permits for informal schemes and strengthen WRUA-led water monitoring.
- Expand groundwater monitoring and recharge mapping, particularly in areas with high fluoride and saline concentrations.
- Promote rainwater harvesting and solar-powered boreholes for equity-focused school and HCF supply.
- Enhance WASH targeting using disaggregated data on gender, poverty, and vulnerability.
- Scale up pro-poor subsidy mechanisms, especially targeting households in vendor-dependent urban centers and female-headed households.

2.10 Gender Analysis in Water Access and Use

2.10.1 Gendered Patterns in Water Access

Water access in Kericho County is deeply influenced by gender, with women and girls bearing a disproportionate burden in water collection, management, and decision-making. A 2023 triangulation of WASH Baseline Survey data, county social protection reports, and stakeholder interviews reveals that:

- Female-headed households (FHHs), which account for an estimated 28% of Kericho's total households, are significantly more reliant on non-piped, informal, and vendor-based water sources.
- In informal settlements of Ainamoi, Brooke, and Kapsoit, over 61% of FHHs rely on water vendors, compared to only 34% of male-headed households (MHHs), who are more likely to have piped or borehole access.
- In rural areas such as Soin/Sigowet and Kipkelion East, over 70% of FHHs depend on unprotected springs or shared boreholes, requiring an average collection time of 45–90 minutes daily, a factor strongly linked to reduced household productivity and increased school absenteeism for girls.

The table below provides the disaggregated comparison

Table 2.23: Disaggregated Comparison

Household Type	Primary Water Source	Average Daily Water Collection Time	% Relying on Vendors	% with Private Piped Access
Female-Headed Households	Springs, vendors, shared boreholes	55–90 minutes	61%	18%
Male-Headed Households	Piped systems, private boreholes	15–40 minutes	34%	41%

Source: WASH Baseline (2023), County Gender Department, KIIs (2024)

2.10.2 Implications for Equity and Investment Planning

- Infrastructure placement should prioritize areas with high FHH density and informal vendor reliance, especially in peri-urban markets and rural hillsides.
- Design of public standpipes and communal tanks must consider accessibility for older women and child-headed households.
- WASH programs should be integrated with women's economic empowerment, including targeted subsidies, self-help borehole groups, and water governance training for women.

2.10.3 Water Supply Services Coverage and Gaps

2.10.4 Status of Water Supply Infrastructure (Urban vs Rural)

Kericho County's water supply infrastructure consists of piped water systems, boreholes, protected springs, rainwater harvesting installations, and surface water abstraction points. However, the infrastructure coverage and service quality differ significantly between urban and rural areas.

- Urban Areas: The urban centers, including Kericho Town, Litein, Londiani, and Kipkelion, are mainly served by piped water systems operated by KEWASCO. These systems source water primarily from surface sources, such as the rivers Kipsonoi and Timbilil, complemented by groundwater boreholes.
- Rural Areas: In the rural sub-counties, reliance on protected springs, shallow wells, boreholes, and roof catchment systems is predominant. Some communities are served by small-scale piped water systems, many of which suffer from intermittent supply and aging infrastructure.

Table 2.24: Water Supply Infrastructure Typology (Urban vs. Rural)

Area Type	Primary Infrastructure	Main Sources	Service Characteristics
Urban	Piped water networks (gravity and pumped), public standpipes, and boreholes	Surface water (rivers), boreholes	Higher coverage but intermittent supply in some areas
Rural	Boreholes, protected springs, rainwater harvesting, and community piped systems.	Groundwater, rainwater, surface water	Low-density, dispersed coverage; seasonal variability

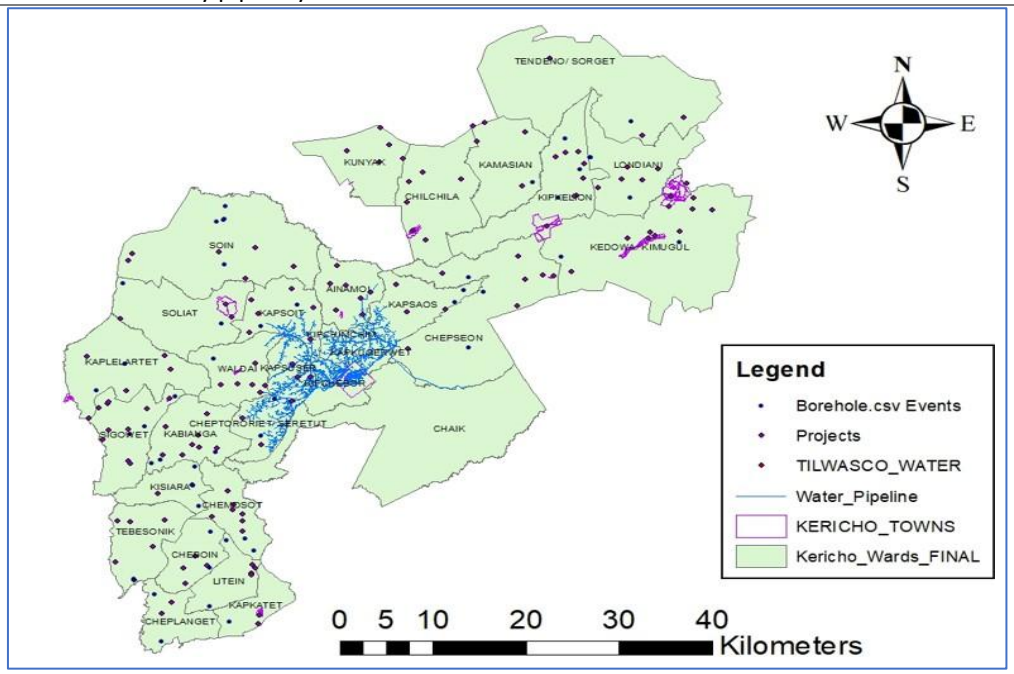

Figure 2.10: Kericho County Existing Water Infrastructure

2.10.5 Overview of Water Supply Systems, Service Levels, and Water Quality

There are approximately 34 piped schemes managed by KEWASCO and community groups across Kericho County. Key urban water schemes include:

- Kimugu Water Supply (under expansion)
- Kusumek Water Supply
- Chepseon Water Supply System

Rural areas have smaller community-operated systems and borehole supply projects, many of which operate without metered billing. According to the WASH Service Coverage (County) Sheet (2025), the proportion of the county population with access to at least basic water supply services is estimated at:

- Urban areas: 73%
- Rural areas: 61%

However, the proportion accessing safely managed drinking water services (improved source, available when needed, and free from contamination) is significantly lower:

- Urban: 42%
- Rural: 28%

Water Quality and Safety Concerns

- Surface water sources often require intensive treatment to meet potable standards. In rural areas, about 44% of households rely on untreated water sources
- Groundwater quality is generally acceptable, though pockets of fluoride and iron contamination have been reported, particularly in Londiani and Soin/Sigowet.
- Water quality surveillance coverage remains low, particularly for community-managed schemes.
- Urban piped water generally meets WASREB quality standards, but post-meter contamination occurs in informal networks.
- Rural sources face contamination risks from:
    - Open defecation and pit latrines near springs;
    - Animal intrusion at unprotected wells;
    - Lack of household water treatment practices;
- Rainwater systems often lack first-flush systems and proper gutter filtration.

Only ~32% of households reported treating water before use, with boiling being the most common method, followed by using chlorine tablets where available (WASH Baseline 2023).

2.10.6 Infrastructure Gaps and Capacity Constraints

Despite efforts to expand coverage, major infrastructure gaps and operational constraints persist:

Table 2.25: Infrastructure Gaps and Capacity Constraints

Key Gaps/Constraints	Observations
Inadequate storage capacity	Many schemes lack sufficient reservoirs to maintain a reliable supply during peak demand and dry seasons.
Aging distribution networks	Urban schemes such as Kericho Town experience high levels of non-revenue water (over 35%) due to leakages, as reported in the WASREB Impact Report-16.
Incomplete water treatment facilities	Some community piped systems operate without proper treatment plants.
Limited coverage in emerging settlements	New peri-urban areas lack formal water connections, forcing reliance on vendors and unsafe sources.
Financial sustainability challenges	Rural schemes often depend on voluntary community management with limited ability to maintain systems.

2.10.7 Ongoing Projects Summary

The Table below provides a snapshot of key ongoing and recently completed water projects in Kericho County, outlining their scope, cost, and implementation status.

Table 2.26: Major Ongoing Water Supply Projects (2023–2025)

Project Name	Location	Status	Estimated Cost (KES M)	Expected Beneficiaries
Chemosit-Kipkelion Gravity Scheme	Kipkelion East/West	Ongoing	180	35,000
Londiani Urban Water Expansion	Londiani	Completed	95	15,000
Solarization of Institutional Boreholes	Belgut, Ainamoi	Procurement	68	12,000
Spring Protection & Distribution Clusters	Soin/Sigowet	Ongoing	40	8,500

Source: Department of Water Infrastructure Tracker, April 2025.

2.10.8 Social and Gender-Disaggregated Water Supply Access

Access to water services in Kericho is highly unequal across social and gender dimensions:

- Rural households headed by women are less likely to have access to improved water sources compared to male-headed households
- Persons with disabilities (PWDs) face physical barriers accessing communal water points, particularly in markets and public facilities
- Poorer households, especially in informal settlements of Londiani, Kapkatet, and Litein, are forced to rely on unsafe or vendor-supplied water at high costs.

Table 2.27: Socially and Gender-Disaggregated Water Access in Kericho County

Category	Access to Improved Water (%)	Key Challenges
Female-headed households	58%	Longer distances to water points, safety risks
Male-headed households	65%	Better connection to piped systems
People with Disabilities (PWDs)	52%	Inaccessible infrastructure
Households in informal settlements	47%	High dependence on water vendors

Source: Kericho WASH Baseline Report (2023)

The burden of water collection disproportionately falls on women and girls, particularly in rural areas, consuming up to 2–3 hours per day in some sub-counties. This limits time for education, economic activities, and care work. Kericho County's water supply systems demonstrate significant progress in expanding access, especially in urban centers. However, substantial infrastructure gaps, operational inefficiencies, and social inequities persist. Addressing these challenges will require:

- Strategic investment in piped systems and treatment capacity.
- Prioritized extension of services to low-income and vulnerable groups.
- Focused initiatives to reduce non-revenue water and improve water quality monitoring.

2.10.9 Analysis of Population Access to Improved Water Services

Disparities in water access between urban and rural populations remain a major concern. Urban areas have better piped network coverage, while rural communities rely heavily on informal sources. Table 2.5 summarizes these disparities.

Table 2.28: Urban vs Rural Water Access Levels (2025)

Access Level	Urban (%)	Rural (%)	County Average (%)
Safely Managed	42.0	18.2	23.4
Basic Water Services	64.3	35.7	45.2
Limited/Unimproved	15.0	42.5	31.4
Surface Water/Open Source	3.0	12.8	9.1

Source: CWSSIP WASH Household Survey 2025; KDHS 2022 adjusted.

As of 2025, Kericho County records the following service levels in terms of drinking water access:

Table 2.29: Countywide Overview (County WASH Service Coverage)

Service Level	Countywide (%)	Urban Areas (%)	Rural Areas (%)
Safely Managed	31%	42%	28%
Basic Water Service	32%	31%	33%
Limited Water Service	13%	10%	15%
Unimproved Source	14%	10%	16%
Surface Water (direct use)	10%	7%	13%

Thus, 63% of the population accesses at least basic or safely managed drinking water services, higher in urban centers (73%) than rural areas (61%). Kericho County's access levels compared to national and global benchmarks:

Table 2.30: Benchmarking Against National and Global Standards

Indicator	Kericho (%)	Kenya National (%)	SDG 6 Target (%)
Improved water services	63%	73%	100%
Safely managed water services	31%	41%	100%

Although Kericho surpasses some rural counties nationally, it remains behind national averages and significantly below SDG 6 targets for 2030. Substantial differences in access exist between Kericho's sub-counties:

Table 2.31: Access to Improved Water Services by Sub-County

Sub-County	% Safely Managed	% Basic Service	% Limited/ Unimproved/ Surface Water	Key Observations
Ainamoi	45%	32%	23%	Highest urban coverage
Belgut	38%	31%	31%	Good natural source availability
Bureti	34%	28%	38%	Aging infrastructure challenges
Kipkelion West	28%	30%	42%	High seasonal variability
Kipkelion East	20%	33%	47%	Significant gaps, remote rural settlements
Soin/Sigowet	18%	29%	53%	Severely water-stressed

Insight: Soin/Sigowet and Kipkelion East are the most underserved, while Ainamoi (urban) enjoys the best coverage. Access to improved water services is strongly influenced by gender, household type, and income level:

Table 2.32: Access Levels by Socioeconomic and Gender Factors

Group	Access to Improved Water (%)	Challenges Faced
Female-headed households	58%	Longer distances, lower household income
Male-headed households	65%	Higher private connection ownership
People with Disabilities (PWDs)	52%	Physical barriers to water points
Households in Informal Settlements	47%	Reliance on unsafe vendors, affordability issues
Poorest Quintile Households	48%	Unimproved sources, seasonal scarcity
Wealthiest Quintile Households	75%	Access to piped, treated water

Deduction: The poorest and female-headed households bear the heaviest burden of unsafe water reliance, undermining gender equality and poverty reduction efforts.

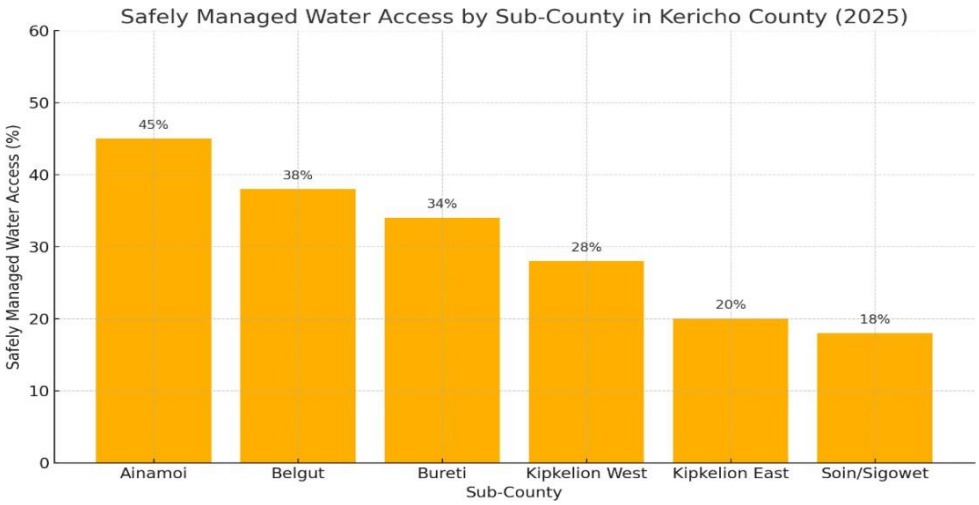

Figure 2.11: Graphical Presentation: Water Access by Sub-County

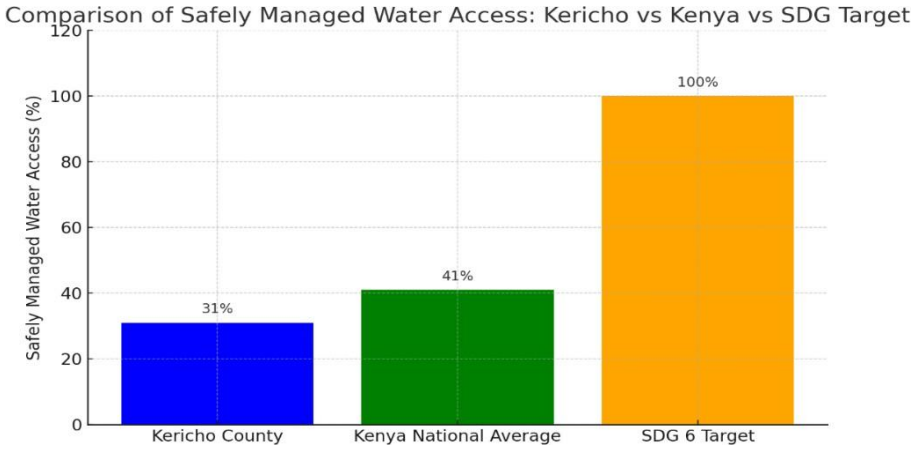

Figure 2.12: Safely Managed Water Access for Kericho County vs National Average vs SDG 6 Target

Trends, Risks, and Challenges

- Seasonal water scarcity in rural borehole-dependent areas.
- Infrastructure aging and under-maintenance, leading to high non-revenue water (over 35% in some systems.
- Affordability challenges — especially for water-vended households in informal settlements.
- Climate vulnerability — drought-induced supply interruptions projected to rise
- Gendered impacts — women and girls shoulder a disproportionate burden of water collection time.

To address these disparities and coverage gaps, Kericho County must prioritize:

- Expansion of climate-resilient piped schemes to underserved sub-counties (Soin/Sigowet, Kipkelion East).
- Subsidized or pro-poor models for connecting low-income households.
- Inclusive infrastructure designs (PWD-accessible water points).
- Strengthening water quality monitoring and community-based O&M mechanisms.

- Reducing seasonal vulnerability through enhanced rainwater harvesting and aquifer recharge projects.

2.10.10 Service Delivery Challenges, Operational Inefficiencies, and Climate Impacts in Kericho County Water Sector

Non-Revenue Water (NRW): Kericho County suffers from persistently high levels of Non-Revenue Water (NRW), particularly within the urban supply managed by KEWASCO. Key causes include Physical losses: aging pipelines, frequent bursts, and leaks; commercial losses: illegal connections, poor billing accuracy, tampering, incomplete metering, and weak asset maintenance practices.

- Current NRW Level: 48%, far above the WASREB recommended benchmark of ≤20%.

Impact: High NRW erodes KEWASCO's financial sustainability, reduces effective water availability, and forces costly overproduction to meet demand. Maintenance and Asset Management Issues:

- A significant proportion of water supply infrastructure, particularly distribution networks in Kericho Town, Litein, and Kipkelion, is beyond its economic life.
- Preventive maintenance practices are weak, leading to frequent system breakdowns and emergency repairs.
- Low metering ratio (82%) further complicates revenue assurance and leakage detection.

Impact: Poor maintenance reduces service reliability, water quality (due to contamination during pipe breaks), and customer trust.

Table 2.33: Operational Inefficiencies and Impact on Service Provision

Issue	Impact
High NRW	Loss of up to 50% of produced water; revenue leakage.
Low Operational Cost Coverage (OCCR = 81%)	Dependency on County Government subsidies.
Low Collection Efficiency (82%)	Cash flow constraints are affecting maintenance and expansion.
High Personnel Costs (58% of O&M)	Resource drain, affecting investment in critical infrastructure.

Result: Financial unsustainability, inability to fund improvements, low quality of service provision, and limited network expansion.

KEWASCO's PIAP and broader WSP best practices recommend the following solutions:

Table 2.34: Solutions for Reducing NRW and Improving Reliability

Intervention	Actions Planned/Needed
NRW Reduction Program	Sub-District Metered Areas (Sub-DMAs) installation; leakage audits; enforcement against illegal connections.
Asset Rehabilitation	Priority pipeline replacement, metering upgrades, and reservoir maintenance.
SCADA and ERP Systems	Real-time flow monitoring, improved billing accuracy, and customer data integrity.
Preventive Maintenance Programs	Regular maintenance schedules for pumps, tanks, and mains.
Staff Capacity Building	NRW management training, financial and technical skills upgrades.

The table below captures the key Water Service Providers in Kericho County:

Table 2.35: Existing Water Service Providers (WSPs) and Operational Efficiency

WSP	Area of Operation	Operational Challenges
KEWASCO	Kericho Town, Belgut, Bureti, Kipkelion, Soin/Sigowet	High NRW (48%), OCCR deficit (81%), aging networks, pending ERP rollout
Community Managed Rural Schemes	Rural villages, markets, institutions	Weak technical capacity, poor water quality surveillance, and limited financial sustainability

Observation: KEWASCO has a stronger institutional structure than rural community schemes, but both face significant efficiency challenges.

Challenges in Engaging Public and Private Water Service Providers:

- Public (KEWASCO):
  - Limited financing to upgrade and expand networks.
  - Bureaucratic delays in procurement and tariff approvals.
  - Resistance to institutional reforms (e.g., staff restructuring).
- Private Sector (Small-scale vendors, kiosks):
  - Unregulated pricing leading to exploitation of vulnerable consumers.
  - Poor water quality control and limited reliability during drought seasons.

Impact: Service inequality — poor and rural households are the most affected.

Areas for Strengthening Service Delivery Models

- Expand Pro-poor Targeted Subsidy Programs: Lower connection costs for low-income households.
- Accelerate ERP and SCADA Implementation: For real-time monitoring, billing, and asset tracking.
- Strengthen Public-Private Partnerships (PPPs), especially for rural supply and off-grid schemes.
- Restructure Staff and Reduce O&M Overheads: To align with WASREB benchmarks.
- Enhance Community Management Models: Training, regulatory support, O&M financing.

The increasing intensity and unpredictability of climate hazards have further compounded service delivery challenges:

Table 2.36: Climate-Related Disruptions to Service Delivery

Climate Hazard	Impact on Service Delivery	Vulnerable Areas
Droughts	Drying of springs, low borehole recharge, water rationing	Soin/Sigowet, Kipkelion East
Flash Floods	Pipe bursts, spring overflow, and contamination of storage	Londiani hills, Belgut escarpments
High Temperatures	Accelerated evaporation, demand surges, reduced reservoir storage	Bureti valleys, Ainamoi lowlands

Most rural systems do not include resilient design features such as elevated tanks, climate-optimized routing, or redundant infrastructure.

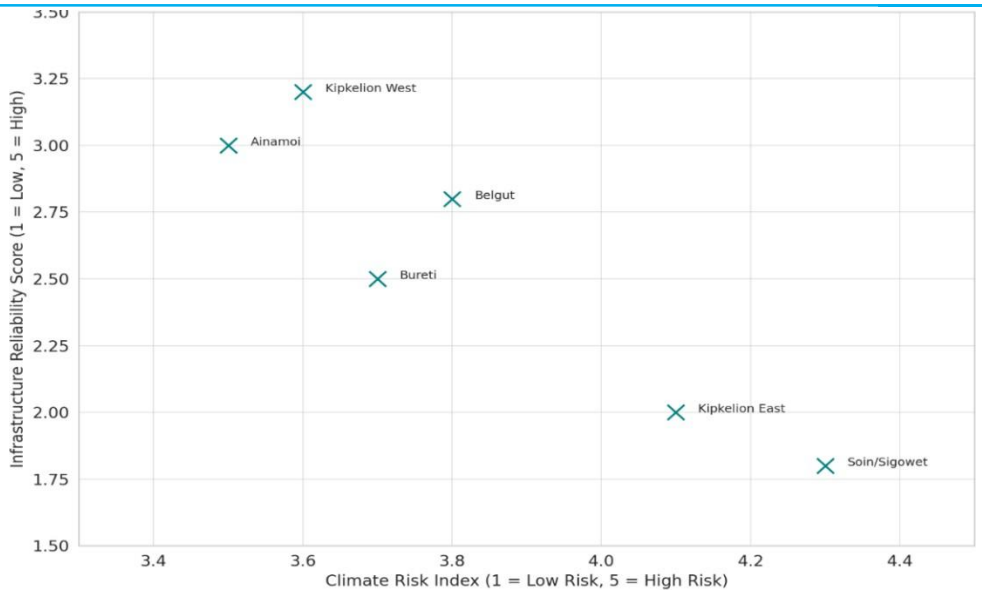

Figure 2.13: Climate Risk Vs Water Infrastructure Reliability – Kericho Sub-Counties

The above scatter plot illustrates the inverse relationship between climate vulnerability and infrastructure reliability. Sub-counties such as Soin/Sigowet and Kipkelion East experience high climate risks (e.g., droughts, floods) and also report low infrastructure reliability, making them urgent priorities for resilient WASH investments.

The following table captures the proposed Strategic Areas for Improvement

Table 2.37: Strategic Areas for Improvement

Area	Recommended Action
NRW Reduction	Pressure zone mapping, customer metering, and leak detection technology
Maintenance Systems	Asset register development, spare part kits, and rapid response teams
Climate Resilience	Elevate intakes, design overflow buffers, and solarize pumping stations.
Public-Private Collaboration	Licensing of vendors, tariff banding, and performance-based contracts for rural schemes
Capacity Building	Training for scheme managers, incentivized technician recruitment
Monitoring & Reporting	Mobile-based incident tracking, ward-level service audits

2.11 Sanitation Services Coverage and Service Gaps

As of 2025, sanitation access in Kericho County is characterized by very low safely managed services, a dominant reliance on limited sanitation, and lingering challenges of unimproved sanitation and open defecation. The table below shows that:

- Only 0.1% of the population accesses safely managed sanitation services.
- The majority (78.4%) rely on limited service, typically shared latrines of varying quality.
- Unimproved sanitation affects 15% of residents, mainly in rural and peri-urban areas.
- Open defecation, though low, persists among 2% of the population, predominantly in informal settlements and isolated rural areas.

Table 2.38: Sanitation Services Coverage and Service Gaps

Sanitation Service Level	2025 (%)
Safely managed	0.1%
Basic sanitation	4.5%
Limited service (shared sanitation)	78.4%
Unimproved sanitation (unimproved pit latrines, no facilities)	15.0%
Open defecation	2.0%

2.11.1 Analysis of Existing Sanitation Infrastructure and Service Options

Urban Areas (Kericho Municipality and Urban Centers):

- Sewerage System Coverage is extremely limited, serving less than 9% of the urban population.
- Septic tanks are prevalent in middle- to high-income households.
- Shared latrines dominate low-income settlements and peri-urban areas.

Rural Areas:

- Pit latrines (both improved and unimproved) are the dominant sanitation solution.
- Access to safely managed sanitation services is almost negligible (<1%).
- Emptying services for latrines and septic tanks are largely informal or non-existent.

Across Kericho, formal sewerage and regulated fecal sludge management (FSM) systems remain largely absent.

Table 2.23: Rural-Urban Disparities and Informal Settlement Challenges

Setting	**Main Sanitation Characteristics**
Urban Core (Kericho CBD)	Limited sewerage (central area), septic tanks in better-off neighborhoods, and widespread use of shared latrines in low-income zones.
Peri-Urban Settlements (Litein, Londiani)	Predominantly shared and unimproved pit latrines; sanitation services under severe stress.
Rural Areas	Improved pit latrines where possible; widespread shared and unimproved facilities; no FSM services.

Informal settlements that have grown rapidly due to climate-induced migration include:

- Londiani slums, Kipkelion informal markets, and Litein peripheries — driven by displacement from flood-prone areas (e.g., Kipsonoi River basin).
- These settlements exhibit: Heavy reliance on shared sanitation facilities and Poor sanitation hygiene practices due to overcrowding and inadequate FSM services.

Result: Increased public health risks — including cholera, diarrhea outbreaks, and hygiene-related gender-based violence.

Table 2.39: Social and Gender-Disaggregated Access to Sanitation

Group	Safely Managed (%)	Basic (%)	Limited (%)	Unimproved (%)	Open Defecation (%)	Key Challenges
Female-headed households	0.05%	3.5%	80%	14%	2.5%	Lower affordability and safety risks at shared facilities.
Male-headed households	0.2%	5.5%	77%	15%	2.0%	Slightly better access to basic sanitation.
Households with PWDs	0.0%	2.0%	82%	14%	2.0%	Accessibility barriers: lack of adapted latrines.
Informal settlement residents	0.0%	2.0%	86%	10%	2.0%	Severe overcrowding and poor hygiene environments.

Insight: Vulnerable groups — especially women, persons with disabilities (PWDs), and people with low incomes in informal settlements — suffer disproportionately from inadequate sanitation access. In terms of the gender and vulnerability dimensions, the following observations are made:

a) Women and girls face privacy and safety risks due to inadequate lighting, the absence of doors/locks, and distance from households.
b) Menstrual hygiene management (MHM) is especially constrained in households and schools with:
    - Shared latrines,
    - Lack of water and disposal facilities,
    - Cultural stigmas.
c) Female-headed households, elderly caregivers, and households with persons with disabilities face additional barriers, particularly:
    - Absence of accessible toilet designs (e.g., ramps, handrails),
    - Higher reliance on shared or unimproved facilities,
    - Increased vulnerability during floods and pit collapse events.

The following table summarizes the key Service Gaps

Table 2.40: Summary of Key Service Gaps

Gap Area	Details
FSM Infrastructure	No faecal sludge treatment plant; informal and unsafe sludge disposal
Latrine Quality	60–70% of pit latrines are unlined or without ventilation
Service in Markets/ECDEs	Inadequate sanitation blocks, poor maintenance, and limited MHM support
Climate Resilience	Latrines collapse or overflow during floods (esp. in Soliat, Soin)
Inclusion & Accessibility	Minimal inclusive design in household and institutional WASH infrastructure

Strategic Implications

- Develop and fund a county-wide FSM plan, including sanitation hubs and FSTPs in high-density zones.
- Expand WASH in Schools to include MHM and latrine upgrades in underserved wards.
- Promote climate-resilient sanitation designs in lowland, flood-prone, and erosion-prone areas.
- Invest in inclusive sanitation infrastructure, prioritizing older people, PWDs, and female-headed households.

Key Sanitation Challenges Identified

- Extremely low safely managed sanitation (only 0.1% countywide).
- Very high reliance on shared sanitation (78.4%).
- Persistent unimproved sanitation and pockets of open defecation.
- Inadequate FSM infrastructure to safely manage waste from pit latrines and septic tanks.
- Limited investment in sanitation for climate-induced informal settlements.
- Gender and social inequalities in access to safe, private, and dignified sanitation facilities.

Strategic Recommendations for Sanitation Service Improvement

Table 2.41: Strategic Recommendations for Sanitation Service Improvement

Priority Area	**Proposed Actions**
Expand sewerage networks	Extend coverage to peri-urban and high-density informal settlements.
Develop FSM Services	Establish decentralized FSTPs (Faecal Sludge Treatment Plants) for major towns.
Promote affordable latrine upgrades.	Implement sanitation micro-loans and support programs for low-income households.
Mainstream gender and disability inclusion	Enforce standards for PWD-accessible sanitation facilities.
Climate-resilient sanitation infrastructure	Promote flood-proof pit latrines and improve sanitation in flood-prone settlements.
Strengthen sanitation regulation	Enforce building codes and sanitation bylaws across rural and peri-urban zones.

2.11.2 Coverage of Public and Shared Sanitation Facilities, Including Market Centers and Informal Settlements

Public and shared sanitation facilities are critical in ensuring safe sanitation access for populations without household-level toilets, especially in market centers, schools, ECDEs, health facilities, and informal settlements. In Kericho County, access to such facilities is limited in coverage and quality, with existing infrastructure often poorly maintained and lacking inclusivity. The demand for well-managed public sanitation is growing, particularly in fast-expanding urban and peri-urban nodes such as Brooke, Kapsoit, Litein, Sondu, Kipchimchim, and Chepseon.

To quantify the extent of public sanitation infrastructure gaps in high-traffic areas, a facility needs assessment was conducted across key market centers in Kericho County. The figure below compares the number of existing sanitation blocks with the estimated minimum required to ensure adequate access, hygiene, and dignity for vendors, shoppers, and transit populations. The chart reveals significant shortfalls in markets such as Brooke, Chepseon, and Kapsoit, where demand far outpaces existing infrastructure. These findings reinforce the urgency of investing in public sanitation in economic hubs.

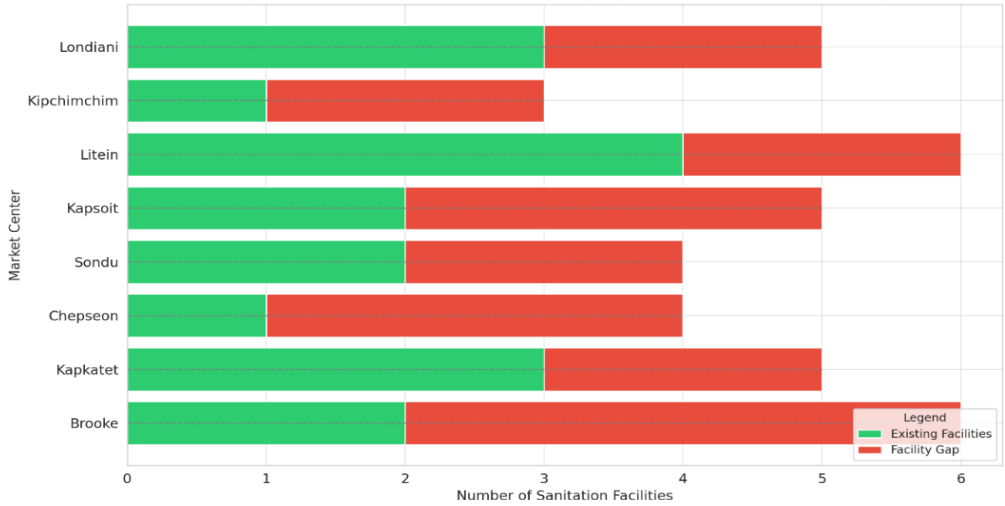

Figure 2.14: Public Sanitation Facility Gaps by Market Center – Kericho County

Availability and Adequacy of Public Sanitation Services

a) Market Centers and Trading Nodes

According to the 2023 WASH Baseline:

- Over 70% of market centers lacked formal sanitation blocks meeting public health or accessibility standards.
- Where available (e.g., in Kapkatet, Brooke, and Londiani), facilities are frequently locked, dysfunctional, or insufficient in number and gender segregation.
- Shared latrines in open-air markets are often without water, making them unusable during peak hours.

b) Informal Settlements

- Informal settlements, especially in Brooke and Kipchimchim, depend on makeshift shared pit latrines built by landlords or cooperatives.
- These latrines are:
  - Often overused, shared by more than 5 households per unit,
  - Built with non-durable materials,
  - Rarely emptied, leading to frequent overflow and unsanitary conditions.

c) Institutions (overview to be detailed in 2.3.3)

- Schools and ECDEs show relatively better public latrine coverage, but MHM compliance and functionality remain problematic.
- Health facilities face critical shortages of gender-segregated, accessible, and water-connected sanitation facilities.

Table 2.42: Infrastructure Gaps and Investment Needs

Facility Type	Key Gaps Identified	Priority Investment Areas
Market sanitation blocks	Too few per capita, dilapidated, no water, or handwashing	Brooke, Kapkatet, Chepseon, Sondu

Public latrines in towns	No inclusive (PWD-friendly) toilets, unsafe at night.	Kapsoit, Kipchimchim, Londiani
Shared facilities in slums	No FSM linkages, high user-to-facility ratio	Brooke Estates, Kipchimchim
ECDE centers (shared WASH)	Lack of age-appropriate cubicles, water storage, and cleaning stations	Soliat, Cheboin, Kamasian
Sanitation in bus stations	None in most transport hubs; heavy reliance on nearby shops	Kapkatet, Litein, Brooke, Kericho Town stages

These challenges lead to open defecation in peri-market areas, particularly in evening hours, and contribute to water point contamination during the rainy season.

Operation and Maintenance Modalities

a) Market and public sanitation facilities are managed under a mix of:
   - County government (markets),
   - Ward development committees,
   - Community-based organizations or informal caretaker groups.

b) Common O&M constraints include:
   - No budget allocations for routine cleaning or desludging;
   - No formal tariff system for public toilets—where charges exist, they are not reinvested in maintenance;
   - Poor community ownership of facilities viewed as "government responsibility";
   - Lack of training for caretakers and cleaning personnel.

Public sanitation services are not linked to the faecal sludge chain, resulting in manual emptying or latrine abandonment upon filling.

Strategic Recommendations

- Construct gender-segregated, climate-resilient sanitation blocks in all major markets and trading hubs.
- Institutionalize O&M frameworks through PPPs, local enterprise partnerships, or devolved ward sanitation boards.
- Link all public and shared facilities to formal FSM services, including pit latrine decommissioning and sludge evacuation.
- Introduce inclusive design guidelines for all new public facilities, ensuring access for PWDs, the elderly, and young children.
- Pilot solar lighting and water reuse systems in high-traffic market sanitation blocks.

2.11.3 Sanitation Challenges: Waste Management, Hygiene Practices, and Cultural Barriers

Despite gains in sanitation coverage across parts of Kericho County, the effectiveness and sustainability of services are constrained by entrenched behavioral practices, cultural norms, weak waste management systems, and increasing climate-related risks. These issues are more pronounced in rural zones, informal settlements, and public institutions with limited capacity for operation and maintenance.

Key Behavioral, Cultural, and Logistical Constraints

a) Behavioral Challenges and Low Latrine Uptake

- Open defecation, while reportedly low (<0.5% countywide), persists in remote areas of Soin/Sigowet and Kipkelion East, especially in the dry season when temporary structures collapse.
- Sharing of latrines among multiple households is common in low-income urban areas (e.g., Brooke, Kapsoit, Kipchimchim), resulting in overuse and poor maintenance.
- In some rural areas, cultural taboos discourage sharing latrines between:
    - Men and women,
    - Mothers-in-law and sons-in-law,
    - Children and adults.

b) Menstrual Hygiene Management (MHM) Gaps

- Inadequate private space, disposal mechanisms, and access to clean water in schools and ECDEs negatively affect girls' attendance and dignity.
- Cultural stigma around menstruation results in silent absenteeism and low reporting of MHM-related sanitation challenges.

c) Lack of Behavior Change Communication (BCC)

- Despite prior CLTS (Community-Led Total Sanitation) efforts, there is no structured, county-wide behavior change campaign targeting sanitation use, handwashing, or FSM.

d) Waste Management and Environmental Risks:

The county has a solid and liquid waste integration gap:

- There is no formal faecal sludge treatment facility in the county. Sludge from pit latrines and septic tanks is:
    - Emptied manually or by untrained workers,
    - Discharged into fields, rivers, or drainage channels (especially in Kapkatet and Litein).
- Solid waste is co-dumped with faecal waste, especially in informal urban markets and bus parks, compounding health and environmental risks.

The county experiences institutional deficiencies in waste management.

- Schools, ECDEs, and health centers often lack:
    - Designated disposal points for diapers and sanitary pads,
    - Trained personnel to manage infectious waste,
    - Incinerators or composting pits.

e) Climate Change Impacts on Sanitation Infrastructure

Kericho's sanitation systems are increasingly vulnerable to climate-induced disruptions, particularly in low-lying and erosion-prone wards:

Table 2.43: Climate Hazards and their Impact on Sanitation

Climate Hazard	Impact on Sanitation	High-Risk Areas
Flooding	Latrine collapse, flooding of unlined pits, contamination of nearby water points	Soliat, Kamasian, Brooke, Soin
Rising Water Tables	Increased risk of faecal seepage into groundwater and springs	Bureti Valley, Kipkelion East

Prolonged Drought	Abandonment of latrines due to cracking or reduced usability	Kipkelion East, Tendeno

Many pit latrines are shallow, unlined, and constructed in reactive soils, making them highly susceptible to collapse during heavy rains or high saturation periods. To better understand the spatial impact of climate variability on sanitation infrastructure, a climate risk overlay was developed, assessing wards against three primary hazards: flooding, rising water tables, and drought-related latrine degradation. As shown in the figure below, wards such as Soliat, Kamasian, and Brooke exhibit consistently high vulnerability across multiple risk dimensions. These climatic stresses increase the likelihood of latrine collapse, groundwater contamination, and latrine abandonment, particularly in areas with unlined pits or shallow water tables. The visualization underscores the need for targeted investment in climate-resilient sanitation technologies, especially in high-risk, low-income settlements.

- Flooding Risk (e.g., latrine overflow and collapse),
- Rising Water Tables (e.g., pit infiltration and groundwater contamination),
- Drought Impacts on Latrines (e.g., structural cracking, abandonment).

Wards such as Soliat, Kamasian, and Brooke show consistently high risk across multiple dimensions, emphasizing the need for climate-resilient sanitation infrastructure in these zones.

Table 2.44: Strategic Options for Improving Sanitation Uptake and Resilience

Challenge Area	Recommended Strategic Response
Behavior change and cultural norms	County-wide WASH behavior change campaign (targeting rural men, schools, landlords, and mothers)
FSM management	Establish faecal sludge transfer stations and pilot decentralized treatment hubs in key urban nodes.
MHM and school hygiene	Integrate water, disposal bins, and private stalls in school latrine blocks (focus on Soliat, Cheboin)
Design standards	Promote climate-resilient designs (lined pits, elevated slabs, twin pits in flood-prone zones)
Community engagement	Leverage WRUAs and CHVs in WASH education, hygiene promotion, and infrastructure O&M
Inclusive sanitation	Develop county guidelines on accessible WASH designs (ramp access, signage, grip bars, wider stalls)

Assessment of Fecal Sludge and Wastewater Management and Existing Treatment Facilities

Kericho County currently operates with minimal formal wastewater or faecal sludge treatment infrastructure. The sanitation service chain—from containment and collection to treatment and safe disposal—remains fragmented and heavily reliant on informal mechanisms. As a result, most faecal sludge and greywater are either unsafely dumped or allowed to seep into the environment, posing serious public health and environmental threats.

2.11.3.1 Current Status of FSM and Wastewater Management

The diagram below is Shit Flow Diagram (SFD), visualizing the fate of excreta in Kericho County, from generation to disposal. It provides a breakdown of how human waste is managed across the sanitation service chain, including containment, emptying, transport, treatment, and final disposal or reuse.

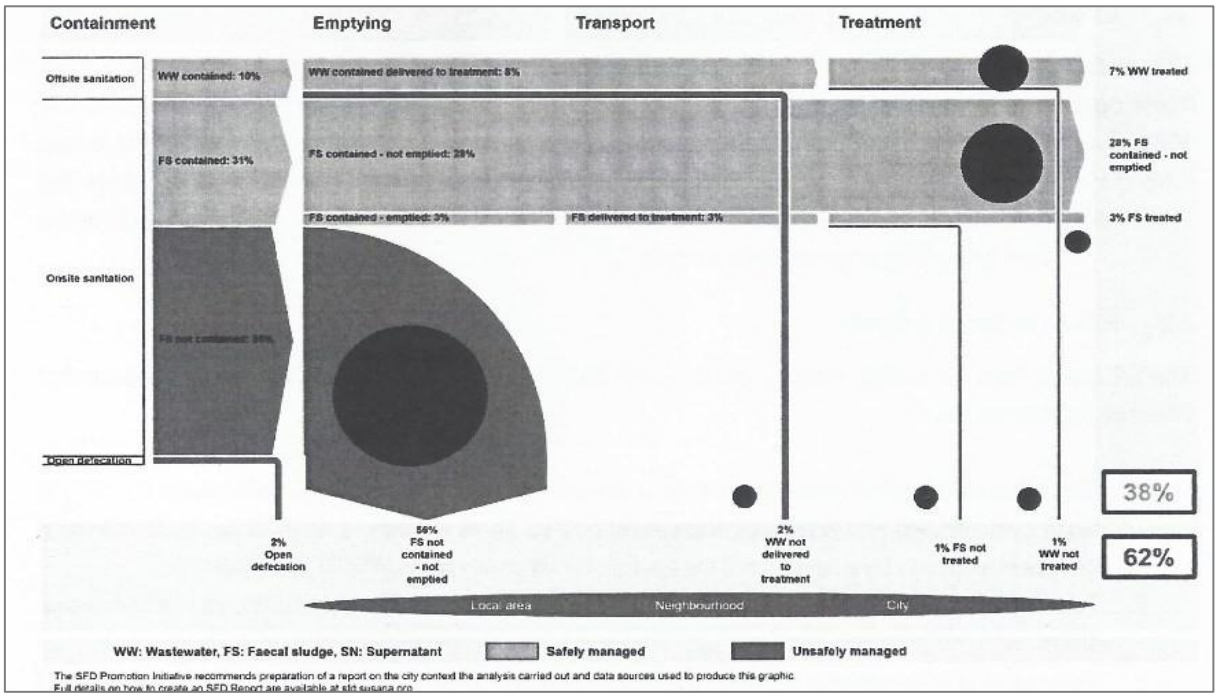

Figure 2.15: The Shitflow Diagram for Kericho County

a) Containment

- The majority of households (both urban and rural) use on-site sanitation systems, mainly pit latrines and septic tanks.
- Most pit latrines are unlined, unventilated, and not emptied, particularly in rural areas.
- In Kericho Town, a few estates and institutions are connected to septic tanks; however, less than 10% of urban households have any formal containment linked to a treatment facility.

b) Collection and Emptying

- Sludge collection is mostly manual or semi-mechanized, carried out by informal workers operating without protective gear or designated disposal points.
- There is no licensed private operator or registered vacuum tanker for regulated desludging services.
- In areas like Kapsoit, Brooke, and Chepseon, pit latrines are often abandoned when full, leading to the construction of new units in small compounds.

c) Treatment

- There is currently no operational faecal sludge treatment plant (FSTP) in Kericho County.
- KEWASCO manages the small sewerage network within Kericho Town, which connects to an outdated stabilization pond with limited functionality.
- There is no routine monitoring of efluent quality, and stormwater runoff is often mixed with wastewater.

d) Disposal and Reuse

- Faecal sludge, when emptied, is either:

- Dumped in open fields or forests (as reported in parts of Soliat and Bureti),
- Illegally discharged into drainage channels or rivers (notably near Brooke, Kipchimchim, and Litein).

- There are no sludge drying beds, composting facilities, or reuse-based treatment innovations currently in place.

2.11.4 Climate Risks Affecting FSM and Wastewater Systems

Table 2.7 and 2.8: ***Climate Change Hazards, Service Impacts, and Adaptation – Sanitation Infrastructure*** comprehensively captures the Climate Risks Affecting FSM and Wastewater Systems:

Many sanitation systems are inherently non-resilient, lacking flood protection, impermeable containment, or diversion mechanisms.

- Flood risk (e.g., pit overflow, septic tank breach),
- Groundwater contamination risk (due to rising water tables or unlined pits),
- Infrastructure failure (from poor design, low-quality construction, or lack of maintenance).

Soliat, Brooke, Kipchimchim, and Kamasian emerge as high-risk areas for multiple vulnerability types, underscoring the urgency for climate-smart and inclusive FSM solutions.

2.12 Access to WASH for Schools and Healthcare Facilities

To benchmark county sanitation performance against international norms, sanitation access was disaggregated using the WHO/UNICEF Joint Monitoring Programme (JMP) Sanitation Service Ladder. As shown in the figure below, most sub-counties in Kericho fall significantly below universal access targets. While basic sanitation accounts for a sizable share of coverage, especially in Kipkelion West and Ainamoi, there remains a heavy reliance on limited and unimproved sanitation, particularly in Soin/Sigowet and Kipkelion East. A small but non-negligible proportion of the population continues to practice open defecation, primarily in rural and informal zones. These trends underscore the need for both infrastructure investment and behavioral change strategies to transition communities up the sanitation ladder.

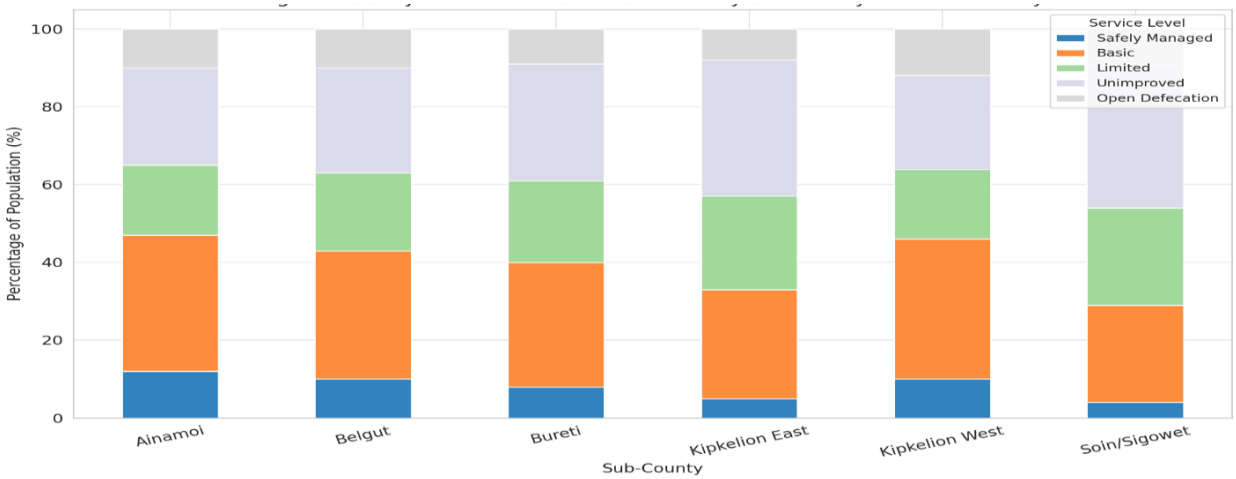

Figure 2.16: JMP Sanitation Service Ladder by Sub-County – Kericho County (Based on K-WASH Sanitation Status Dataset – Kericho County-2023)[5]

[5] *This figure illustrates the estimated distribution of sanitation service levels across Kericho's sub-counties using the JMP sanitation ladder framework (Safely Managed, Basic, Limited, Unimproved, and Open Defecation). The data is based on proportional modeling using trends from the 2023 K-WASH Sanitation Dataset, the Kericho County Water*

2.12.1 Status of Water Supply and Sanitation in Schools and Health Care Facilities

A comprehensive WASH audit conducted in 2023 across 630 schools and 81 healthcare facilities in Kericho County reveals that while progress has been made in some areas, critical service delivery and equity gaps persist, especially in sanitation, menstrual hygiene, inclusivity for people with disabilities (PWDs), and resilience to climate stress. This section provides a disaggregated summary of key WASH parameters, aligned with the JMP ladders and SDG 6.1 and 6.2 targets. The status of WASH in public schools across Kericho County was comprehensively assessed to evaluate infrastructure availability and service levels in line with JMP indicators. As shown in the table below, data were collected from 630 schools and Early Childhood Development and Education (ECDE) centres, covering aspects such as access to improved water supply, sanitation, hand hygiene facilities, menstrual hygiene, and inclusive access features. The table categorizes schools by service levels—basic, limited, and no service—for water, sanitation, and hygiene, allowing for a granular understanding of disparities in access. This information provides a crucial baseline for prioritizing investments in school water, sanitation, and hygiene (WASH) infrastructure and programming.

Table 2.45: WASH Access in Schools (Kericho County, 2023)

Indicator	Percentage of Schools (%)
Schools with Basic Water Access	74.44%
Schools with Piped Water	32.06%
Schools with No Water Source	4.60%
Schools with Basic Sanitation	80.95%
Schools with MHM Facilities (Water + Soap)	12.69%
Schools with PWD-Friendly Toilets	17.62%
Schools with Basic Hygiene (Handwashing + Soap)	24.76%

WASH services in healthcare facilities are essential to infection prevention and control (IPC) and the overall quality of care. The table below presents data from 177 surveyed health facilities across Kericho County, classified by service level (basic, limited, no service) for water, sanitation, and hygiene, in line with WHO/UNICEF JMP standards. The assessment captured facility type and level (e.g., dispensaries, health centres, sub-county hospitals), helping identify disparities in infrastructure, operational gaps, and areas vulnerable to climate-related disruptions. These insights are fundamental to ensuring safe and equitable healthcare environments, aligning with broader health system resilience goals.

Table 2.46: WASH Gaps in Health Facilities (Kericho County, 2023)

Indicator	Percentage of Facilities (%)
HCFs with Basic Hygiene at Points of Care	72.88%
HCFs without Any Hygiene Facilities	22.03%
HCFs with Functional MHM Facilities	21.59%

and Sanitation Masterplan (2022), KDHS 2022, and the 2023 WASH Baseline Assessment in Schools, Health Facilities and Markets. While not a direct product of a household JMP survey, it serves as a visual planning tool aligned to international benchmarks (SDG 6.2).

HCFs with PWD-Accessible Toilets	15.34%
Level 2 HCFs without MHM Amenities	85.43%

2.12.1.1 Water Access in Schools and ECDEs

- 74.44% of schools have basic water service, meaning an improved water source is available when needed, above the national average of 72%.
- Piped water connectivity remains low at 32.06% countywide. Bureti trails at 14.7%, while Ainamoi leads at 58.55%.
- 4.6% of schools reported having no water source at all, with wards like Tebesonik and Cheboin being the most affected.
- Rainwater harvesting systems are present in 73.81% of schools; however, only 68% of schools in Kipkelion West and Belgut have storage tanks, compared to 96.49% in Bureti.

2.12.1.2 Sanitation Access and Quality in Schools

- 80.95% of schools have basic sanitation, surpassing the national 50% benchmark.
- The predominant facility is the pit latrine with slab, though quality and safety vary.
- Toilet-pupil ratios are below the set national standards in multiple wards:

  For example: 1 door: 48 (girls) in Kunyak, and 1 door: 40 (boys) in Tendeno/Sorget, far above MoE standards (1 door: 25 for girls, 1 door: 30 + urinal for boys).

- ECDE sanitation is inadequate in many schools—young children share toilets with primary pupils.
- Only 17.62% of schools have PWD-accessible toilets, with obstacles including uneven terrain, lack of ramps, and narrow doors.

2.12.1.3 Menstrual Hygiene Management (MHM) in Schools

- Of 630 schools:
  - 58.14% lacked access to water and soap in a private space for MHM,
  - 29.17% had water but no soap,
  - Only 12.69% had water and soap in private spaces for girls.
- Only a few schools provide disposable sanitary pads or have covered bins and disposal mechanisms.
- MHM education is inconsistently delivered, and stigma remains prevalent in rural wards.

2.12.1.4 Hygiene in Schools

- 24.76% of schools meet JMP basic hygiene criteria (handwashing with soap and water),
- 47.94% have limited service, and
- 27.3% have no service at all.
- Handwashing facilities are most common in school yards (56.55%), followed by classrooms (41.37%) and toilets (34.1%).
- Soap availability is inconsistent, especially in lower-income ECDEs.

2.12.1.5 WASH Status in Health Care Facilities

a) Water Supply and Sanitation

- Toilet to patient ratios vary: most Level 2-4 hospitals meet IPC standards, but Sigowet SDH operates at 1:47, well above the IPC threshold of 1:20.
- Unlined pit latrines are still used in dispensaries like Ngainet and Itibet; some rely on bucket latrines (e.g., Kabianga Tea Farm).

b) Hygiene Services

- 72.88% of HCFs have functional hand hygiene facilities at points of care.
- Level 2 facilities lag:
  - Only 69.74% have such facilities,
  - 3.95% lack them entirely, compromising infection control.
- Waste management is poor: many lack incinerators, waste segregation systems, or protocols for sharps/infectious materials.

c) Menstrual Hygiene and Inclusivity

- 78.41% of health facilities countywide lack MHM amenities, especially Level 2s (85.43% lack MHM facilities).
- Only 15.34% of HCFs have toilets accessible to PWDs. Most rural facilities lack paved paths or latrines within the main premises, hindering dignity and safety.

2.12.1.6 Institutional WASH Operation & Maintenance (O&M) Gaps

- Many institutions lack:
  a) Dedicated WASH budgets or WASH committees,
  b) Trained janitors or procurement systems for soap, disinfectants, or repairs,
  c) Structured FSM or water quality monitoring protocols.
- Maintenance is often reactive and deferred until facilities are non-functional or unsafe.
- Cleaning frequency in schools is often weekly or less, due to water scarcity and a lack of personnel.

2.12.2 Hygiene Promotion Programs in Educational and Health Care Facilities

Hygiene promotion is a crucial component of effective WASH service delivery in schools and healthcare facilities. It contributes to infection prevention, improved learning outcomes, and the overall well-being of students, patients, and staff. In Kericho County, significant progress has been made in enhancing hygiene awareness and infrastructure, though notable gaps remain in implementation, accessibility, and inclusivity.

2.12.2.1 Current Health and Hygiene Awareness Initiatives

Kericho County has implemented various hygiene promotion programs in learning institutions and health facilities, often supported by development partners, NGOs, and the Ministry of Health and Education. According to the 2023 Kericho WASH Baseline Report, 78.4% of schools had some form of health or hygiene awareness activities in place. These initiatives primarily focused on hand hygiene, latrine use, menstrual hygiene management (MHM), and general cleanliness campaigns. Healthcare facilities,

particularly Levels 3 and 4, also reported having IPC (Infection Prevention and Control) committees responsible for training and supervision of hygiene practices at points of care.

The presence of WASH Clubs in schools, especially in Belgut and Bureti sub-counties, has enhanced student-led initiatives promoting regular handwashing, latrine maintenance, and clean environment campaigns. However, only 51% of schools had functional WASH Clubs with regular activities, and just 43% had designated staff trained in hygiene promotion.

2.12.2.2 Potential Areas for Improvement and Expansion

Despite progress, the hygiene promotion landscape in Kericho is unevenly developed. In ECDE centers and smaller health facilities (Levels 1 and 2), structured hygiene programs are largely absent. Key areas requiring urgent attention include:

- Integration of climate-resilient hygiene messaging: Only 39% of surveyed institutions included climate change resilience messaging (e.g., water conservation, drought hygiene practices).
- Menstrual hygiene support: While 63% of schools had some MHM education, only 35% provided adequate MHM materials and disposal options.
- Hand hygiene infrastructure: The county average for schools with handwashing stations was 57.9%, with wide sub-county disparities.
- Disability-inclusive hygiene promotion: Most facilities lacked adaptive messaging or infrastructure for learners and patients with visual, mobility, or cognitive impairments.

2.12.2.3 Assessment of Climate-Adaptive and Inclusive WASH Infrastructure

Many hygiene promotion programs are not yet aligned with climate-adaptive approaches. Water scarcity during dry spells often compromises hygiene, particularly in rural schools where only 42% had reliable year-round water sources. In health centers, lack of backup storage and irregular water supply severely affect hygiene compliance, especially during disease outbreaks or water-related emergencies. The lack of dedicated funding lines in institutional budgets for hygiene-related consumables (e.g., soap, menstrual pads, gloves) further undermines sustainability. Moreover, training programs for teachers and health workers remain ad hoc, often donor-dependent, and not integrated into professional development frameworks. The specific recommendations for hygiene promotion programs include the following:

- Institutionalize hygiene promotion through the County Health and Education departments, with dedicated budgets and M&E indicators.
- Develop and disseminate age-appropriate, gender-responsive, and disability-inclusive hygiene training toolkits.
- Scale up WASH Clubs in all public schools and align them with county-wide health campaigns.
- Prioritize MHM in school and HCF WASH strategies, including provision of disposal bins, pad-changing rooms, and awareness training.
- Expand climate-resilient water, sanitation, and hygiene (WASH) infrastructure to ensure year-round access to water for hygiene practices.

2.12.2.4 Menstrual Hygiene Management (MHM)

Menstrual Hygiene Management (MHM) remains a critical yet under-addressed component of Water, Sanitation, and Hygiene (WASH) programming in Kericho County. Inadequate access to sanitary materials, water, safe and private changing spaces, and culturally sensitive hygiene education continues to affect the health, dignity, and school attendance of adolescent girls and female patients. This section presents a

situational analysis of MHM practices in institutions, identifies key barriers, and outlines opportunities for improvement.

2.12.2.5 Status of MHM Services in Schools

According to the 2023 Kericho WASH Baseline:

- 58.14% of schools lacked both water and soap in private spaces for MHM.
- 29.17% had water but no soap, and only 12.69% of schools provided both water and soap in designated, private areas for menstrual hygiene.
- Most girls reported challenges related to privacy, inadequate disposal bins, and lack of consistent sanitary pad availability, especially in ECDEs and rural wards like Soliat, Tendeno, and Cheboin.
- Cultural stigma and the absence of trained female teachers or WASH champions contributed to silent absenteeism and poor health outcomes.

Toilet Infrastructure for MHM in Schools:

- In many schools, girls' toilets lacked doors, locks, or gender-specific signage, further compromising privacy.
- Dedicated MHM spaces—such as changing rooms or resting areas—were nonexistent in over 90% of schools assessed.

2.12.2.6 MHM in Health Care Facilities

MHM infrastructure and service provision in healthcare facilities also remain weak:

- 78.41% of facilities had no functional MHM facility or provision for menstrual hygiene services, particularly in Levels 2 and 3 facilities.
- Only 21.59% of facilities had functioning MHM infrastructure, and these were primarily at the sub-county hospital or mission hospital level.
- Most HCFs lacked disposal bins, incinerators, or designated waste collection for menstrual materials, posing health and environmental hazards.

2.12.2.7 Cultural and Knowledge Barriers

- Focus group discussions with adolescent girls and CHVs indicated that cultural silence and shame around menstruation remain prevalent in both school and community settings.
- Some girls were still taught to stay home during menstruation, especially in Kamasian, Soin, and parts of Kipkelion East, due to a lack of facilities or materials.
- Male teachers' discomfort in addressing MHM topics limits opportunities for integrated education.

2.12.2.8 Key Gaps in MHM Programming

Table 2.47: The Key Gaps in MHM Programming

MHM Challenge Area	Observed Issues
Infrastructure	Lack of private changing rooms, water,+ soap availability, and disposal facilities
Supplies	Irregular provision of sanitary pads or reusable options in schools and HCFs
Education	Absence of a structured MHM curriculum and trained staff
Policy Integration	No formal integration of MHM in school or HCF WASH budgets or work plans
Waste Management	Disposal is often mixed with general waste or dumped in latrines or open spaces.

2.12.2.9 Opportunities for Strengthening MHM

- Integrate MHM explicitly into School Health Policies, WASH budgets, and routine health inspections.
- Construct or retrofit girl-friendly toilets with changing rooms, locks, water, and bins.
- Provide dignity kits (including reusable pads, soap, and underwear) in schools and maternity/ANC wards.
- Train female MHM champions in every ward (from school health clubs, CHVs, nurses).
- Implement community MHM awareness campaigns targeting parents, male teachers, and caregivers.

2.12.3 Challenges and Gaps in Service Provision

While Kericho County has made progress in enhancing water, sanitation, and hygiene (WASH) access across institutional settings, critical challenges persist in the delivery, inclusivity, and sustainability of services, especially regarding menstrual hygiene, medical waste disposal, and affordability-related barriers. This section identifies the major systemic constraints and proposes strategic interventions to address them.

2.12.3.1 Menstrual Hygiene Management (MHM) Approaches

Despite awareness initiatives and partial provision of sanitary pads in some schools:

- MHM implementation remains infrastructure-deficient, with the majority of institutions lacking private changing areas, pad disposal bins, or functional incinerators.
- The provision of sanitary pads is sporadic and donor-dependent, with no established supply chain through public systems.
- Only 21.59% of healthcare facilities and 12.69% of schools provide a safe and private space for MHM with both water and soap.
- MHM is still not formally integrated into school WASH budgets, curriculum, or WASH facility design standards.

2.12.3.2 Medical Waste Management Approaches in Healthcare Facilities

Medical and sanitary waste disposal is another underdeveloped area:

- Only a few sub-county hospitals have functional incinerators, while most dispensaries and health centres:
    - Burn waste in open pits,
    - Bury waste alongside general refuse,
    - Or leave sharps and menstrual waste uncollected.
- Waste segregation is inconsistently practiced, often due to a lack of color-coded bins and staff training.
- Staff at Level 2 and Level 3 facilities frequently lack PPE and written protocols for handling infectious or sharps waste.
- Disposal of MHM waste in shared school latrines is common, leading to frequent blockages and unsanitary conditions.

2.12.3.3 Barriers to Access: Affordability and Social Norms

- 80% Most schools and healthcare facilities lack a dedicated WASH budget for supplies such as sanitary pads, gloves, soap, and water treatment materials.

- Sanitation hardware (e.g., SATO pans, MHM bins, water tanks) is often unaffordable for schools without donor support.
- User fees for public toilets in markets and trading centres (e.g., Brooke, Kapsoit) often exclude poor and vulnerable users, especially adolescent girls, older women, and PWDs.
- Social and Cultural Norms
- Taboos around menstruation and reproductive health continue to restrict access to dignified sanitation:
    - Girls fear teasing or stigmatization when carrying pads or requesting to leave class.
    - In some communities, menstruating girls are discouraged from attending school or religious events.
    - Boys and male teachers are rarely engaged in MHM programming, reinforcing gendered silos.

2.12.3.4 Strategies for Improving Inclusivity and Sustainability

Table 2.48: Strategies for Improving Inclusivity and Sustainability

Challenge Area	Recommended Strategy
Inadequate MHM Infrastructure	Retrofit school toilets with locks, MHM bins, water tanks; build changing rooms in larger schools
Limited MHM Supplies	The county government will co-finance regular pad provisions in schools and maternity wards.
Cultural Taboos	Launch inclusive MHM campaigns involving boys, teachers, and parents.
Medical Waste Disposal	Establish ward-level medical waste management protocols and decentralize the siting of incinerators.
PWD Access	Adopt inclusive toilet design features (ramped floors, wide doors, and grab bars) as standard in all new facilities.
Institutional Budget Gaps	Integrate MHM, cleaning, soap, and WASH training into education and health operational budgets.

2.13 WASH Plus/Multiple Use Water (MUS) Services

2.13.1 Water Needs beyond Domestic Use, Including Small-Scale Irrigation, Livestock, and Small-Scale Industry

In Kericho County, water is essential not only for domestic use but also for supporting a range of productive uses, including irrigation, livestock watering, agro-processing, and small-scale manufacturing. These multi-use water services (MUS) are critical for household income, food security, and climate resilience, particularly in rural and peri-urban areas where water demand spans both domestic and livelihood needs. Multiple-use water services (MUS) are essential in communities where domestic needs compete with livestock, irrigation, and small enterprises. Table 2.13 outlines the key areas for MUS implementation and the corresponding strategies.

Table 2.49: Key Areas for MUS and Proposed Strategies

Location / Ward	Dominant Non-Domestic Uses	Proposed MUS Strategy
Belgut (Kaptebeswet)	Livestock watering, car washing	Dual-use piped schemes, animal troughs
Kipkelion West (Kipsaos)	Smallholder irrigation	Spring-fed gravity MUS systems
Soin/Sigowet (Soin)	Agro-processing, tea factories	Storage tanks + rainwater harvesting
Ainamoi (Township)	Institutional & commercial demands	Metered expansion + network strengthening

Source: CWSSIP Field Consultations and WRUA SCMP Data, 2025.

2.13.1.1 Assessment of Multi-Use Water Demands

a) Livestock Water Use

Based on the livestock census and land productivity zones:

- Kericho County hosts an estimated 488,033 livestock units, with the highest concentrations in Kipkelion East and Belgut.
- The average daily livestock water demand is 50 litres per LU, resulting in a county-wide requirement of approximately 24,402 m³/day

Table 2.50: The Livestock Units (LU) water Estimated Daily Water Demand (m³/day) per SubCounty

Sub-County	Livestock Units (LU)	Estimated Daily Water Demand (m³/day)
Kipkelion East	129,067	6,453
Belgut	84,350	4,218
Bureti	80,275	4,014
Sigowet	78,867	3,943
Kipkelion West	55,500	2,775
Ainamoi	59,975	2,999

b) Small-Scale Irrigation

- Permitted Small-scale irrigation users include commercial tea estates (e.g., James Finlay and Unilever Tea) and smaller landholders along river tributaries.
- Over 30 permits for irrigation use were identified, with allocated abstraction volumes reaching up to 3,700 m³/day per user
- Crops supported include vegetables, bananas, maize, sugarcane, and tea, often on smallholder farms that mix household and commercial production.

c) Small-Scale Industry

- Water-intensive small-scale industries include:
  - Tea processing (hot water, washing),
  - Dairy and livestock product processing,
  - Brickmaking and construction material manufacturing.
- Industrial permits show a cumulative abstraction of 3,344 m³/day from normal flow and 12,429 m³/day from flood flow, although many smaller users are not formally registered

2.13.1.2 Current Gaps and Constraints

Despite the evident demand, the current WASH infrastructure is not systematically designed or managed to meet these multiple needs. Key challenges include:

- Uncoordinated water abstraction by different users from shared sources, especially during dry spells;
- Lack of water allocation planning that balances household use with productive use;
- Limited investment in multi-purpose water systems (e.g., piped schemes or storage that serve both homes and livestock troughs);
- Underutilization of rooftop and surface runoff harvesting for irrigation or non-potable use.

2.13.1.3 Strategies for Integrated Water Service Delivery

To meet both basic and productive water needs, the County should adopt integrated approaches that allow for multiple-use water systems (MUS). Strategies are captured in the table below:

Table 2.51: Multiple-use water systems (MUS) Strategies

Strategy	Description

Designing for dual-use	Modify community systems to include livestock troughs and irrigation outlets.
Water User Associations (WUAs)	Formalize community-level management of shared MUS systems
GIS-based Water Allocation Planning	Align abstraction permits and WASH investments with multi-sectoral needs.
Water harvesting for productive use	Promote rooftop and runoff harvesting for school gardens and household farms.
Converged planning	Integrate MUS into health, agriculture, and education sector plans.

2.13.1.4 Role of Climate-Smart Agriculture and Water-Efficient Irrigation

- Climate-smart agriculture (CSA) techniques such as drip irrigation, mulching, and shallow furrow systems are being introduced in highland and midland zones to conserve water.
- The County should partner with MOALD and development partners to scale up rainwater harvesting for irrigation, particularly in semi-arid wards like Soin, Tendeno, and Cheboin.
- Additionally, the use of low-lift solar pumps and gravity-fed tanks can enhance the sustainability of smallholder irrigation and livestock watering without compromising domestic supply.

a) Role of Water User Associations in Managing Multiple-Use Services (MUS)

Water User Associations (WUAs) play a crucial role in the governance and sustainable management of water resources for both domestic and productive uses. In Kericho County, WUAs—operating under the broader WRUA (Water Resource Users Association) structure—play a pivotal role in coordinating access to and use of water for agriculture, livestock, small-scale industries, and domestic needs within defined sub-catchments. Their role is especially critical in ensuring the equity, sustainability, and resilience of water systems amidst increasing climate variability and competing demands.

b) Community-Led MUS Management and Governance Models

Kericho County hosts several WRUAs (e.g., Kipsonoi, Timbilil, Sise, Upper Kipsonoi, Dionsoyet) that have developed Sub-Catchment Management Plans (SCMPs) to guide multi-use water governance. These SCMPs provide clear frameworks for:

- Water allocation planning for diverse uses including irrigation, domestic, environmental, and livestock needs;
- Stakeholder engagement platforms for resolving local conflicts between user groups;
- Water quality monitoring and source protection—including fencing of riparian zones, spring protection, and catchment rehabilitation;
- Infrastructure development (e.g., troughs for livestock, irrigation intakes, shared storage tanks) tailored to community priorities.

While institutional frameworks are in place, most WRUAs still require stronger links with county-level planning processes and enhanced technical capacity to support infrastructure design, financial management, and climate adaptation.

c) Strategies to Enhance Resilience in MUS Systems

To safeguard MUS systems from climate risks and socio-economic pressures, the following resilience-building measures—many of which are proposed in WRUA SCMPs—should be mainstreamed:

Table 2.52: Strategies to Enhance Resilience in MUS Systems

Risk Area	Recommended Resilience Strategy
Seasonal water scarcity	Water scheduling, rotational abstraction calendars, and buffer storage development
Flood damage to intakes	Climate-proofing infrastructure (e.g., elevated tanks, sediment traps, embankment walls)
Resource conflict	Multi-stakeholder water use forums, bylaws for equitable abstraction
Catchment degradation	Agroforestry, gully control, riparian restoration, and erosion check structures
Drought resilience	Integration of solar-powered pumping and dual-use boreholes (domestic + livestock)

Climate-smart actions outlined in SCMPs—such as those by Upper Kipsonoi and Sise WRUAs—can be replicated across other sub-catchments through structured county support and budget allocations.

d) Best Practices and Capacity-Building for MUS Implementation

Examples of good practice emerging from WRUA-managed MUS initiatives include:

- Spring rehabilitation and community-led fencing projects (e.g., Sise WRUA),
- Multi-use water point design with separate access for livestock and households (e.g., Kipsonoi WRUA),
- Catchment protection and on-farm water harvesting (e.g., Dionsoyet WRUA's collaboration with agroforestry groups),
- Participatory monitoring systems using simplified water balance tools.

However, these successes remain localized. To scale up MUS effectively, the following capacity gaps must be addressed:

Table 2.53: Capacity gaps to be addressed

Capacity Area	Need Identified
Technical design	Training on MUS system planning, abstraction controls, and irrigation design
Financial governance	Bookkeeping, tariff setting, and grant proposal writing
Climate data integration	Use of seasonal forecasts and local indicators to plan abstraction schedules
Gender and youth inclusion	Leadership training to enhance representation in WRUA decision-making
Legal and institutional linkages	Alignment with County Integrated Development Plans (CIDPs) and WRMA bylaws

Strategic Recommendation: County government should formally integrate WRUAs and WUAs into WASH and agricultural water planning frameworks, provide targeted technical support through LVSWWDA and DWRM, and allocate resources under FLLoCA and NAWASIP to scale community-led MUS delivery models.

3.1 Sector Governance and Service Delivery Models

3.1.1 Overview of Institutions Responsible for Water and Sanitation Service Provision

Water and sanitation service delivery in Kenya is governed through a devolved structure defined by the Constitution of Kenya (2010) and the Water Act (2016). These laws allocate responsibilities between the national and county governments, with specific institutions mandated to develop, regulate, finance, and implement water and sanitation programs. In Kericho County, service delivery is shaped by this framework and further supported (or supplemented) by informal and community-based actors. Key Policies and Legal Framework are summarized in the following tables:

Table 3.1: Legal and Regulatory Framework

Legal/Regulatory Instrument	Description	Relevance to WASH in Kericho
Constitution of Kenya (2010)	It provides the foundation for the right to clean and safe water (Article 43) and devolves water and sanitation functions to the counties.	Anchors WASH as a basic human right and a country's responsibility.
Water Act (2016)	It provides for the management, conservation, use, and regulation of water resources and services and establishes WASREB, WRA, and WSPs.	Governs licensing of KEWASCO, WRA water allocations, and national investment coordination.
County Governments Act (2012)	Framework for devolved governance and service delivery at the county level.	Legally mandates the County Government of Kericho to develop and implement county-specific WASH strategies and budgets.
Public Health Act (Cap 242)	Governs sanitation standards and public health controls.	Basis for enforcement of sanitation regulations, latrine construction, hygiene in schools, and health centers.
Environmental Management and Coordination Act (EMCA, 1999)	Kenya's primary framework for environmental protection.	Guides environmental safeguards in WASH infrastructure development (e.g., wastewater disposal, catchment protection).
Urban Areas and Cities Act (2011)	Provides guidelines for urban service delivery and planning.	Key to structuring sanitation and water provision in Kericho's urban and emerging growth centers.

Table 3.2: Policy and Strategic Framework

Policy/Strategy	Custodian	Relevance and Link to CWSSIP
National Water Policy (2019)	Ministry of Water, Sanitation and Irrigation (MoWSI)	Guides sustainable and equitable access to water and sanitation, promotes devolution, pro-poor financing, and climate resilience.
Kenya Vision 2030	National Treasury	Universal access to water and sanitation is targeted as part of the social pillar. The CWSSIP aligns with the WASH-related Millennium Development Goals/Sustainable Development Goals (MDG/SDG) transitions under this policy.

Kenya National Water and Sanitation Investment Program (NAWASIP, 2022–2030)	MoWSI	It provides the investment roadmap for achieving SDG 6 by 2030 across all countries. CWSSIP is a vehicle for implementing NAWASIP at the county level.
K-WASH Program (World Bank, 2024–2030)	MoWSI & WB	Results-based financing initiative supporting performance improvement and investment in 19 counties, including Kericho. CWSSIP compliance unlocks funding.
County Integrated Development Plan (Kericho CIDP III, 2023–2027)	County Government of Kericho	Outlines WASH development priorities, flagship projects, and budget allocations over five years. CWSSIP operationalizes CIDP WASH priorities.
Lake Region Economic Bloc (LREB) Framework	LREB Secretariat	CWSSIP is a regional development coordination platform that promotes integrated water resource management and the sharing of infrastructure. It aligns Kericho's planning with neighboring counties.
National Climate Change Action Plan (NCCAP, 2023–2027)	Ministry of Environment	Mainstreaming climate resilience into water and sanitation investments. CWSSIP identifies adaptation measures and builds resilience.
Kenya Health Policy (2014–2030)	Ministry of Health	WASH is recognized as essential for preventive health, particularly in healthcare settings. CWSSIP aims to improve WASH in health centers.
Sanitation and Hygiene Policy (2016)	MoWSI	Promotes inclusive and safe access to sanitation for all; mandates public participation and equity. This policy directly informs CWSSIP sanitation sections.
Menstrual Hygiene Management Strategy (2022–2026)	Ministry of Health	Promotes gender-sensitive WASH facilities and menstrual dignity. CWSSIP integrates MHM indicators for schools and institutions.

Table 3.3: International and Global Commitments

Framework	Description	Link to CWSSIP
Sustainable Development Goals (SDG 6)	Ensure the availability and sustainable management of water and sanitation for all by 2030.	CWSSIP directly contributes to SDG 6.1 (access to drinking water) and SDG 6.2 (sanitation and hygiene).
Africa Agenda 2063	AU vision for inclusive growth, access to safe water, hygiene, and climate adaptation.	CWSSIP aligns with Goals 1 (prosperity), 7 (environmental sustainability), and 17 (full gender equality).
UN General Assembly Resolution 64/292	Recognizes water and sanitation as human rights.	CWSSIP operationalizes the right to water and sanitation in Kericho.

Table 3.4: Policy Gaps and Recommendations

Policy Gap	Recommendation
Lack of localized sanitation regulations	Enact county-specific sanitation and hygiene bylaws to guide enforcement.
Weak climate integration in WASH planning	Incorporate mandatory climate risk assessments in all major infrastructure projects.
Poor inter-agency coordination (WRA, LVSWWDA, County)	Strengthen joint planning forums and Memoranda of Understanding (MoUs) for project handover and sustainability.
Gaps in the enforcement of inclusive WASH standards	Mainstream enforcement of universal design (PWD-, child- and gender-friendly WASH) in county WASH policies.

3.1.2 Institutional Roles: National and County Levels

Table 3.5: Institutional Roles at the National Level

Institution	Mandate
Ministry of Water, Sanitation and Irrigation (MoWSI)	Policy development, national strategy, data systems, oversight of Water Works Development Agencies (WWDAs)
WASREB – Water Services Regulatory Board	Licensing and regulation of WSPs; performance monitoring; tariff approval; consumer protection
Water Resources Authority	Management of water resources, permit allocation, regulation of WRUAs, catchment protection
Water Sector Trust Fund	Financing for underserved areas (rural, informal settlements, schools, HCFs)
Water Tribunal	Legal resolution of disputes in the water sector
WWDAs (in this case LVSWWDA)	Bulk water and sanitation infrastructure development, cross-county and regional systems

At the county level, Kericho has established devolved institutional structures through the Department of Water, Environment, Energy, Forestry, and Natural Resources (DoWEEFNR), which oversees the County Water Supply and Sanitation Plan (WSP) and rural schemes, as per the Kericho Water Master Plan.

3.1.3 County-Level Institutions in Kericho

Kericho County currently implements WASH services without a standalone County Water and Sanitation Act. However, a draft County Water Bill (2023) and Faecal Sludge Management (FSM) Policy are under development and are expected to be enacted within the CWSSIP implementation period. The absence of this legal framework has historically constrained sector-wide coordination, budget tracking, and regulation of informal providers. The CWSSIP recommends that the County Assembly formally adopt the policy instruments and integrate WASH service regulation into county laws.

The table below summarizes the key institutions and their respective mandates:

Table 3.6: The County Levels Institutions, Mandate and Functions

Institution	Mandate and Functions
Kericho Water and Sanitation Company (KEWASCO)	Licensed Water Service Provider (WSP) under the Water Act 2016. Operates piped water and sewerage services in urban and peri-urban areas. Regulated by WASREB and guided by a Service Provision Agreement (SPA) with the County Government.
County Directorate of Water and Sanitation	Coordinate rural and peri-urban water services. Oversees the Water Services Support Division, which offers technical and financial backstopping to small schemes. Supervises six sub-county water offices responsible for implementation oversight and community engagement.
Community Water Schemes and Water User Associations (WUAs)	Manage point sources and small-scale piped schemes in rural areas not served by KEWASCO. Operate semi-formally and receive technical support from sub-county water officers. Vary widely in capacity, coverage, and sustainability.
Department of Health Services	Leads public health promotion, hygiene behavior change programs, and WASH in healthcare facilities. Enforces sanitation and hygiene regulations under the Public Health Act—Collaborates in community-led total sanitation (CLTS) campaigns.
Department of Lands, Housing and Physical Planning	Provides land tenure guidance, approves siting of WASH infrastructure, and supports enforcement of building codes, including sanitation infrastructure in housing and public buildings. Supports spatial planning for the integration of sewerage and FSM.
County Assembly (Water and Environment Committee)	Provides legislative oversight on water and sanitation matters, including bylaw formulation, budget approval, and monitoring of departmental performance. Key in anchoring WASH strategies and investments within legal frameworks.

3.1.4 Informal and Community-Led Service Arrangements

In rural areas, service delivery is often managed by:

- Water User Associations (WUAs) and Community-Based Water Projects, registered through the Social Services or the Ministry of Gender.
- These groups operate under unregulated tariffs, with limited technical support, leading to frequent breakdowns and dependence on county subsidies (Kericho Water Master Plan)
- Some schemes receive technical support through partnerships with WRUAs, NGOs, and the WSTF (e.g., through FLLoCA).

3.1.5 Integration Challenges and Opportunities

- Overlapping mandates and weak coordination across agencies (especially between KEWASCO, county directorates, and WSPs).
- Need to formalize and professionalize community-managed rural schemes while avoiding the collapse of KEWASCO by burdening it prematurely with poorly managed assets.
- Leverage the Water Sector Intergovernmental Consultation and Cooperation Framework (WSIGCCF) to harmonize planning, financing, and monitoring efforts

3.1.6 Role of County Government, Water Service Providers (WSPs), and Community-Based Organizations

Under the devolved governance framework provided by the Constitution of Kenya (2010) and operationalized through the Water Act (2016), county governments are the primary duty bearers for delivering water and sanitation services. In Kericho County, this mandate is executed through formal institutions such as the Department of Water and KEWASCO, alongside a network of community-based and informal providers that serve rural and underserved populations. This mixed delivery model presents both opportunities and coordination challenges.

3.1.6.1 Responsibilities of County Governments

Kericho County Government is responsible for:

- Planning and budgeting for water and sanitation services through the County Integrated Development Plan (CIDP) and the County WASH Sector Plan;
- Establishing and supporting licensed Water Service Providers (WSPs) in accordance with WASREB regulatory standards;
- Investing in rural and peri-urban infrastructure, including boreholes, spring protection, piped schemes, and public sanitation facilities;
- Technical backstopping for community-run schemes, including routine inspection, quality assurance, and emergency support;
- Regulation and licensing of informal operators within markets and informal settlements;
- Facilitating inter-agency coordination between departments of health, education, agriculture, and environment for integrated WASH programming.

The county also supports strategic partnerships with LVSWWDA, WSTF, NGOs, and private sector actors under performance-based or co-investment frameworks (Water Master Plan)

3.1.6.2 Formal Service Provision Mechanisms

1. KEWASCO (Kericho Water and Sanitation Company)

- WASREB regulates the licensed urban WSP under a Service Provision Agreement (SPA).
- Operates in Kericho Town, Brooke, Kapsoit, Litein, and surrounding settlements.
- Core services include:
    - Water abstraction from the Timbilil River,
    - Piped network management,
    - Billing and customer care,
    - Sewerage system management (limited coverage).
- Challenges: high non-revenue water (42%), aging infrastructure, and limited expansion into informal areas due to financial constraints.

2. LVSWWDA (Lake Victoria South Water Works Development Agency)

- Responsible for bulk water infrastructure development, including inter-county systems and strategic investment projects such as:
    - Dams,
    - Water treatment plants,
    - Transmission mains.

3.1.6.3 Community-Based and Informal Service Provision Mechanisms

a) Community Water Projects and User Associations

- In In areas outside KEWASCO's reach, water is supplied through CBO-managed schemes, Water User Associations (WUAs), or self-help groups.
- These schemes operate spring-fed or gravity piped systems, protected wells, or boreholes.
- Most are not formally regulated, yet serve large rural populations in Kipkelion East, Bureti, Belgut, and parts of Soin/Sigowet.
- Roles include:
    - Operation and maintenance of small-scale infrastructure,
    - Local tariff collection,
    - Routine repairs and minor expansions.
- Challenges: weak governance, poor technical oversight, and sustainability risks due to volunteer fatigue and funding constraints.

b) Private and Informal Operators

- Common in informal settlements and unplanned peri-urban areas.
- Include:
    - Water vendors (cart pushers, kiosk operators),
    - Private borehole owners supplying water to households or SMEs,
    - Public toilet operators under leasing or informal arrangements.
- These providers are often unlicensed and unmonitored, but play a critical gap-filling role where formal services are absent or unreliable.

3.1.6.4 Integration and Regulation Gaps

Despite the coexistence of multiple actors, there is no unified registry or oversight system for community schemes or private vendors in Kericho County. This fragmentation leads to:

- Inconsistent service quality,
- Pricing disparities,
- Over-abstraction from local sources (e.g., unregulated springs),
- Lack of coordination in climate response and emergency preparedness.

To address this, the county should adopt a tiered service delivery model, clearly outlining roles and responsibilities across urban, peri-urban, and rural zones, and integrating community providers into planning and financing frameworks under the CWSSIP and CIDP.

3.1.7 Role of Communities and Community Organizations in Managing Water Systems

Community involvement is a cornerstone of sustainable water governance, particularly in rural and peri-urban areas where formal utilities may not be available. In Kericho County, community-based organizations (CBOs), Water User Associations (WUAs), and Water Resource User Associations (WRUAs) are responsible for operating and maintaining a substantial number of local water systems. However, while communities demonstrate a high level of ownership, gaps remain in institutional capacity, regulatory compliance, and formal integration into county-level planning frameworks.

3.1.7.1 Consultations and Feedback Mechanisms

a) Community Engagement in Scheme Design and Planning

- Most community water systems begin as self-help initiatives, where residents contribute land, labour, or funds for spring protection or a piped supply.
- Stakeholder consultations are typically held during system establishment but often fade once construction is completed.
- Only a few projects—especially those supported by WSTF, FLLoCA, or WRUA SCMPs—follow a structured Water Services Stakeholder Forum (WSSF) approach for ongoing dialogue.

b) Feedback and Accountability Structures

- The majority of schemes have management committees elected by users, with roles in operations, tariff setting, and minor repairs.
- However:
  - Only ~40% of schemes conduct regular public meetings, and
  - Less than 30% maintain formal feedback or grievance redress systems (suggested by field reports and county consultations).
- Gender representation remains limited; most committee roles are held by older male members, despite women being the primary water collectors.

Example: The Sise WRUA (based on SCMP reports) has institutionalized quarterly community water user meetings and suggestion boxes for service feedback. This model can be replicated across other rural schemes.

3.1.7.2 *Compliance and Enforcement Mechanisms*

Community-run systems face several compliance and enforcement challenges:

a) Regulatory Gaps

- Many schemes operate without:
  - Abstraction permitted by the Water Resources Authority (WRA),
  - Water safety plans or regular water quality testing,
  - Registration with the county or the Ministry of Water.
- This undermines monitoring, funding eligibility, and coordination with WSPs.

b) Weak Enforcement of Tariffs and Bylaws

- Most communities have local bylaws, but enforcement is inconsistent due to:
  - Lack of legal recognition,
  - Community reluctance to penalize defaulters or illegal connections,
  - Vague delineation of roles between scheme officials and county staff.

c) Environmental and Resource Use Violations

- In several sub-catchments (e.g., Kipsonoi, Timbilil), illegal irrigation and deforestation by upstream users compromise system functionality.
- WRUAs have attempted to enforce source protection (e.g., fencing, gully plugs), but lack sufficient technical and legal support.

3.1.7.3 *Strengthening Community Roles in System Management*

To strengthen accountability, efficiency, and sustainability of community-managed water systems, the following measures are recommended:

Table 3.6: Strengthening Community Roles in System Management

Priority Area	Recommended Action
Institutional Recognition	Register all active community schemes under the county's Water Department for formal oversight.
Capacity Building	Train committees on O&M, financial management, water safety, and gender inclusion
Monitoring and Data Systems	Introduce simplified monitoring tools (mobile apps, logbooks, SMS-based alerts)
Grievance Mechanisms	Establish community feedback desks or suggestion boxes at the scheme level.
Enforcement Support	Integrate local bylaws into WRUA or county enforcement frameworks (with legal backing)
Climate Resilience Planning	Ensure community committees are trained in risk assessment, emergency response, and drought coping.

3.1.8 Public-Private Partnership (PPP) Opportunities in Service Delivery

Public-private partnerships (PPPs) present a viable pathway for enhancing service delivery in Kenya's water and sanitation sector, especially in bridging infrastructure financing gaps, improving operational efficiency,

and scaling up innovation. In Kericho County, Public-Private Partnerships (PPPs) remain underutilized but hold significant potential in both urban and rural Water, Sanitation, and Hygiene (WASH) investments, particularly in areas such as non-sewered sanitation, water kiosks, bulk water supply, and digital billing solutions. A successful PPP model requires a robust legal framework, clear stakeholder roles, and equitable risk sharing.

The CWSSIP identifies several priority areas for structured Public-Private Partnerships (PPPs) to enhance service quality and financing innovation. These include:

a) Faecal Sludge Management (FSM) in urban centres (Kericho Town, Londiani, Litein),
b) Smart Metering and NRW Management through vendor-financed or lease-to-own models,
c) Bulk Water Treatment and Storage (e.g., multi-village schemes in Kipkelion West),
d) Sanitation Marketing and waste valorization via circular economy actors. These areas present potential for blended finance and Output-Based Aid (OBA) instruments under the K-WASH PBG window.

3.1.8.1 Successful Case Studies and Lessons Learned

Although formal PPPs in Kericho are still emerging, various public-private collaborations at the national and county levels offer lessons for replication:

Table 3.7: Successful Case Studies and Lessons Learned

Case Study	Financing & Risk Sharing Model	Key Lessons
Nakuru Sanitation PPP (AfDB & VEI)	AfDB + public grants + operator-managed tariffs; private operator manages fecal sludge treatment and urban sanitation	Institutional clarity and ring-fenced sanitation revenue streams were critical to viability.
Githunguri WSP Solar Pumping Model	The private contractor installed solar infrastructure; WSP pays over time for the electricity costs saved.	Output-based incentives (energy savings) can lower O&M costs sustainably.
Kiambu Water Kiosk Franchise Model	The county licensed small and medium-sized enterprises (SMEs) to operate pre-paid water kiosks in informal areas; a private information and communication technology (ICT) firm provided the technology.	ICT-enabled kiosks enhance accountability and improve the customer experience.

In each case, risk mitigation mechanisms included:

- Performance-based contracts,
- Output-based aid (OBA),
- Revenue sharing linked to cost recovery.

Gaps in Kericho's PPP readiness include:

- Absence of a county-specific PPP framework tailored to water and sanitation,
- Weak legal instruments for performance monitoring and revenue ringfencing,

- Limited public knowledge of risk-sharing mechanisms.

3.1.8.2 Strategies for Mobilizing Private Sector Participation

To unlock PPP potential in Kericho, the following policy and regulatory strategies are recommended:

a) Develop a County WASH PPP Policy:
   - Define roles, incentives, risk allocation, and performance indicators.
   - Align with the National PPP Policy (2022), Water Act (2016), and WASREB Tariff Guidelines.

b) Strengthen Stakeholder Engagement Platforms:
   - Use public forums (e.g., Water Services Stakeholder Forums) to co-design PPP projects.
   - Ensure that women, youth, and marginalized groups are involved in planning and implementation.

c) Leverage Targeted Public Investments to De-Risk Projects:
   - Offer public subsidies for land, startup capital, or offtake guarantees.
   - Use FLLoCA and WSTF matching grants to crowd-in private financing.

d) Establish Dedicated PPP Units in the County Department of Water and Health Services:
   - Provide project screening, viability assessment, and contract design support.

3.1.8.3 Areas of High Potential for Private Sector Involvement

Table 3.8: Areas of High Potential for Private Sector Involvement

WASH Subsector	Private Sector Role
Non-sewered sanitation	Provision of container-based sanitation (CBS), mobile toilets, and sludge logistics
Rural piped schemes	Design-build-operate-maintain (DBOM) models for gravity-fed or borehole systems
Smart billing and metering	Supply and management of pre-paid or IoT-based water meters
Sanitation product innovation (SATO)	Manufacture and distribution of low-cost toilet slabs, digesters, or MHM kits
Faecal Sludge Management (FSM)	Private desludging services, FSTP operation, compost production for reuse
Market-Based Sanitation Models	
Construction and Management of Ablution Blocks in Public Spaces (Bus stations, markets)	

3.1.8.4 Blended Finance and Innovative Funding Approaches

Blended finance mechanisms should be pursued to catalyze PPPs in Kericho's WASH sector. These include:

- Output-Based Aid (OBA): Performance-linked grants are disbursed after service milestones (e.g., latrines are built, and water connections are made).
- Challenge Funds and Innovation Grants: Funding competitions for private firms offering cost-effective, scalable sanitation or water access solutions.
- Public Guarantees and First-Loss Capital: County-backed risk-sharing structures to incentivize lending from local banks or MFIs to private WASH enterprises.
- Carbon Financing: Link solar-powered water supply or sanitation systems to verifiable emissions reductions.
- Diaspora Bonds and Community Co-Financing: Explore bonds and savings schemes for rural water systems with community and diaspora buy-in.

3.1.8.5 Strategic Implications for CWSSIP Implementation

A formal PPP strategy, integrated into Kericho's County WASH Policy and CWSSIP implementation roadmap, will help identify bankable projects, crowd in private expertise, and ensure long-term service sustainability while safeguarding equity and affordability.

Kericho County currently implements WASH services without a standalone County Water and Sanitation Act. However, a draft County Water Bill (2023) and Faecal Sludge Management (FSM) Policy are under development and are expected to be enacted within the CWSSIP implementation period. The absence of this legal framework has historically constrained sector-wide coordination, budget tracking, and regulation of informal providers. The CWSSIP recommends that the County Assembly formally adopt the policy instruments and integrate WASH service regulation into county laws.

3.2 Sources of Funding

Kericho County's water and sanitation sector is financed through a mix of county budget allocations, national government transfers, development partner support, and limited private capital mobilization. Despite this blended structure, funding remains insufficient relative to service demands, and sector sustainability is threatened by underinvestment in operations and maintenance, as well as slow capital financing disbursement.

3.2.1 Current Sources of Funding

Table 3.9: Current Sources of Funding

Source	Description
County Government	Main financier of rural water schemes, borehole drilling, minor system rehabilitation, and O&M
National Transfers	Includes conditional grants, development transfers (e.g., through LVSWWDA), WRA, and WSTF allocations
Development Partners	World Bank (K-WASH and FLLoCA), AfDB, GIZ, UNICEF, and bilateral donors fund sanitation, FSM, and rural water
Private Capital & Community Contributions	Includes water vendors, community-financed schemes, and PPP pilots through KEWASCO or WRUAs

In FY 2023/24, Kericho received an estimated KES 1.2 billion for the Water Sector Development Program – Package C (KEWASCO) and a further KES 450 million for the Kabianga Water and Sewerage Project, both funded through a county-development partner co-financing model

3.2.1.1 Historical WASH Sector Funding by Source (2020–2024)

Over the past five years, WASH sector investments in Kericho have been financed through county budgets, national transfers, and donor grants. Table 3.9 outlines the historical funding flows by source between 2020 and 2024.

Table 3.10: Historical WASH Sector Funding by Source (2020–2024)

Source of Funding	2020	2021	2022	2023	2024	Total (KES M)
County Budget (Dev + Recurrent)	320	345	372	395	410	1,842
National Transfers (WSTF, WWDA)	65	80	95	110	120	470
Development Partners (WB, UNICEF, AfDB)	90	125	150	180	250	795

Community Contributions	10	12	18	20	22	82
Total	485	562	635	705	802	3,189

Source: County Treasury Reports, K-WASH PEF Submissions, Donor Disbursement Records.

3.2.1.2 KEWASCO Revenue vs Operational Costs (2020–2024)

KEWASCO's financial sustainability remains constrained by high Non-Revenue Water (NRW), low tariff recovery in rural zones, and rising energy and staffing costs. Table 3.8 presents the utility's revenue performance against operational expenditure over the past five years.

Table 3.11: KEWASCO Revenue vs Operational Costs (2020–2024)

Year	Total Revenue (KES M)	O&M Costs (KES M)	Cost Coverage (%)	Annual Deficit (KES M)
2020	210.4	260.7	81%	(50.3)
2021	234.1	285.0	82%	(50.9)
2022	245.8	308.2	80%	(62.4)
2023	278.3	327.6	85%	(49.3)
2024	310.6 (projected)	360.0 (projected)	86%	(49.4)

Source: KEWASCO Business Plan 2023–2026; Audited Financials.

3.2.2 Trends in Private Capital Mobilization

Private sector participation in water and sanitation remains nascent in Kericho:

- Most community schemes are self-financed through membership fees and small grants from CDF or WSTF.
- Operational deficits and low cost recovery constrain KEWASCO's ability to attract private investment. Between 2020 and 2024, KEWASCO reported cumulative deficits ranging from KES 29 million to KES 58 million annually, even after receiving national subsidies

No major commercial loans or equity investments have been documented in the sector, though opportunities exist through:

- Output-Based Aid (OBA),
- Leasing models for FSM and sanitation,
- Solar-based water pumping systems with pay-as-you-go financing.

3.2.3 Public Financing as a Share of County Gross County Product (GCP)

3.2.3.1 Budget Absorption Efficiency Table

The County's budget execution capacity has averaged over 85%, although challenges persist in procurement delays and late exchequer releases. The table below shows the trend of budgeted versus actual WASH expenditures over the past five years.

Table 3.12: WASH Budgeted vs Actual Expenditure (2020–2024)

Year	Budgeted Amount (KES M)	Actual Expenditure (KES M)	Absorption Rate (%)
2020	520	440	84.6%
2021	570	495	86.8%
2022	620	528	85.2%

2023	680	595	87.5%
2024	750	660 (projected)	88.0%

Source: County Treasury Budget Implementation Reports 2020–2024.

While exact disaggregation of sectoral GCP is often limited, estimates based on county budget allocations and project expenditure suggest that:

- Water and sanitation allocations represent approximately 3–4% of Kericho's total annual development budget, and
- Public financing averages KES 500–700 million/year, translating to less than 0.5% of Kericho's estimated GCP, based on KNBS projections.

This falls below the recommended 1–1.5% GCP benchmark required to meet SDG 6 targets.

3.2.4 Water Sector Debt and Payment Modalities

There is no publicly disclosed long-term debt stock for Kericho's water sector under concessional or commercial financing. However:

- KEWASCO continues to operate under an implicit subsidy model, with O&M shortfalls met through county grants and national transfers.
- Current payment modalities rely heavily on budgetary top-ups, with limited reliance on debt service or revolving fund mechanisms.
- County-level borrowing for infrastructure remains constrained by the Public Finance Management (PFM) Act and the PPP Act (2021).

3.2.5 Adequacy of County Funding for NAWASIP-PEF Projects (Up to 2030)

Kericho's NAWASIP-aligned investments (as listed in the national annex) amount to approximately KES 6.3 billion across 10 major WASH infrastructure projects, including:

- Kusumek Water Supply Project (KES 694 million),
- Kipkobob Water Supply Project (KES 357 million),
- Cheptuiyet Water Supply (KES 400 million),
- Drilling of 30 boreholes (KES 600 million)

Based on these figures and assuming cost escalation and maintenance, the county would need to mobilize at least KES 10 billion by 2030 to meet NAWASIP's minimum Expenditure Framework threshold for full coverage.

Without:

- Enhanced own-source revenue,
- Institutionalized co-financing (e.g., with WSTF or PPPs),
- Blended finance leveraging concessional debt,

The county risks falling short of the NAWASIP investment pipeline's execution benchmarks.

3.2.6 Revenue Generation Models, Including Tariffs and User Fees

Revenue generation is a critical component of sustainable water and sanitation service delivery. In Kericho County, water utilities, community-managed schemes, and private vendors employ a range of pricing mechanisms to recover their costs. However, persistent challenges related to tariff design, affordability, and user willingness to pay undermine the viability and equity of service provision.

3.2.6.1 Existing Pricing Structures and Their Effectiveness

a) KEWASCO (Licensed Urban WSP)

- Operates under a WASREB-approved tariff structure.
- The most recent tariff (as per Impact Report 16) includes:
  - Lifeline block: KES 50 for 0–6 m^3/month (subsidized rate),
  - Progressive blocks: KES 77–KES 90 per m^3 for higher consumption bands,
  - Sewerage charge: 75% of water bill (where applicable).
- Non-domestic users (e.g., institutions, SMEs) pay KES 100–KES 120 per m^3.

Despite regulated tariffs, KEWASCO faces low revenue collection efficiency (~85%) and high non-revenue water (~42%), leading to sustained annual operational deficits.

b) Community-Managed Schemes

- Pricing varies by scheme and is often flat-rate or per-container-based.
- Monthly charges range from KES 50 to KES 200 per household, while public taps charge KES 2–5 per 20L jerrican.
- Few schemes have formal metering or billing systems; revenue is used for minor repairs and caretaker stipends.
- Inconsistencies in tariffs and low accountability lead to financial leakages.

c) Informal Vendors

- In peri-urban and informal settlements, cart vendors and borehole owners charge KES 10–20 per 20L, depending on distance and availability.
- These rates can exceed KES 500–1000 per m^3, making vendor water the most expensive option for the poorest residents.

3.2.6.2 Challenges in Affordability and Willingness to Pay

a) Affordability Constraints

- According to national benchmarks, households should spend no more than 5% of their income on water.
- In low-income areas such as Kapsoit, Kipchimchim, and Brooke, households often exceed this threshold, especially during dry seasons or system breakdowns.
- Many households rely on irregular income, leading to bill defaults or disconnections even under lifeline tariffs.

b) Willingness to Pay and Trust

- In rural schemes, willingness to pay declines due to:

- Perceived low service quality or reliability,
- Breakdown of community trust (e.g., misuse of funds, lack of transparency),
- Poor communication about tariff structures or usage.

c) Sustainability Gaps

- KEWASCO's current tariff revenue does not cover capital costs or full O&M, necessitating reliance on county or donor subsidies.
- Most community schemes lack long-term asset replacement funds or savings for major repairs.

3.2.6.3 Strategic Recommendations

Table 3.13: Strategic Recommendations

Challenge Area	Recommended Action
Tariff revision and equity	Review KEWASCO and community tariffs to include lifeline blocks and cross-subsidies
Metering and billing systems	Expand metering in urban and peri-urban areas; introduce pre-paid meters where viable.
Affordability protections	Introduce targeted subsidies or voucher systems for vulnerable households.
Community transparency	Train scheme committees on financial management, and display revenue use in public forums.
Digital payment integration	Leverage mobile money platforms to improve collection efficiency and traceability.

3.2.7 Challenges in Financial Sustainability and Cost Recovery for Water and Sanitation Services

Despite progress in service expansion and regulatory reforms, Kericho County's water and sanitation sector continues to face systemic financial sustainability challenges. These issues are driven by operational inefficiencies, revenue collection shortfalls, insufficient tariffs, and weak cost recovery frameworks, especially in community-run and rural systems. Without addressing these challenges, the county risks undermining both service continuity and long-term infrastructure sustainability.

The table below captures the issues affecting long-term financial viability:

Table 3.14: Issues Affecting Long-Term Financial Viability

Key Issue	Description
High Non-Revenue Water (NRW)	KEWASCO reports non-revenue water (NRW) levels of ~42%, primarily due to physical losses, illegal connections, and poor metering.
Low Tariff Recovery	Tariffs are often below the cost-recovery threshold, especially for community schemes and sewerage services.
Irregular Billing and Collection	KEWASCO and CBOs face challenges with meter reading delays, weak billing systems, and manual collection processes.
Overdependence on Grants/Subsidies	O&M for many systems, especially in rural areas, is funded through county bailouts or donor support.
Inadequate Asset Management	No lifecycle costing, capital replacement planning, or reserve funds in most schemes.
Unpredictable User Payments	Economic shocks, informal livelihoods, and poor customer service can all reduce the willingness to pay.
Unmetered Supply and Flat Rates	Many rural schemes operate on flat-rate charges, leading to inequitable billing and low usage efficiency.

3.2.7.1 Strategies for Improving Revenue Collection and Cost Recovery

To enhance cost recovery and move toward financial sustainability, a multifaceted strategy is required:

Table 3.15: Strategies for Improving Revenue Collection and Cost Recovery

Strategic Area	Recommended Action
Metering and Consumption Tracking	Expand metering coverage, install smart meters in urban zones, and audit connections.
Digital Billing and Payments	Transition to mobile money-based billing and payment systems (e.g., M-Pesa integration)
Tariff Structuring and Adjustments	Review KEWASCO and rural tariffs for inflation indexing and equity-sensitive pricing.
Revenue Management in CBO Schemes	Introduce standardized accounting tools and audit support for rural scheme committees.
Customer Engagement and Education	Strengthen awareness on billing procedures, service reliability, and complaint mechanisms.
Performance Contracts and KPIs	Link scheme operators to performance targets on revenue recovery and customer service
Cross-Subsidy Models	Encourage revenue from institutional and commercial customers to subsidize lifeline users.
O&M Fund Establishment	Each scheme is required to maintain a ring-fenced operations and maintenance fund.

3.2.7.2 County-Level Recommendations

- Establish a WASH Financial Sustainability Framework under the CWSSIP, with clear targets for tariff recovery, O&M budgeting, and asset depreciation funding.
- Introduce a monitoring dashboard for tracking revenue trends and billing collection ratios at the WSP and CBO levels.
- Partner with WASREB, WSTF, and development partners to pilot output-based financing and performance grants tied to revenue performance.

4.1 Overview of Investment Planning Approach

A comprehensive investment plan has been developed to achieve universal access to water, sanitation, and hygiene services across Kericho County by 2030. This plan identifies priority interventions informed by a triangulation of data from the Performance Enhancement Framework (PEF), Appendix 1, the National Water and Sanitation Investment Program (NAWASIP), and the County water and sanitation master plan.

The proposed projects encompass both rural and urban settings, targeting the expansion of water supply, improvements in sanitation services, water resource management initiatives, and institutional reforms. Careful attention has been paid to ensure that interventions are climate-resilient, socially inclusive, and aligned with national and global targets, including Kenya's Vision 2030, the Sustainable Development Goals (SDG 6), and the Lake Region Economic Bloc (LREB) WASH Strategy.

The total indicative investment required over the period 2025–2030 is estimated at approximately KSh 12.3 billion, distributed across key strategic areas. This investment framework aims to bridge current service gaps, enhance operational efficiency, build resilience against climate impacts, and foster sustainable management of water resources. The investments are categorized under the following thematic areas:

a) Water Supply Infrastructure Development and Rehabilitation
b) Sanitation and Hygiene Services Expansion
c) Water Resources Management and Catchment Conservation
d) Institutional Reforms and Service Delivery Strengthening

The following sections provide a detailed breakdown of the proposed investments, their rationale, indicative costs, expected outcomes, and key implementation considerations.

4.2 Sector Historic Expenditure Patterns

4.2.1 Analysis of Past Funding Allocations and Expenditures in Water and Sanitation

Over the last five years, Kericho County has consistently allocated funds to the water and sanitation sector through its annual development budgets, often supplemented by conditional grants and donor co-financing. However, sector investments have been skewed toward water supply infrastructure, with relatively lower allocations for sanitation, particularly non-sewered and faecal sludge management systems. There have also been persistent gaps between budgeted and actual expenditures, stemming from delayed disbursements, under absorption, and procurement bottlenecks.

4.2.1.1 Investment Trends by Subsector and Expenditure Type

A breakdown of investment patterns reveals the following trends:

Table 4.1: Investment Trends by Subsector and Expei diture

Category	Average Allocation (KES Millions)	% of Total Sector Budget
Water Supply (piped, boreholes, springs)	630	69%
Non-sewered Sanitation (latrines, FSM)	180	20%
Sewered Sanitation (KEWASCO projects)	100	11%

- Capital expenditure has accounted for over 82% of allocations, largely for infrastructure (dams, treatment plants, water tanks).
- Operational expenditures (OPEX)—including maintenance, personnel, and utilities—have remained below 15%, leading to underperformance and non-functional systems.
- Subsidies (in-kind or cash-based) have been largely unstructured, provided through emergency repairs or political interventions without sustainability plans. (Table below)

Table 4.2: Breakdown by Expenditure Type

Expenditure Type	Proportion of Sector Spending (%)	Description
Capital Expenditure (CAPEX)	82%	Dominantly for infrastructure: dams, intakes, tanks, networks.
Operational Expenditure (OPEX)	14%	Maintenance, utilities, staffing costs.
Subsidies and Emergency Repairs	4%	Ad hoc grants to community schemes; unsystematic.

Source: County Supplementary Budget Estimates (2019–2024)

The emphasis on capital projects has led to a lack of funding for operations and maintenance (O&M), resulting in the premature deterioration of infrastructure, particularly in rural water schemes and small piped systems.

4.2.1.2 Comparison of Budgeted vs. Actual Expenditures

Between FY 2019/20 and FY 2023/24, there has been an average absorption rate of 72% for WASH investments. Key causes of budget under-execution include:

- Delays in procurement and site handovers,
- Conditional funding disbursement delays from national agencies and development partners,
- Limited community engagement, leading to stalled or rejected projects.

Table 4.3: Budgeted vs. Actual Expenditures

FY	Budgeted (KES M)	Actual Expenditure (KES M)	Absorption Rate (%)
2019/20	680	525	77%
2020/21	720	472	66%
2021/22	835	615	74%
2022/23	958	710	74%
2023/24*	1,100	690 (as of Q3)	63% (projected 78%)

**Data triangulated from Kericho County Supplementary Budget Estimates and Kericho Master Plan expenditure records*

Based on the above, it is observed that:

- Water-heavy investment has improved access, especially in Belgut and Kipkelion East, but sanitation lags.
- Sewerage infrastructure remains limited to parts of Kericho Town, despite recurring funding under KEWASCO's development envelope.
- FSM systems are rarely included in CAPEX planning, making it difficult to track or prioritize sludge management infrastructure.
- Underfunded O&M leads to rapid deterioration of new systems, particularly community-managed boreholes and spring schemes.

To improve historical funding performance, Kericho County should:

a) Institutionalize sector-wide expenditure tracking tools aligned with CWSSIP categories (water supply, sewered sanitation, non-sewered sanitation).
b) Ensure at least 20% of sector allocation supports sanitation, as recommended in the National WASH Policy.
c) Introduce multi-year budgeting for large infrastructure projects, with annual ring-fencing for O&M and community engagement activities.
d) Harmonize donor and county funding flows to avoid duplication and improve absorption.

4.2.2 Assessment of Efficiency in Resource Utilization

Efficient resource utilization is essential for maximizing the impact of water and sanitation investments. In Kericho County, while annual allocations to the WASH sector have steadily increased, a closer analysis reveals significant inefficiencies in expenditure management, procurement, operations, and infrastructure lifecycle planning. These inefficiencies have limited service coverage, reduced infrastructure functionality, and undermined sustainability.

4.2.2.1 Evaluation of How Funds Have Been Spent

Between FY 2019/20 and FY 2023/24, over KES 4 billion was allocated to water and sanitation. However, most funds (approx. 82%) were directed toward capital expenditure, with minimal provisioning for:

- Operations and maintenance (typically <10% of total sector spending),
- Community engagement and behavior change (<2%),
- Water quality monitoring, water safety planning, or post-construction support (negligible allocation).

The table below presents the analysis of sector spending from 2019 to 2024. It reveals varying efficiency in the utilization of allocated resources, influenced by project size, sector (water vs. sanitation), and geographic focus (urban vs. rural).

Table 4.4: Analysis of sector spending between 2019 and 2024

Fiscal Year	Subsector	Budgeted Amount (KES Million)	Actual Expenditure (KES Million)	Absorption Rate (%)	Observations
2019/20	Water Supply Projects	510	395	77%	Moderate absorption; delayed borehole equipping.
2019/20	Sanitation Projects	170	130	76%	School latrine projects are largely implemented.

2020/21	Water Supply Projects	550	360	65%	Delayed procurement for Kimugu expansion.
2020/21	Sanitation Projects	170	112	66%	Underperformance in rural CLTS programs.
2021/22	Water Supply Projects	600	470	78%	Good performance in small piped schemes.
2021/22	Sanitation Projects	235	145	62%	Urban sanitation pilot projects stalled.
2022/23	Water Supply Projects	670	500	75%	Good rural project execution.
2022/23	Sanitation Projects	288	210	73%	Higher uptake of school WASH infrastructure.
2023/24*	Water Supply Projects	720	470 (Q3)	Projected 65%	Delays in NAWASIP co-funded projects.
2023/24*	Sanitation Projects	380	220 (Q3)	Projected 58%	Sewer project slow disbursements.

Source: County Treasury Implementation Reports 2020–2024.

Procurement records and project audits further indicate that:

- Several water projects have been repeatedly budgeted under different phases, leading to fragmented implementation and higher unit costs.
- Boreholes drilled under political or emergency pressure were often not fitted with pumps or solar systems, and remain non-operational.
- Rehabilitation of non-functional systems was prioritized over preventive maintenance due to poor asset tracking.

4.2.2.2 Identification of Inefficiencies and Areas for Improvement

Review of past sector performance highlights persistent inefficiencies that have constrained effective service delivery and investment outcomes in the Kericho County WASH sector. These inefficiencies span the entire project cycle — from planning, financing, implementation, to sustainability — and involve both county-led and externally funded projects. The table below summarizes the key inefficiencies identified, their root causes, and priority areas for improvement:

Table 4.5: Inefficiencies and Areas for Improvement

Inefficiency	Description	Underlying Causes	Priority Areas for Improvement
Overemphasis on new infrastructure	Heavy focus on new construction rather than maintaining or rehabilitating existing systems.	Political incentives favor visible new projects; weak asset management culture.	Introduce structured asset management plans and prioritize rehabilitation projects in annual budgets.
Low absorption of development funds	Significant discrepancies between budgeted and actual expenditures, particularly in sanitation projects.	Procurement delays, weak technical planning, and low community acceptance.	Strengthen project preparation, procurement efficiency, and pre-implementation stakeholder engagement.
Duplication of efforts	Multiple players undertaking overlapping initiatives, leading to inefficiency and wasted resources.	Inadequate coordination between LVSWWDA, WSTF, NGOs, and County Departments.	Establish a county-led WASH coordination platform with joint planning, monitoring, and reporting mechanisms.

Underspending on sanitation and FSM	Sanitation and fecal sludge management projects historically underfunded relative to water supply.	Lower political prioritization; cultural sensitivities; lack of FSM systems.	Ring-fence sanitation funding; develop county FSM strategy and investment pipeline.
Procurement delays and cost overruns	Prolonged tendering timelines and inflated project costs.	Bureaucratic procedures; weak contract management; lack of procurement skills.	Build procurement and contract management capacity within County Water Directorate and KEWASCO.
Weak monitoring of service-level outputs	Limited tracking of actual improvements in water access, sanitation usage, and service quality.	Focus on infrastructure delivery rather than outcome-based M&E.	Strengthen M&E systems with service-level KPIs aligned to WASREB standards; integrate into county MIS.
Inadequate communication and coordination among sector players	Disjointed planning, reporting, and implementation between LVSWWDA, WSTF, NGOs, and County Government.	Lack of structured stakeholder forums; overlapping project jurisdictions.	Formalize inter-agency coordination frameworks and joint investment plans.
Poor transition management of devolved functions	Early teething problems after devolution: confusion over asset ownership, operational roles.	Unclear transition frameworks; slow capacity building at county level.	Complete devolution audits, asset registries, and strengthen county institutional capacity.
Lack of synergy in project planning and implementation	Fragmented WASH interventions failing to leverage cross-sector synergies (e.g., health, education, climate).	Siloed planning approaches within county departments and development partners.	Mainstream cross-sectoral WASH planning linked to health, climate adaptation, and education strategies.

4.2.3 Trends in Investment Compared to Service Delivery Outcomes

Understanding the relationship between financial investments and service delivery outcomes is critical in assessing the efficiency and equity of sector spending. In Kericho County, although water and sanitation investments have grown substantially over the past five years, improvements in service coverage have not always matched the scale of resource allocation, particularly in rural sanitation and non-revenue water control. This section evaluates investment-performance linkages and highlights lessons from public and public-private interventions.

4.2.3.1 Relationship between Investments and Access Improvements

Between FY 2018/19 and FY 2023/24, Kericho County invested an estimated KES 4.3 billion in the water and sanitation sector. This contributed to:

Table 4.6: Relationship between Investments and Access Improvements

Service Area	Access/Performance Indicator	Trend
Urban water coverage (KEWASCO)	Increased from 58% to 64% in formal urban areas	Moderate improvement despite infrastructure investment
Rural water coverage	Improved access in Bureti, Kipkelion East, and Soin via new boreholes and spring protection	Positive but variable, with over 35% still using unimproved sources
Basic sanitation in schools	Reached 80.95% (above the national average of 50%)	Strong result linked to WASH in Schools investments

FSM infrastructure (county-wide)	<10% of public sanitation facilities are linked to any formal FSM chain	Minimal impact despite recognized need
PWD-inclusive WASH facilities	<18% in schools, <16% in health facilities	Marginal improvement; inclusion not well mainstreamed

These findings suggest that water supply investments have outpaced sanitation, and inclusive and climate-resilient systems remain underfunded despite repeated prioritization in strategic plans.

4.2.3.2 Impact Assessment of Major Projects and Initiatives

a) County-Donor Co-Financed Projects

- World Bank FLLoCA-funded sanitation block upgrades and boreholes in Belgut and Kipkelion East: improved ECDE sanitation access but limited long-term maintenance due to weak O&M follow-up.
- KEWASCO sewerage network upgrade (Package C): The sewer coverage in Kericho Town increased from 4% to 6%, but the delayed commissioning of the wastewater treatment unit affected performance.

b) Community-Led and NGO-Supported Projects

- WSTF and NGO spring protection and rainwater harvesting schemes improved access in Tendeno, Chilchila, and Soliat.
- Impact was strong when linked to community WASH committees and WRUA-supported source protection, but projects lacking technical follow-up showed signs of infrastructure decay within 3 years.

c) Public-Private Sanitation Models (Pilot)

- Informal partnerships with private vendors (e.g., toilet operators in Kapsoit Market) have increased access to basic sanitation, but they lack regulation and are not linked to formal FSM systems.

4.2.3.3 Key Takeaways on Investment-to-Outcome Alignment

Table 4.7: Observation on Investment-to-Outcome Alignment

Observation	Implication
Investments favor water infrastructure over sanitation.	Sanitation access lags; FSM and inclusive WASH are underfunded.
Large-scale projects are delayed or fragmented.	Reduces efficiency, increases per capita costs.
No formal results-based tracking system	Hard to attribute outcomes to specific investments
O&M, capacity building, and inclusion are underfunded	Undermines long-term sustainability and service quality

4.2.3.4 Strategic Recommendations

a) Establish a results-based investment tracking framework, linking budget lines to sector KPIs (e.g., people served, litres/day, safely managed sanitation).
b) Allocate at least 25% of the WASH budget to sanitation and FSM, with dedicated sub-programs for inclusion and climate resilience.
c) Introduce mid-term and end-line impact assessments for all capital projects above KES 50 million.

d) Incorporate public-private project audit mechanisms to track affordability, accessibility, and O&M sustainability over time.

4.3 WSS Service Coverage Scenarios, Investments, and Reform Needs

4.3.1 Future Service Demand Based on Population Growth, Urbanization, and Climate Change

Effective water and sanitation planning requires anticipatory strategies that consider demographic shifts, urban expansion, and the intensifying impacts of climate change. In Kericho County, population projections indicate a significant increase in demand for WASH services through 2030 and beyond. Current infrastructure—particularly in rural and peri-urban areas—remains inadequate to meet the scale of future demand. This section outlines key trends and the implications for future service provision.

4.3.1.1 Expected Changes in Demand Due to Demographic and Climate Dynamics

Population Growth and Urbanization

- Kericho County's population is projected to grow from 901,777 (2019) to over 1.15 million by 2029, based on an annual growth rate of 2.5%.
- Urban areas such as Kericho Town, Litein, Kapsoit, and Chepseon are experiencing rapid expansion, with increased migration due to educational, agricultural, and commercial opportunities.
- The Urban population growth is expected to increase pressure on water supply systems by 50–60% by 2030, especially in areas already experiencing supply constraints.

Climate Change Impacts

- Longer dry seasons and erratic rainfall patterns will:
  - Decrease spring yields and groundwater recharge,
  - Intensify water scarcity during drought seasons,
  - Increase contamination risks during flash floods.
- Flood-prone zones such as Cheboin, Kamasian, and parts of Soin are projected to face seasonal disruption of WASH infrastructure, leading to a greater need for resilient technologies.
- Climate stressors will also increase the need for multi-use water services (irrigation, livestock) that compete with household demand.

4.3.1.2 Projections of Future Demand and Resource Adequacy

Implementation of the CWSSIP is expected to significantly improve WASH service access across all population segments. Table 4.6 outlines the projected service coverage trends up to 2030.

Table 4.8: Projected WASH Service Coverage (2023–2030)

Service Indicator	2023 Baseline (%)	2025 (%)	2027 (%)	2030 Target (%)
Water Coverage (Basic)	48.5	58.0	69.0	85.0
Safely Managed Sanitation	12.0	22.0	35.0	60.0
School WASH (Functional)	26.0	45.0	65.0	80.0
HCF WASH (Functional)	48.0	65.0	78.0	90.0
MHM Reach (adolescents)	15.0	35.0	55.0	80.0
Non-Revenue Water (NRW)	47.0	42.0	35.0	25.0

Source: CWSSIP M&E Targets and Financial Model.

4.3.1.3 Infrastructure Needs Based on Population Projections

According to the Masterplan, projected domestic water demand for selected wards is as follows:

Table 4.9: Infrastructure Needs Based on Population Projections

Ward	2019 Demand (m^3/day)	2029 (Projected)	2039 (Projected)
Chepseon	4,127	6,164	10,145
Kipkelion East Cluster	11,630	17,515	26,911
Kericho Town & Environs	16,000	32,000	42,500
Kipkelion West	10,900	14,900	21,000

Projected sanitation demand will similarly increase, especially for on-site systems, FSM, and market/public sanitation in small towns. Without investments in network expansion, FSM infrastructure, and climate-resilient systems, access gaps will widen.

- To meet urban demand, KEWASCO service areas (currently ~32,000 m^3/day capacity) will need to double their current supply by 2030.
- Sanitation infrastructure (sewered and non-sewered) will require accelerated expansion to maintain safe coverage. Less than 6% of the population is currently connected to sewerage.
- Projections suggest the county will need an additional 900 public toilets, 200 sludge management points, and significant expansion of piped networks to reach underserved areas.

Table 4.10: Using the Kericho Water Masterplan and Planning Tool Infrastructure projections

Sector	2025 Infrastructure Need	2030 Infrastructure Need	Key Challenges
Water Supply (urban areas)	Increase supply from ~32,000 to ~48,000 m^3/day	Double current supply to ~65,000 m^3/day	Aging intakes, inadequate storage, NRW control
Rural Water Supply	150 new boreholes, 300 km of network	250 new boreholes, 500 km of network	Groundwater depletion risk, O&M gaps
Sewerage (Kericho Municipality)	Expand sewer coverage to 10% of the population	Expand to 18% coverage	Investment, land acquisition issues
Non-Sewered Sanitation (FSM)	120 public toilets; 40 decentralized FSM facilities	200 public toilets; 80 FSM sites	Weak FSM market development
Climate Resilience Systems	Solarized boreholes; elevated latrines in flood zones	Full integration of rainwater harvesting and aquifer recharge projects	Funding gaps, design integration

4.3.1.4 Adequacy of Existing Resources for Projected Demand

Current service and financing frameworks are insufficient to meet 2030 targets:

a) Water supply systems in Belgut, Kipkelion East, and Kipkelion West operate below design capacity and are vulnerable to drought.
b) Only 10% of annual allocations go to climate-resilient or adaptive infrastructure.
c) Most WRUA SCMPs point to:
    - Lack of backup water sources,

- Limited water storage capacity,
- Weak enforcement of abstraction controls, leading to source depletion during dry seasons

d) The sanitation gap remains high, with an estimated KES 6.5 billion required to scale both sewered and non-sewered options by 2030 (NAWASIP 2022-2030)

Table 4.11: Assessment of infrastructure and resource adequacy

Aspect	Current Adequacy Status	Outlook Toward 2030
Urban Water Supply Systems	Moderate (operating near full capacity)	Will require expansion and NRW reduction to cope
Rural Water Schemes	Inadequate coverage; some systems are aging	Risk of failure without significant new investments
Sewerage Networks	Severely underdeveloped	Large capital gap; requires phased investment plans
Sanitation in Public Spaces	Inadequate (less than 30% covered)	Risk of public health crises without accelerated FSM rollout
Climate-Proof Infrastructure	Largely absent	Must be embedded in all future projects

4.3.1.5 Strategic Implications

a) Infrastructure upgrades must align with projected demand hotspots, particularly in informal urban areas and climate-vulnerable rural regions.
b) Develop climate-smart WASH infrastructure, including: Dual-use water systems, Elevated latrines in flood-prone zones, and Solar-powered supply systems with storage.
c) Adopt a scenario-based planning model to prioritize areas at risk of failing to meet SDG 6 targets by 2030.

4.3.2 Policy and Institutional Reforms Needed for Effective Service Expansion

To achieve universal access to water and sanitation countywide by 2030, Kericho County must undertake a series of policy and institutional reforms to strengthen service delivery, sustainability, private sector engagement, and regulatory oversight. This section outlines key policy shifts and institutional adjustments required across the WASH subsectors and proposes performance indicators to monitor progress.

4.3.2.1 Key Policy Changes by Sub-Sector

Table 4.12: Policy Changes on Water Service Delivery

Policy Gap	Recommended Reform
Fragmented oversight of rural and peri-urban schemes	Develop and operationalize a Kericho Rural Water Service Policy aligned to national guidelines
Lack of standardized community management models	Adopt the model Water Users Association (WUA) by-laws and management templates.
Limited cost recovery and O&M planning	Enforce lifecycle-based investment policies with a minimum 10% allocation to O&M.
Weak integration with catchment protection	Embed WASH–WRM integration in all infrastructure planning through WRUAs and SCMPs

Table 4.13: Policy Changes on Non-Sewered Sanitation Service Delivery

Policy Gap	Recommended Reform
Absence of faecal sludge management (FSM) policy	Adopt a County FSM Policy and Implementation Plan

Lack of service standards for public toilets	Enforce construction and O&M guidelines for sanitation in public institutions and markets.
Weak regulation of informal providers	License and monitor private latrine emptying and CBS operators
Poor inclusion of MHM and PWD-responsive designs	Revise building and sanitation codes to include inclusive, girl-friendly infrastructure.

Table 4.14: Policy Changes on Sewered Sanitation Service Delivery

Policy Gap	Recommended Reform
Low investment and limited coverage of sewer systems	Allocate a minimum of 25% of sanitation funding to sewered infrastructure in urban areas
Absence of long-term wastewater treatment planning	Develop a County Sewerage Expansion and Wastewater Management Master Plan
No sewer connection incentives for low-income users	Introduce connection subsidies or OBA schemes for poor households
Outdated sewer O&M practices	Compliance-based operations audits are required for KEWASCO's sewer systems.

Table 4.15: Policy Changes on Private Sector Participation

Policy Gap	Recommended Reform
No dedicated PPP policy for WASH	Draft and adopt a County WASH PPP Policy, aligned to the national PPP framework
Limited incentives for private WASH enterprises	Establish fiscal and non-fiscal incentives (e.g., lease-based access, tax reliefs)
Lack of clarity in service delegation	Define and formalize contracts with the community, NGO, or private operators in rural areas.

4.3.2.2 Institutional Adjustments to Improve Governance and Accountability

To strengthen sector governance, Kericho County should pursue the following institutional reforms:

Table 4.16: Institutional Adjustments to Improve Governance and Accountability

Institutional Gap	Recommended Adjustment
Weak oversight of community-managed schemes	Establish a Community Scheme Accreditation and Registry System
Poor inter-departmental coordination (water, health, and land)	Form a County WASH Inter-Sectoral Steering Committee
Limited monitoring and evaluation of projects	Operationalize a WASH Monitoring and Reporting Unit within the Department of Water
No asset registry or maintenance tracking	Roll out a GIS-linked WASH asset management system.
Irregular stakeholder dialogue platforms	Institutionalize biannual Water Stakeholder Forums (WSFs) at the county and sub-county level.

4.3.2.3 Regulatory Performance Indicators to be tracked

To ensure reform efforts are effective, the following key performance indicators (KPIs) should be tracked regularly. The comprehensive Monitoring Indicators have been provided under chapter 7.2.3.

4.4 Investment Needs to Close Service Gaps and Improve Sustainability

Kericho County's path to achieving universal access to water, sanitation, and hygiene (WASH) services by 2030 requires a well-structured and targeted investment plan. The County faces significant service delivery gaps—particularly in rural water access, sanitation infrastructure, climate-resilient systems, and pro-poor urban service models. These gaps are compounded by population growth, urban expansion, aging infrastructure, and increasing climate risks such as droughts and floods. To close these gaps, the CWSSIP identifies a comprehensive investment portfolio totaling approximately **KES 12.3 billion** to be implemented over the 2025–2030 period. This plan was developed through extensive stakeholder consultations, field data analysis, review of the Kericho Water Master Plan, and alignment with national strategies, including the **National Water Master Plan (NWMP 2030)**, **NAWASIP concept notes**, and the **Performance Enhancement Framework (PEF)** under the K-WASH Program. The investment needs are divided into:

- **Investment-ready projects** that can be immediately implemented (**Batch 1**); and
- **Strategic long-term and capital-intensive projects** (**Batch 2**) that require preparatory studies, land acquisition, or co-financing mechanisms, but are crucial to meeting long-term objectives.

These investments encompass water supply, sanitation, hygiene promotion, institutional reform, climate resilience, digital systems, and water resource management, providing both the necessary infrastructure and enabling systems to sustain service delivery at scale.

4.4.1 Investment Planning Approach and Prioritization Criteria

The investment plan was developed using a **multi-criteria, phased prioritization approach** grounded in technical feasibility and strategic relevance. This ensured that the limited fiscal space was used to deliver maximum value across different service areas while remaining aligned with national and donor funding expectations.

4.4.1.1 Planning Sources and Inputs

The project pipeline was compiled and refined through triangulation of multiple sources:

- The **Kericho Water and Sanitation Master Plan** and NAWASIP investment concepts;
- County-level project submissions through ward-based public participation;
- Field validation and performance assessments (KEWASCO, Public Health, WRUAs);
- The **Performance Enhancement Framework (PEF)** was developed under the K-WASH program;
- Review of climate hazard exposure, equity mapping, and infrastructure status.

4.4.1.2 Prioritization Criteria

Projects were prioritized based on the following standardized criteria:

Table 4.17: Prioritization Criteria

Criterion	Rationale
Service coverage impact	Projects that close critical gaps in underserved areas or reach large populations
Readiness for implementation	Technical designs completed, permits in place, or part of ongoing programs.
Return on investment (ROI)	Interventions with measurable health, economic, and social benefits

Vulnerability and equity	Pro-poor focus, particularly targeting low-income settlements, schools, and HCFs
Resilience to climate risks	Priority to infrastructure that mitigates flood or drought vulnerability
Cost-effectiveness and scalability	Preference for modular, replicable, or co-funded schemes
Alignment with national/donor plans	Especially NAWASIP, SDG6, and water/climate funding criteria

Each proposed project was assessed against these filters during investment planning workshops involving technical staff from Water, Health, Education, Planning, KEWASCO, and WRUAs.

4.4.1.3 Investment Phasing

The total KES 12.3 billion investment envelope was structured into two major categories:

I. **PEF (Annex 1- Batch 1)**: Comprising KES 4.36 billion worth of **investment-ready projects** with immediate execution potential;

II. **Other Long-Term Project Proposed under NAWASSIP and Water Master Plan (Batch 2)**: Comprising KES 7.94 billion in **strategic, long-term capital projects**, which require additional planning, co-financing, or donor engagement.

The combined package ensures that Kericho can move swiftly into implementation while preparing for scale and long-term sustainability.

4.4.2 Summary of Investment Needs by Service Area

To achieve Kericho County's WASH vision by 2030, the CWSSIP identifies a comprehensive suite of investments across water supply, sanitation, hygiene, water resources management, institutional strengthening, and climate resilience. These are organized thematically and reflect both infrastructure and systems-level interventions. The table below presents a **summary of the subsector's investment needs**, aggregating all projects captured under Batches 1 and 2. It provides a breakdown of the total funding envelope by service area and highlights the strategic balance between capital-heavy water infrastructure and enabling investments in sanitation, resilience, and governance.

Table 4.18: Summary of Investment Needs by Service Area (2025–2030)

Service Area	Estimated Investment (KES Billion)	% of Total Envelope
Water Supply (Urban & Rural)	5.62	45.7%
Sanitation (Sewered & On-site)	2.47	20.1%
Hygiene and MHM	0.63	5.1%
Water Resources and Catchment Management	0.67	5.4%
Institutional Strengthening & Digitization	0.71	5.8%
Climate Resilience and Emergency Preparedness	1.05	8.5%
Monitoring, Governance & Social Inclusion	0.53	4.3%
Total	**12.30**	**100%**

This summary demonstrates a **deliberate shift from historically water-dominated investments** toward a more **integrated, systems-based financing structure**. Particular emphasis has been placed on:

- Expanding equitable access in underserved rural areas;
- Scaling sanitation in small towns and public institutions;
- Embedding climate resilience into water system design;
- Strengthening utility and WRUA capacity to deliver services sustainably.

4.4.3 Disaggregated Investment Needs

To effectively close service access gaps and improve resilience across the water, sanitation, and hygiene (WASH) value chain, the CWSSIP has clustered investment needs into six major thematic areas. Each area represents a foundational building block toward achieving universal access while embedding sustainability, equity, and climate resilience. The summary below presents the financial requirements, key components, and climate-proofing measures prioritized under each theme.

Table 4.19: Disaggregated Total Investment by Service Area (2025–2030)

Service Area	Key Components	Investment Need (KES M)	Priority Climate-Resilient Measures
Water Supply Infrastructure	New piped schemes, boreholes, solarized pumping, water storage expansion	3,850	Rainwater harvesting, drought-proof boreholes, and aquifer recharge
Sewered Sanitation	Sewer extensions, wastewater treatment plants, sewer rehabilitation	2,600	Flood-resistant sewer design, decentralized WWTPs
Non-Sewered Sanitation and FSMs	Public toilets, household latrines, and decentralized FSM units	2,100	Raised latrines in flood-prone areas, solar-powered FSM infrastructure
WASH in Schools and Healthcare Facilities	Inclusive WASH blocks, handwashing stations, and MHM facilities	1,200	MHM-compliant sanitation, rooftop rainwater harvesting in institutions
Water Resources and Catchment Management	Spring protection, watershed rehabilitation, and riparian land restoration	1,350	Nature-based solutions, afforestation, community-led conservation
Institutional, Policy, and Regulatory Reforms	SCADA, ERP, M&E frameworks, county policy reviews, staff training	1,200	Digitization, institutional capacity building, WASH governance tools
Total		**12,300**	

Each of these investment clusters has been **aligned with both immediate service delivery priorities and long-term transformation goals**. A key feature of this plan is the integration of **climate risk reduction** into infrastructure design—ensuring that the investments remain viable and protective of communities in the face of floods, droughts, and temperature extremes. Furthermore, the investments have been costed using unit rates validated by the Water Master Plan, K-WASH PEF cost models, and benchmarking against similar counties. The resulting thematic summary provides a high-level snapshot for policymakers, while the able below translates the investments into concrete, project-level packages ready for implementation.

Table 4.20: Batch 1 Projects: The disaggregated investment-ready by service area (KSh 4.36 Billion)

Project Name	Subsector	Cost (KES M)	Implementation Years	Estimated Beneficiaries
Londiani Wastewater Treatment Plant (790 m³)	Sewerage & WWTP	796	2026–2027	16,729
Kipkelion Rural Piped Scheme	Water Supply	357.3	2025–2026	22,066
Borehole Solarization (40+ systems)	Water Supply	88	2025–2027	12,760+
School WASH Upgrades (10 schools/year × 6 yrs)	Institutional Sanitation	395.4	2025–2030	30,000
HCF WASH Upgrades (10 HCFs/year × 6 yrs)	Institutional Sanitation	395.8	2025–2030	60,000
FSM Facility – Londiani (Decentralized)	On-site Sanitation	120	2026–2028	12,000
Spring Protection Program (60 sites)	Water Resources Mgmt.	30	2025–2027	15,000
Countywide MHM Promotion	Hygiene & Inclusion	50	2025–2028	40,000 (girls & youth)
KEWASCO ERP + Customer Audit	Institutional Reform	55	2025–2026	System-wide
NRW Reduction Initiative	Utility Efficiency Reform	150	2025–2027	30,000 (indirectly)
Kapsoit Sewerage System (Simplified)	Sanitation – Sewerage	210	2026–2028	8,500
Expansion of Kiptere Rural Water System	Water Supply	162.5	2025–2026	9,600
Rehabilitation of Chepkositonik Gravity System	Water Supply	88.2	2025–2027	5,400
WASH in Markets (20 priority rural markets)	Institutional Hygiene	85	2025–2028	40,000 (indirect)
Londiani Faecal Sludge Collection Vehicles (2 units)	Sanitation – FSM	42	2026	Countywide (urban)
Pipeline Extensions in Ainamoi (last-mile reach)	Water Supply	180	2026–2028	7,000
Stormwater Drainage Works – Belgut Market	Resilience – Drainage	37	2025–2026	Market and nearby households
Water Quality Testing Laboratory – KEWASCO	Institutional Capacity	22	2025	Utility-wide
Digital Customer Management System (KEWASCO)	Institutional Reform	33.5	2025	System-wide
Cheboin Water Supply Expansion	Water Supply	72.8	2026–2027	3,200
Kiptewit–Sosiot Gravity Scheme	Water Supply	147.5	2026–2028	8,500
Expansion of Kusumek Rural Scheme	Water Supply	138.9	2025–2027	5,700
Decentralized Sewerage – Litein Town	Sanitation – Decentralized	112	2027–2029	6,000
Londiani Sludge Drying Beds + Storage Unit	FSM & Waste Management	64	2026–2028	County-wide urban centers
County-Wide M&E Digitization Platform	Institutional Monitoring	19	2025–2026	Entire WASH sector (county-level)
Gender and Disability WASH Audits (Pilot in 4 wards)	Inclusion & Safeguards	12.5	2025–2027	10,000+ (beneficiaries reached)

Soin/Sigowet Emergency Borehole Program (8 sites)	Water Supply (Resilience)	96	2025–2026	4,800
Water Kiosks for Low-Income Areas (30 sites)	Pro-Poor Infrastructure	45	2025–2027	15,000
Sanitation Block Upgrades in 15 ECDEs	Institutional Sanitation	33	2025–2026	5,200 children
Community-Based MHM Centers (4 pilots)	Inclusion & Hygiene	18	2026–2027	2,500 adolescent girls
SCADA Expansion – Remote Monitoring (Phase II)	Utility Infrastructure	58	2026–2028	KEWASCO-wide
Market-Based Hand Hygiene Stations (15 sites)	Hygiene Behavior Change	16.5	2025–2026	Urban & peri-urban markets
E-waste and Plastic Disposal Integration (pilot 3 sites)	Environmental Sanitation	25	2026–2028	~10,000 (indirect impact)
County Catchment Management Support Program	Water Resources Management	38	2025–2027	8 WRUAs + Sub-catchments
Construction of Rainwater Harvesting Tanks (70 sites)	Climate Resilience – Water	49	2025–2026	7,500
Mobile Desludging Unit (additional 1 for Kipkelion)	FSM Logistics	27	2026	Urban & trading centers
County Water Safety Planning Toolkit (Rollout)	Institutional Strengthening	13	2025–2027	All WSPs + public HCFs
Ward-Level WASH Investment Committees (25 wards)	Governance & Oversight	11	2025	Countywide
Solarization of 10 Additional Boreholes	Renewable Energy – Water	26.5	2025–2027	3,600
Review & Updating of County Sewer Master Plan	Policy & Planning	17	2025–2026	Strategic
Local Fabrication of Handwashing Units (youth-led)	Livelihoods & Hygiene	9.5	2025–2027	~5,000 + indirect job creation
GIS Mapping of WASH Assets & Expansion Zones	Monitoring & Planning	14	2025–2026	System-wide

Source: CWSSIP PEF Cost Model (Appendix 1).

Total Batch 1 Comprising KES 4.36 billion worth of investment-ready projects with immediate execution potential

In addition to the investment-ready projects captured under Batch 1 above, the CWSSIP identifies a 2nd batch consisting of transformative, long-term capital-intensive investments. These interventions, drawn from the NAWASIP concept notes and the Kericho Water Master Plan, are designed to accelerate Kericho County's path toward full coverage by 2030. While not immediately shovel-ready, they have clear cost estimates, defined outputs, and strategic alignment with regional and national water security frameworks.

Batch 2: Strategic Long-Term and Capital-Intensive Projects, primarily inspired by NAWASIP submissions and the Water Master Plan. This batch will comprise high-value, transformative projects that are not immediately implementable but essential to meet universal access goals.

Table 4.21: Batch 2 Projects – Strategic Long-Term and Capital-Intensive Projects (KSh 7.94 Billion)

Project Name	Subsector	Cost (KES M)	Implementation Years	Estimated Beneficiaries
Londiani Mega Water Supply Project (bulk + trunkline)	Water Supply	2,200	2027–2030	150,000 (multi-ward benefit)
Bosto Dam Link and Regional Water Transfer System	Water Supply	1,900	2027–2030	180,000 (inter-county inclusion)
Regional Sewerage Systems in Kericho Town + Kipkelion	Sewered Sanitation	1,400	2026–2030	120,000 (households and institutions)
Green Infrastructure for Flood Control and Recharge Zones	Water Resources Mgmt.	600	2026–2029	Watershed-wide benefits
Expansion of SCADA + Digital Utility Monitoring	Institutional Reform	400	2025–2027	System-wide KEWASCO operations
County FSM Transport Fleet (10 units + Maintenance Yard)	FSM/On-site Sanitation	390	2026–2028	Urban and rural sanitation coverage
Construction of 3 Water Quality Testing Labs (North, Central, South)	Institutional Capacity	300	2026–2028	100,000+ system beneficiaries
Rural-Urban Link Infrastructure (tankers + water kiosks)	Water Supply	300	2026–2029	Vulnerable peri-urban areas
Climate Resilient Reservoirs for Lowlands (2)	Climate Resilience	450	2027–2030	35,000 rural residents
Rehabilitation of Defunct Major Schemes (Chemasingi, etc.)	Water Supply	400	2026–2029	60,000

Source: NAWASSIP 2022-2030 (Appendix 6), Kericho County Integrated Water Masterplan

Total Batch 2 Comprising KES 7.94 billion in strategic, long-term capital projects, which require additional planning, co-financing, or donor engagement

4.4.4 Priority Sustainable and Climate-Resilient Investments

Given Kericho County's increasing vulnerability to climate change impacts, a significant portion of the investments has been earmarked specifically for climate-resilient infrastructure and systems. The table below highlights the major priority areas and their corresponding investment allocations to bolster adaptive capacity and service continuity under changing climatic conditions.

Table 4.22: The major priority areas and their corresponding investment allocations

Sector	Climate-Resilient Priority Investment	Indicative Cost (KES Million)
Water Supply	Drought-resilient groundwater systems, rainwater harvesting, energy-efficient pumping (solar)	1,100
Sanitation	Elevated latrines in flood zones, decentralized FSM treatment systems	1,000
Water Resources	Riparian protection, aquifer recharge projects, catchment rehabilitation	850
Institutional Resilience	Deployment of ERP/SCADA systems, climate-adaptive service planning frameworks	500

Summary: Over KSh 3.45 billion (approximately 28% of the total investment) is earmarked for direct climate resilience and sustainability interventions

4.4.5 Strategic Focus Areas for Sustainability

To ensure the effectiveness and sustainability of these investments, Kericho County will prioritize the following strategies:

- Integration of climate risk assessments in project designs.
- Promotion of pro-poor and gender-inclusive service delivery models.
- Enhancement of community-based operation and maintenance (O&M) systems.
- Strengthening public-private partnerships (PPP) for sanitation and FSM service delivery.
- Embedding water security, conservation, and resilience thinking across all county WASH programming.

4.4.6 Strategic Long-Term Water Infrastructure Vision

The CWSSIP recognizes the need for sustainable, scalable, and climate-resilient water supply systems beyond 2030 and identifies the Londiani Mega Water Supply Project as a transformative long-term intervention.

This visionary project proposes:

- Construction of a high-capacity trunk line following the major road network corridor from Londiani, enabling connection of multiple storage tanks, distribution nodes, and feeder lines developed under the short- and medium-term phases.
- Establishment of a centralized water treatment facility located in Londiani to treat bulk water sourced from local catchments, to be linked to community and peri-urban systems.
- Future integration with larger regional water supply systems such as the Bosto Dam and Itare Dam (currently under separate development initiatives) will enhance water security for Londiani, Kipkelion, and wider southern Kericho.

Mapping of Strategic Connections:

- The trunk main is to run along the Londiani–Kipkelion–Kericho Road.
- Treatment facilities near Londiani Town are elevated to optimize gravitational flow.
- Connections to short-term infrastructures, including new tanks at Londiani Urban Center, Chepsetoi, and Soget.

Visionary Objective: Establish Londiani as a key future water distribution hub, ensuring redundancy, resilience, and support for economic and demographic growth across Kipkelion East, Kipkelion West, Belgut, and Londiani regions.

4.5 Projected Inflows and Value Returns

To complement the cost estimates outlined in the investment plan, the CWSSIP includes an assessment of the projected inflows and value returns expected from key WASH investments. These inflows offer insight into the financial viability, operational sustainability, and development impact of the proposed interventions and are crucial for informing resource mobilization and project phasing. Projected inflows are categorized as follows:

- Direct financial inflows: Revenue-generating activities such as household water tariffs, vendor water sales, sewerage, and FSM service charges;

- Indirect financial returns: Operational savings (e.g., reduced NRW, solarization), improved utility efficiency, and public health cost reductions;
- Social and service value returns: Benefits such as reduced school absenteeism, improved maternal health, catchment resilience, and time savings for water collection.

These projections provide a foundation for safeguards categorization and co-financing discussions and demonstrate to potential financiers that many CWSSIP investments have clear return pathways.

Table 4.23: Summary of Projected Inflows and Value Returns by Investment Category

Project Category	Estimated Cost (KES M)	Primary Inflow Type	Return Pathway
KEWASCO Network Expansion	1,480.0	Direct financial (tariff revenue)	New connections, metered billing, service expansion
FSM Infrastructure (plant, units, yard)	250.0	Direct financial (service fees)	Desludging payments (KES 500–1,000 per trip)
Water Kiosks (Low-income settlements)	45.0	Direct financial (vendor fees)	Pay-per-use water access (KES 2–5 per 20L)
NRW Reduction & SCADA	208.0	Indirect financial (efficiency savings)	Reduced leakage, pressure control, and higher billed volume
Solarization of Boreholes	114.5	Indirect financial (OPEX savings)	Elimination of diesel costs, consistent supply
WASH in Institutions (Schools, HCFs)	790.0	Indirect social (health, education)	Reduced absenteeism, disease outbreaks, and MHM retention
Green Infrastructure & Catchment Protection	638.0	Indirect resilience/environmental	Flood avoidance, recharge preservation, and reduced sedimentation
Planning, GIS, and Governance Tools	84.0	Indirect planning/operational	Better resource allocation, investment targeting, and increased transparency
Youth-led Hygiene Facility Fabrication	9.5	Direct livelihood income	Local production and supply to markets, schools, and clinics

Annex 4: Projected Inflows and Value Returns presents the detailed inflow profiles for all Batch 1 and Batch 2 projects, including unit-level inflow logic, expected beneficiaries, and sustainability considerations.

These assessments strengthen the CWSSIP's investment case by linking financial inputs to measurable outcomes and setting the foundation for performance-based implementation and monitoring.

5.1 Strategic Objectives for the Sector

5.1.1 Vision and Key Priorities for Water, Sanitation, and Hygiene Services

5.1.1.1 Sector Vision

A healthy, climate-resilient, and economically empowered Kericho County where all residents have equitable and sustainable access to safe water, improved sanitation, and hygiene services by 2030.

5.1.1.2 Long-Term Goals for Water and Sanitation Service Provision

a) Universal access to safely managed water and sanitation by 2030, in both urban and rural areas, including underserved populations and climate-vulnerable communities.
b) Operationalization of a countywide climate-resilient WASH system, supported by local-level innovations, community structures, and sector-aligned financing.
c) Establishment of a strong institutional and governance framework to enhance performance, efficiency, and accountability across all service providers (public, private, and community-based).
d) Mainstreaming equity and gender inclusion in the design and delivery of water and sanitation services, with a specific focus on menstrual hygiene management (MHM), disability access, and informal settlement coverage.

5.1.1.3 Strategic Priorities Aligned with County and National Development Frameworks

These priorities align with the Kericho County Integrated Development Plan (CIDP), the National Water Strategy, the Vision 2030 social pillar, and the CWSSIP and PEF guidelines:

Table 5.1: Strategic Pillar and the Key Priorities

Strategic Pillar	Key Priorities
a) Universal Service Coverage	Expand piped water networks, increase school and market sanitation coverage, and scale FSM infrastructure.
b) Sector Governance & Institutional Strengthening	Build capacity of county WASH departments, WRUAs, and CBOs; improve M&E and coordination.
c) Climate Resilience and Environmental Stewardship	Protect watersheds, promote MUS, integrate WRUA SCMPs, and flood and drought-proof systems
d) Inclusive and Safe WASH Services	Implement gender-inclusive design, universal access standards, and MHM support in institutions
e) Financing for Sustainability	Mobilize domestic and external financing, introduce performance-based funding, and blended finance PPPs

5.1.2 Alignment with Kenya's National Water Strategy, National Financing Plan (NAWASIP), and SDG 6 Goals

The Kericho County Water and Sanitation Strategy and Investment Plan (CWSSIP) is fully aligned with national and global development frameworks, ensuring that local interventions contribute to broader sectoral and socio-economic objectives. Specifically, the CWSSIP supports:

- Sustainable Development Goal (SDG) 6: Promoting universal access to clean water and sanitation by 2030, with a strong emphasis on safely managed services and addressing inequalities.
- National Water and Sanitation Investment Program (NAWASIP): Operationalizing Kericho's priority projects within the National Program Expenditure Framework (PEF), with defined financial envelopes for water supply, sanitation, fecal sludge management (FSM), and institutional capacity strengthening.
- Kenya Vision 2030: Contributing to the social pillar through expanded urban and rural WASH access, reduction of non-revenue water (NRW), and development of climate-smart sanitation systems.
- Lake Region Economic Bloc (LREB) Framework: Advancing regional integration through cross-county water resource management and WASH infrastructure investment synergies.
- Africa Agenda 2063: Supporting continental goals for inclusive growth, environmental sustainability, and universal WASH access.
- Bottom-Up Economic Transformation Agenda (BETA): Enhancing equitable access to water and sanitation as a driver for economic empowerment, health improvement, and local livelihoods.
- Kericho County Integrated Development Plan (CIDP III, 2023–2027): Anchoring CWSSIP investments within the county's strategic development priorities, especially under the infrastructure, health, and climate resilience sectors.

Summary: The CWSSIP strategically positions Kericho County to contribute meaningfully to Kenya's national WASH targets and global development commitments, while addressing local service delivery gaps in a sustainable, climate-resilient, and inclusive manner.

5.1.2.1 Contribution to National and Global Targets

The CWSSIP contributes directly to national and global water and sanitation goals through the following programmatic areas:

Table 5.2: Contribution to National and Global Targets

Strategic Target Area	CWSSIP Contribution
Universal Access to WASH	Targets 100% access to basic water and sanitation services by 2030 through phased investments in rural and urban areas.
WASH Governance and Regulation	Aligns with the National Water Strategy by institutionalizing performance monitoring, utility regulation, and WRUA-WUA integration.
Climate-Resilient WASH Systems	Promotes sustainable and adaptive systems, including MUS, source protection, and nature-based solutions.
Water Sector Financing	Aligns with NAWASIP, PEF by costing priority infrastructure and proposing a multi-source financing strategy, including PPPs.
Equity and Inclusion	Prioritizes gender-responsive MHM, accessible school/HCF toilets, and pro-poor financing tools.

The plan also supports the National Climate Change Action Plan (NCCAP) by embedding climate risk screening and resilience measures in infrastructure design and water resource management.

5.1.2.2 Alignment with Key Commitments under Sustainable Development Goal 6

Table 5.3: The CWSSIP Alignment with Key Commitments under Sustainable Development Goal 6

SDG 6 Target	CWSSIP Response
6.1 – Universal access to safe and affordable drinking water	Investments in piped networks, boreholes, and communal sources in underserved wards
6.2 – Access to adequate sanitation and hygiene, with special attention to women and vulnerable groups	Implementation of FSM systems, inclusive public sanitation, and menstrual hygiene support
6.3 – Improved water quality and reduced pollution	Expansion of sewerage systems, decentralized treatment, and faecal sludge treatment plants
6.4 – Increased water-use efficiency and sustainable withdrawals	Support for MUS, WRUA catchment plans, rainwater harvesting, and solar pumping
6.5 – Integrated water resources management	Full integration of WRUA SCMPs, climate data, and land use into WASH planning
6. a & 6.b – International cooperation and community participation	Promotes county–donor partnerships, WRUA and WUA engagement, and local project co-financing mechanisms

5.1.2.3 Summary of Key Alignment Milestones

Table 5.4: Summary of Key Alignment Milestones

National/Global Plan	Alignment Achieved in CWSSIP
Kenya National Water Strategy	Sector-wide governance, M&E, O&M funding, and utility performance targets
NAWASIP Expenditure Framework	Full integration of Kericho's prioritized infrastructure and reform projects
SDG 6 Global Commitments	Indicators mapped to the CWSSIP logframe and included in the CWSSIP M&E strategy.

By aligning with Kenya's sectoral frameworks and the SDG 6 agenda, the CWSSIP ensures that water and sanitation interventions not only address local service gaps but also contribute meaningfully to the country's commitment to sustainable, equitable, and resilient development.

5.1.3 Cross-Sectoral Integration, Including Climate Resilience and Environmental Conservation

Achieving sustainable and inclusive water and sanitation service delivery in Kericho County requires strong coordination across sectors, particularly health, education, agriculture, and climate change adaptation. Water is not only a basic human right but also a key enabler of environmental health, agricultural productivity, and public health. The CWSSIP, therefore, promotes a multi-sectoral, systems-based approach to planning, implementation, and monitoring.

5.1.3.1 Role of Water in Environmental Sustainability

Water is central to Kericho's ecological and economic systems:

- It sustains agriculture, particularly tea farming, dairy production, and subsistence horticulture.
- It supports biodiversity conservation within key catchments such as Upper Kipsonoi, Timbilil, and Sise, which feed the larger Sondu and Nyando river basins.

- Water-related interventions also influence soil stability, erosion control, and wetland integrity, which are vital for long-term climate regulation and natural resource management.

Riparian zone degradation, wetland encroachment, over-abstraction, and pollution (particularly from untreated faecal sludge) threaten these systems. The CWSSIP aligns with Kericho County's Environmental Management Plan and leverages the SCMPs developed by WRUAs to integrate environmental safeguards into all water infrastructure projects.

5.1.3.2 Coordination with Other Sectors

The CWSSIP promotes structured collaboration with the following sectors:

Table 5.5: Coordination with Other Sectors

Sector	Areas of Coordination
Health	Infection prevention in health care facilities, hygiene promotion, MHM, IPC infrastructure
Education	WASH in schools (WinS), MHM, WASH Clubs, school gardens (MUS integration)
Agriculture	Multiple Use Water Services (MUS), livestock watering, and climate-smart irrigation
Environment	Watershed management, erosion control, WRUA coordination, riparian protection
Climate Change	Resilience planning under the County Climate Change Fund and FLLoCA programs
Disaster Risk Reduction (DRR)	Flood risk mapping, water source protection, emergency WASH services

The CWSSIP institutionalizes these linkages through the proposed County WASH Multi-Stakeholder Steering Committee, which will include representatives from key departments and community organizations.

5.1.3.3 Climate Adaptation and Resilience Building Measures

Kericho faces increasing water stress due to rising temperatures, erratic rainfall, and extreme weather events, particularly in low-lying and erosion-prone zones. The CWSSIP integrates climate resilience through:

Table 5.6: Climate Adaptation and Resilience Building Measures

Intervention Area	Adaptation/Resilience Strategy
Infrastructure Design	Elevation of latrines and intake points, water harvesting systems, and overflow protections
Water Security	Diversification of water sources (solarized boreholes, rainwater, protected springs)
Ecosystem Protection	Tree planting, spring fencing, wetland zoning, and buffer zones
Catchment-Level Planning	Integration of WRUA SCMPs, with upstream-downstream abstraction controls and land use zoning
Flood and Drought Preparedness	Ward-level emergency WASH protocols, water trucking strategies, and mobile toilets
MUS System Expansion	Promote resilient and dual-purpose water infrastructure for domestic and productive uses.

Climate financing windows such as FLLoCA, the County Climate Change Fund (CCCF), and results-based financing through WSTF and WRMA will be leveraged to fund resilience-enhancing investments.

By embedding cross-sectoral planning, climate adaptation, and environmental conservation into all aspects of WASH service delivery, the CWSSIP ensures that water and sanitation investments yield co-benefits in public health, economic development, gender equality, and ecosystem sustainability—in line with SDG 6, SDG 13, and Kenya's Vision 2030.

5.2 Water Supply Infrastructure Investment Plan

5.2.1 Planned projects for new water supply systems and rehabilitation of existing ones

Expanding access to reliable, safe, and climate-resilient water supply services is a key pillar of the CWSSIP.

Priority projects have been selected based on:

- Service coverage gaps identified during the baseline assessment.
- Infrastructure vulnerability to climate risks (droughts, floods, land degradation).
- Alignment with the Performance Enhancement Framework (PEF) and NAWASIP targets.

The following table outlines the planned investments in new water supply systems and rehabilitation of existing schemes across Kericho County.

5.2.1.1 Urban and Large Growth Center Water Supply Expansion

Urban and major market centers face increasing water demand driven by rapid urbanization and economic growth. These projects focus on expanding and upgrading piped water systems in Kericho Town, Litein, Londiani, and surrounding centers.

Table 5.7: Urban and Large Growth Center Water Supply Expansion

No.	Project Name	Location	Key Components	Cost (KES Million)	Timeline
1	Kimugu Water Supply Expansion	Kericho Town	Treatment plant augmentation, network expansion, and additional reservoirs	1,200	2025–2027
2	Londiani Water Supply Rehabilitation	Kipkelion East	Borehole development, new pumps, network expansion	350	2025–2027
3	Litein Water Supply Enhancement	Bureti	Source augmentation, storage tanks, and network expansion	300	2025–2027
4	Kipkelion Urban Water Scheme Rehabilitation	Kipkelion West	Network rehabilitation, smart metering	250	2026–2028
5	Cheboin Water Supply Expansion	Belgut	Borehole development, network upgrades	220	2025–2027

5.2.1.2 Rural Water Supply Rehabilitation Projects

These projects aim to rehabilitate existing rural piped systems and extend coverage to underserved communities, focusing on climate resilience and reliability.

Table 5.8: Rural Water Supply Rehabilitation Projects

No.	Project Name	Location	Key Components	Cost (KES Million)	Timeline
6	Kusumek Water Supply Rehabilitation	Kipkelion/Belgut	Intake repair, new distribution lines	480	2025–2026
7	Seretut-Tegat Water Project Extension	Bureti	Reservoir construction, network extension	290	2026–2028
8	Cheplanget Water Supply Upgrading	Bureti	Intake works, storage improvement	220	2025–2027
9	Kiptere Water Scheme Rehabilitation	Belgut	Treatment works installation, network upgrade	240	2026–2028
10	Motiret Water Supply System	Kipkelion	Borehole development, solar pumping	180	2025–2027

5.2.1.3 Borehole-Based Rural Water Supply Projects

Focused on enhancing drought resilience and expanding basic access in remote areas through solarized boreholes and small-scale rural water schemes.

Table 5.9: Borehole-Based Rural Water Supply Projects

No.	Project Name	Location	Key Components	Cost (KES Million)	Timeline
11	Taiwet Community Water Project	Soin/Sigowet	Borehole, solar pump, storage	180	2025–2026
12	Chesingoro Water Project	Kipkelion East	Borehole drilling, community network	150	2026–2027
13	Soin Dispensary Water Project	Soin/Sigowet	Borehole, storage tanks for the health center	80	2025–2026
14	Chepseon Market Water Supply	Kipkelion East	New borehole and network	200	2026–2028
15	Tiluet Community Water Project	Belgut	Borehole installation and extension	160	2026–2027

5.2.1.4 Institutional Water Supply Projects

Targeted investments in rainwater harvesting and small piped systems for schools, healthcare centers, and markets to strengthen service resilience.

Table 5.10: Institutional Water Supply Projects

No.	Project Name	Location	Key Components	Cost (KES Million)	Timeline
16	Countywide Rainwater Harvesting Program for Schools and HCFs	All Sub-Counties	Roof catchment systems, elevated tanks	320	2025–2028
17	Londiani Health Center Water Supply	Kipkelion East	Borehole rehabilitation, storage, and filtration	90	2025–2026
18	Kericho Referral Hospital Water System Upgrade	Ainamoi	Backup borehole and water storage tanks	150	2025–2027

5.2.2 Consideration of MUS/WASH+ Approaches in Design and Implementation

Recognizing the interdependence between water, sanitation, hygiene, and livelihoods, the CWSSIP integrates Multiple Use Services (MUS) and WASH+ principles across all water supply projects. This ensures that investments not only meet domestic water needs but also support livestock watering, small-scale irrigation, and enhanced hygiene and sanitation outcomes.

The MUS/WASH+ approach is critical for promoting climate resilience, economic empowerment, and improved public health, especially in rural and peri-urban communities highly vulnerable to climate variability.

5.2.2.1 Integrated Planning for Climate-Resilient Multiple-Use Water Schemes

Key features of the MUS-integrated designs include:

Table 5.11: Integrated Planning for Climate-Resilient Multiple-Use Water Schemes

Design Aspect	Integration Strategy	Climate Resilience Focus
Source Development	Boreholes, springs, and rainwater systems designed for dual use (domestic + productive)	Protection against drought and seasonal depletion
Storage Infrastructure	Elevated tanks sized for both household and small-scale productive needs	Increased storage for dry seasons
Distribution Networks	Provision of water points near homesteads and communal livestock points	Reduced stress during dry periods, improved access
Water Use Prioritization Protocols	Community-developed protocols for equitable sharing during water stress periods	Conflict mitigation and adaptive management

Examples:

- Taiwet Community Water Project: Designed for 60% domestic use, 40% livestock use, and kitchen gardening.
- Seretut-Tegat Scheme: Includes standpipes at key communal livestock watering points.

5.2.2.2 Inclusion of Hygiene and Sanitation Components in Water Projects (WASH+)

To maximize health impacts and service sustainability, all CWSSIP water projects integrate hygiene and sanitation promotion as core components:

Table 5.12: Inclusion of Hygiene and Sanitation Components in Water Projects (WASH+)

WASH+ Component	Implementation Strategy
Hygiene Promotion	Hygiene education campaigns alongside infrastructure rollout (handwashing, safe storage practices).
Sanitation Facilities	Integration of public toilets and sanitation facilities in market centers and schools linked to new water systems.
Handwashing Facilities	Construction of handwashing stations at community water points, schools, and health centers.
Behavior Change Communication (BCC)	Targeted campaigns to improve water handling, menstrual hygiene, and open defecation elimination.

Examples:

- Countywide Rainwater Harvesting Program for Schools and HCFs: Bundled with latrine blocks, MHM rooms, and handwashing stations.
- Londiani Water System Upgrade: Integrated hygiene education for households connected to the new system.

5.2.2.3 Strategic Benefits of MUS/WASH+ Integration

- Economic empowerment: Supporting kitchen gardening, livestock rearing, and *small*-scale livelihoods.
- Climate adaptation: Strengthening community resilience to drought and water scarcity shocks.
- Health improvement: Reducing the incidence of waterborne diseases through safe water, hygiene, and sanitation linkages.
- Gender inclusion: Reducing water collection burdens on women and girls; supporting menstrual hygiene management.

5.2.3 Detailed Project List: Investments, Costs, Beneficiaries, Risks, and Mitigation

The risk assessments presented in **Tables 5.12 and 5.13** highlight key considerations for the successful implementation of both **investment-ready (Batch 1)** and **long-term strategic (Batch 2)** water supply projects under the CWSSIP. While relatively low-risk and small to medium-scale, Batch 1 projects still face challenges related to technical supervision, post-construction maintenance, and equitable service distribution.

Batch 2 projects—such as bulk water supply, regional sewerage systems, and climate-resilient reservoirs—are capital-intensive and involve higher environmental, social, and financial risks. Many of these require Environmental and Social Impact Assessments (ESIAs), land acquisition planning, inter-agency coordination, and robust institutional readiness.

To mitigate these risks, the CWSSIP proposes:

- **Early safeguards screening** and integration of mitigation measures during design.
- **Phased implementation** for high-cost items.
- Strengthened stakeholder engagement through WRUAs, KEWASCO, and local committees.
- Enhanced financing mechanisms, including blended funding and performance-based allocations.

This approach will ensure that investments expand coverage in a safe, inclusive, and sustainable manner.

Table 5.13: Risk Matrix for Batch 1 Water Project

Project	Technical Risk	Environmental/Climate Risk	Social/Land Risk	Financial/Institutional Risk
Kipkelion Rural Piped Scheme	Moderate – rugged terrain	Low – gravity-fed, forest edge	Moderate – communal land use	Moderate – WRUA capacity building needed
Chepkositonik Gravity Scheme Rehab	Low – existing alignment	Low – low erosion zone	Low – scheme pre-existing	Low – community-managed, strong WRUA
Kusumek Rural Expansion	Moderate – aging intake	High – flood-prone catchment	Moderate – land near intake	Moderate – weak O&M records
Cheboin Water Supply	Moderate – design updates needed	Moderate – drought-prone area	Moderate – land acquisition for storage	High – unclear tariff model

Borehole Solarization (40 sites)	Low – solar-ready	High – drought sensitivity	Low – sites pre-identified	Moderate – post-installation maintenance
Spring Protection Program	Low – simple tech	Low – minor runoff impacts	Low – strong community support	Low – CBO-driven
Kiptewit–Sosiot Gravity Scheme	Moderate – long pipeline alignment	Moderate – hilly terrain, potential landslides	High – land crossing multiple community parcels	Moderate – requires multi-village management support
Pipeline Extensions in Ainamoi	Low – extensions of existing lines	High – water stress in dry seasons	Moderate – urban encroachment risk	Moderate – KEWASCO operational stretch
WASH in Markets (20 rural market sites)	Low – small-scale systems	Moderate – waste handling issues	Moderate – competing vendor use	High – unclear facility O&M framework
Water Kiosks for Low-Income Areas (30 sites)	Low – standardized units	Moderate – vandalism/flooding in informal areas	Moderate – allocation equity	High – revenue collection challenges
Mobile Desludging Unit – Kipkelion (1 No.)	Low – mobile solution	Low – low exposure to flood damage	Low – no land required	Moderate – O&M/logistics planning needed
Sanitation Block Upgrades in 15 ECDEs	Low – standardized models	Low – minimal environmental exposure	Low – sites under county ownership	Moderate – M&O transfer to school boards
SCADA Expansion – Remote Monitoring (Phase II)	Moderate – requires ICT and utility integration	Low – minimal physical exposure	Low – utility-managed infrastructure	Moderate – dependent on IT/technical capacity at KEWASCO
Market-Based Hand Hygiene Stations (15 sites)	Low – prefabricated systems	Moderate – seasonal flooding risk in open markets	Low – within public areas	Moderate – unclear local maintenance responsibility
Londiani Faecal Sludge Collection Vehicles (2 units)	Low – mobile and adaptable	Low – negligible climate exposure	Low – no land acquisition needed	Moderate – requires trained staff, fuel, and routing system
Stormwater Drainage Works – Belgut Market	Moderate – engineering-sensitive to slope and runoff volumes	High – heavy flood exposure	Moderate – market encroachments	Moderate – needs strong county engineering oversight
Community-Based MHM Centers (4 pilots)	Low – community facilities	Low – not flood-prone	Moderate – cultural sensitivity in rollout	Moderate – O&M will depend on user groups or CBOs
Gender and Disability WASH Audits (Pilot – 4 wards)	Low – desktop and field-based assessments	Low – N/A	Low – consultative process	Low – one-time budget line, no recurring costs
Rainwater Harvesting Tanks (70 sites)	Low – standard rooftop collection	Moderate – variability in rainfall volumes	Low – school and institutional premises	Moderate – long-term maintenance responsibilities fall on schools/health facilities.
Solarization of 10 Additional Boreholes	Low – technically proven approach	High vulnerable to prolonged drought	Low – uses existing borehole footprints	Moderate – solar component servicing needed
County Water Safety Planning Toolkit (Rollout)	Low – administrative/operational	Low – not climate-sensitive	Low – no land or physical impact	Low – centrally coordinated through Dept. of Health and WASH Unit

Ward-Level WASH Investment Committees (25 Wards)	Low – organizational support	Low – non-physical investment	Low – fully participatory process	Moderate – sustainability depends on recurrent county funding
Local Fabrication of Handwashing Units (Youth-led)	Low – simple local designs	Low – not flood-sensitive	Low – promotes youth employment	Moderate – requires market linkage and follow-up support
GIS Mapping of WASH Assets & Expansion Zones	Moderate – digital capacity needs	Low – system-based	Low – no land impact	Moderate – requires staff training and system integration
County Catchment Management Support Program (8 WRUAs)	Moderate – coordination across WRUAs	High – exposed to land use change, erosion	Moderate – inter-community collaboration needed	Moderate – WRUA capacity and financing challenges
Londiani Mega Water Supply Project (bulk + trunkline)	High – complex engineering	High – source yield and flood risk	High – land acquisition and settlement impact	High – requires co-financing and long-term O&M
Bosto Dam Link and Regional Water Transfer System	High – large-scale inter-county system	High – sedimentation and aquatic impacts	High – inter-county coordination, RAP required	High – substantial capital investment
Regional Sewerage Systems – Kericho Town & Kipkelion	Moderate – network phasing needed	High – flooding in low-lying areas	High – land for WWTP and public acceptance	High – sewer revenue recovery required
County FSM Transport Fleet (10 units + Maintenance Yard)	Low – proven model	Low – mobile units, low hazard	Moderate – yard siting in peri-urban areas	Moderate – logistical planning and budgeting
Green Infrastructure for Flood Control and Recharge Zones	Moderate – needs ecological planning	High – sensitive to land use and rainfall	Moderate – requires WRUA buy-in and fencing	Moderate – long-term financing needed
Expansion of SCADA + Utility Monitoring Systems	Moderate – utility system compatibility	Low – digital infrastructure	Low – no land or social impact	Moderate – technical training and budget
Construction of 3 Water Quality Testing Labs (North, Central, South)	Moderate – lab design standards	Low – indoor infrastructure	Low – built on public land	Moderate – needs operational budget and lab staff
Rural–Urban Link Infrastructure (tankers, kiosks)	Low – flexible system	Moderate – sensitive to fuel/drought pricing	Moderate – community acceptance of tankers	Moderate – O&M and tariff recovery challenges
Climate Resilient Reservoirs for Lowlands (2)	High – hydro-technical expertise	High – drought cycles and water loss risk	High – land acquisition and potential displacement	High – long-term construction and cost recovery
Rehabilitation of Defunct Major Schemes (e.g., Chemasingi)	Moderate – old infrastructure variability	Moderate – erosion and runoff	Moderate – boundary disputes over pipeline	Moderate – requires subsidy to reactivate
Review & Updating of County Sewer Master Plan	Low – technical consultancy-based	Low – no environmental exposure	Low – no land or resettlement required	Low – budgeted as part of policy support

Table 5.14: Risk Matrix for Batch 2 Water Project

Project	Technical Risk	Environmental/Climate Risk	Social/Land Risk	Financial/Institutional Risk
Londiani Mega Water Supply Project (bulk + trunkline)	High – complex engineering	High – source yield and flood risk	High – land acquisition and settlement impact	High – requires co-financing and long-term O&M
Bosto Dam Link and Regional Water Transfer System	High – large-scale inter-county system	High – sedimentation and aquatic impacts	High – inter-county coordination, RAP required	High – substantial capital investment
Regional Sewerage Systems – Kericho Town & Kipkelion	Moderate – network phasing needed	High – flooding in low-lying areas	High – land for WWTP and public acceptance	High – sewer revenue recovery required
County FSM Transport Fleet (10 units + Maintenance Yard)	Low – proven model	Low – mobile units, low hazard	Moderate – yard siting in peri-urban areas	Moderate – logistical planning and budgeting
Green Infrastructure for Flood Control and Recharge Zones	Moderate – needs ecological planning	High – sensitive to land use and rainfall	Moderate – requires WRUA buy-in and fencing	Moderate – long-term financing needed
Expansion of SCADA + Utility Monitoring Systems	Moderate – utility system compatibility	Low – digital infrastructure	Low – no land or social impact	Moderate – technical training and budget
Project	**Technical Risk**	**Environmental/Climate Risk**	**Social/Land Risk**	**Financial/Institutional Risk**
Construction of 3 Water Quality Testing Labs (North, Central, South)	Moderate – lab design standards	Low – indoor infrastructure	Low – built on public land	Moderate – needs operational budget and lab staff
Rural–Urban Link Infrastructure (tankers, kiosks)	Low – flexible system	Moderate – sensitive to fuel/drought pricing	Moderate – community acceptance of tankers	Moderate – O&M and tariff recovery challenges
Climate Resilient Reservoirs for Lowlands (2)	High – hydro-technical expertise	High – drought cycles and water loss risk	High – land acquisition and potential displacement	High – long-term construction and cost recovery
Rehabilitation of Defunct Major Schemes (e.g., Chemasingi)	Moderate – old infrastructure variability	Moderate – erosion and runoff	Moderate – boundary disputes over pipeline	Moderate – requires subsidy to reactivate
Review & Updating of County Sewer Master Plan	Low – technical consultancy-based	Low – no environmental exposure	Low – no land or resettlement required	Low – budgeted as part of policy support

5.3 Sanitation and Hygiene Services Investment Plan

Kericho County faces significant sanitation service delivery challenges, particularly:

- Low sewerage coverage (~6% currently),
- High reliance on shared and unimproved sanitation in rural and peri-urban areas,
- Absence of structured fecal sludge management (FSM) systems.

This Plan prioritizes strategic investments across the sanitation value chain — from containment to treatment and safe disposal — focusing on sustainable, climate-resilient, and inclusive sanitation services.

5.3.1 Priority Sanitation Projects

The following sanitation projects have been identified, building upon gaps highlighted in the PEF, Annex 1, and CWSSIP field assessments.

5.3.1.1 Sewerage and Wastewater Management Projects

Table 5.15: the Key Sewerage Network Expansion and Rehabilitation (Urban)

No.	Project Name	Location	Key Components	Cost (KES Million)	Timeline
1	Expansion of Kericho Town Sewer Network	Kericho Municipality (CBD and suburbs)	Trunk sewer extension, household connections, sewer rehabilitation	900	2025–2027
2	Construction of New Wastewater Treatment Plant	Kericho Town	New stabilization ponds and mechanical treatment system	650	2025–2028
3	Sewer Extension in Litein Urban Center	Bureti	Trunk mains, decentralized treatment units	300	2026–2028
4	Sewerage Pilot Project in Londiani	Kipkelion East	Compact sewer network + decentralized wastewater treatment system (DEWATS)	250	2026–2028

5.3.1.2 FSM and Non-Sewered Solutions

Table 5.16: Non-Sewered Sanitation and Fecal Sludge Management (FSM)

No.	Project Name	Location	Key Components	Cost (KES Million)	Timeline
5	Development of Countywide FSM Strategy and Regulations	Countywide	FSM policy development, operator licensing framework	50	2025
6	Establishment of 3 Fecal Sludge Treatment Plants (FSTPs)	Kericho Town, Litein, Londiani	FSM plants (dewatering units, digesters, drying beds)	600	2025–2028
7	Construction of 120 Public Sanitation Blocks	Urban centers, markets, schools	Gender-inclusive public toilets, handwashing facilities	500	2025–2028
8	Mobile FSM Units for Rural and Peri-Urban Areas	Countywide	Procurement of sludge vacuum trucks and portable de-sludging equipment	150	2025–2027
9	Behavior Change and Hygiene Promotion Campaigns	Countywide	Community sanitation sensitization, market-based sanitation models	100	2025–2027

5.3.1.3 Integrated Investment Summary

Table 5.17: Integrated Investment Summary

Investment Focus Area	Estimated Investment (KES Million)
Sewerage Expansion and Wastewater Treatment	2,100
Non-Sewered Sanitation and FSM	1,400

Total Sanitation Sector Investment	3,500

Insight: The sanitation investments represent approximately 28% of the total CWSSIP investment envelope

5.3.1.4 Climate-Resilient and Sustainable FSM Investments

All proposed sanitation investments integrate resilience measures against floods, droughts, and climate variability:

Table 5.18: Climate-Resilient and Sustainable FSM Investments

Climate Challenge	Risk to Sanitation Infrastructure	Resilience Strategy
Flooding	Overflow and collapse of pits and septic systems	Elevated latrine slabs, DEWATS in flood-prone towns
Prolonged droughts	Water scarcity affecting flushing systems	Dry sanitation options, eco-toilets
Rising groundwater levels	Latrine contamination risks	Lined pits, above-ground FSTP construction

Focus Areas:

- Decentralized FSM plants reduce pressure on centralized sewer systems.
- Sanitation designs integrate safe siting, flood protection, and sludge reuse opportunities (e.g., composting).

Expected Outcomes by 2030

- Sewerage coverage increased from ~6% to ~20% in urban centers.
- 120 additional public sanitation facilities constructed and operational.
- Establishment of a regulated FSM market with at least 3 licensed operators.
- Reduction in open defecation rates below 1% countywide.
- Universal access to improved sanitation services in institutions (schools, HCFs)

5.3.2 Behavioral Change and Market-Based Sanitation Initiatives

5.3.2.1 Strategies for Promoting Improved Sanitation Practices (Behavioral Change)

Behavioral change is crucial for achieving universal sanitation coverage in Kericho County. Infrastructure development must be accompanied by targeted strategies that drive household adoption of improved sanitation facilities and hygienic practices.

The CWSSIP will implement the following behavior change promotion strategies:

Table 5.19: Strategies for Promoting Improved Sanitation Practices (Behavioral Change)

Strategy	Description
Community-Led Total Sanitation (CLTS) Scaling	Roll out CLTS programs in rural and peri-urban areas to eliminate open defecation and promote latrine construction.

Sanitation Marketing (SanMark) Campaigns	Develop customized, locally adapted marketing campaigns showcasing aspirational sanitation products and affordable upgrading options.
School-Based WASH Clubs	Strengthen WASH education in schools to promote early adoption of sanitation and hygiene behaviors among children.
Public Sanitation Advocacy	Utilize radio, community barazas, and social media to promote the benefits of safe sanitation and fecal sludge management (FSM).
Women and Youth Engagement	Mobilize women and youth groups as sanitation champions, sales agents, and community mobilizers.

Expected Impact:

- Increased household demand for improved sanitation.
- Sustained behavior change regarding latrine use, handwashing, and safe disposal practices.
- Enhanced community ownership and local leadership for sanitation.

5.3.2.2 Strategies for Promoting Private Sector Participation in Sanitation Service Delivery

To strengthen the supply side of sanitation services and foster sustainability, CWSSIP prioritizes growing private sector involvement across the sanitation value chain (construction, emptying, transport, treatment, reuse). The following strategies will be deployed:

Table 5.20: Strategies for Promoting Private Sector Participation in Sanitation Service Delivery

Strategy	Description
Licensing of Private FSM Operators	Formalize and license private desludging operators, linked to county Fecal Sludge Treatment Plants (FSTPs).
Public-Private Partnerships (PPPs) in Public Toilet Management	Engage private sector actors to operate and maintain public sanitation blocks through concession or management contracts.
Sanitation Entrepreneurship Development	Build capacity of local masons, artisans, and small contractors to produce and market affordable improved latrines and sanitation solutions.
Incentivized Investment Schemes	Offer partial subsidies, credit guarantees, or tax incentives to private entities investing in sanitation hardware, FSM equipment, or innovative sanitation solutions.
Market Facilitation Platforms	Establish regular county sanitation fairs, expos, and sanitation marketplaces to connect consumers, suppliers, and service providers.

Expected Impact:

- Creation of a vibrant sanitation market ecosystem.
- Improved access to a wider range of affordable sanitation products and services.
- Increased private sector investment in sanitation infrastructure and service delivery.

5.3.3 WASH Investments for Schools and Healthcare Facilities

Schools and healthcare facilities (HCFs) serve as critical access points for water, sanitation, and hygiene (WASH) services, particularly for vulnerable populations including children, women, persons with disabilities (PWDs), and marginalized communities.
Investments in these public institutions are essential for health and dignity, educational attainment, infection prevention, gender equality, and community resilience.

This Plan prioritizes improving inclusive hygiene infrastructure, safeguarding sanitation facilities from loss or degradation, integrating circular economy principles, and strengthening Menstrual Hygiene Management (MHM) programs.

5.3.3.1 Priority WASH Investment Strategies for Schools and HCFs

Table 5.21: Priority WASH Investment Strategies for Schools and HCFs

Investment Focus	Key Components	Climate and Inclusion Features
Inclusive Sanitation Infrastructure	Gender-segregated latrines, PWD-accessible toilets, age-appropriate designs	Raised structures to prevent flood damage, ramps, and handrails for PWD access
Resilient Water Supply Systems	Rainwater harvesting, solar-powered boreholes, and elevated storage tanks	Backup supply during droughts, integrated water safety planning
Menstrual Hygiene Management (MHM) Facilities	MHM rooms with water access, disposal bins, and private changing spaces	MHM integration in sanitation blocks, linked to girl-friendly school WASH
Circular Economy Approaches	Eco-toilets (dry/composting toilets), safe reuse of treated waste (e.g., for agriculture)	Resource recovery models piloted in selected schools
Hygiene Promotion and Behavior Change	Hygiene education campaigns, WASH clubs in schools, Infection Prevention and Control (IPC) protocols in HCFs	Continuous hygiene practices reinforcement, pandemic-resilient IPC systems

5.3.3.2 Priority Projects, Estimated Costs, and Target Beneficiaries

Table 5.22: Priority Projects, Estimated Costs, and Target Beneficiaries

No.	Project Name	Institution Type	Estimated Cost (KES Million)	Target Institutions/Beneficiaries	Special Features
1	Countywide Rainwater Harvesting Program for Schools	Schools	180	50 schools (~25,000 pupils)	Elevated tanks, solar pumping systems
2	Rehabilitation and Construction of Inclusive Toilets	Schools, HCFs	400	70 schools and 30 HCFs (~35,000 users)	Gender-segregated, PWD-accessible latrines
3	Menstrual Hygiene Management (MHM) Program	Schools, select HCFs	120	60 schools, 20 HCFs (~30,000 girls and women)	MHM rooms, awareness training
4	Eco-Sanitation Pilot Projects	Select schools	150	15 schools (~7,500 pupils)	Dry toilets, composting units
5	WASH Behavior Change and IPC Training	Schools and HCFs	100	All target institutions (~50,000 users)	Hygiene clubs, IPC reinforcement for health workers

Total WASH Investment for Institutions: ~KSh 950 Million

5.3.3.3 Inclusive and Resilient Design Focus

To ensure WASH infrastructure benefits all users sustainably:

- All new and rehabilitated sanitation blocks will include PWD-accessibility features (e.g., ramps, handrails, wider doors).
- Climate risks (flooding, drought) will be integrated into designs through elevated toilets, rainwater harvesting, and alternative water sources.

- MHM facilities will prioritize privacy, safety, and dignwhich are ity, linked to overall girl-friendly school policies.

5.3.3.4 Circular Economy Opportunities

The Plan promotes eco-sanitation solutions to:

- Convert human waste into safe compost for use in school gardens or community agriculture (where culturally acceptable).
- Reduce pressure on scarce water resources through dry sanitation innovations.
- Strengthen environmental sustainability by minimizing untreated waste discharge.

Pilot Sitwill: 15 schools to implement composting toilets linked to agricultural demonstration gardens by 2027.

5.3.3.5 Strategic Outcomes by 2030

- 100% of targeted schools and HCFs with functional, inclusive WASH facilities.
- 100% of schools are implementing MHM programs.
- 50% reduction in toilet loss/deterioration rates through improved maintenance and resilience measures.
- Pilot eco-sanitation models demonstrating circular economy viability.

5.3.4 Key Project List, Costs, Climate Resilience, and Risk Mitigation

5.3.4.1 Water Supply Infrastructure Projects

Table 5.23: Water Supply Infrastructure Projects

No.	Project Name	Location	Key Components	Estimated Cost (KES Million)	Climate Resilience Justification	Risk Mitigation Measures
1	Kimugu Water Supply Expansion	Kericho Town	Treatment plant upgrade, new reservoirs, network extension	1,200	Flood-proof intakes, elevated storage, energy-efficient pumps	EIA compliance, easement negotiations
2	Londiani Water Supply Rehabilitation	Kipkelion East	Boreholes, pumps, and network upgrades	350	Solar-powered boreholes, backup storage	Water quality monitoring, abstraction control
3	Litein Water Supply Enhancement	Bureti	Source upgrade, storage improvement	300	Dual-source redundancy for drought resilience	Leak detection, fast repairs program
4	Seretut-Tegat Water Extension	Bureti	New piped network, reservoirs	290	Elevated reservoirs, climate-resilient pipe routing	Stakeholder land agreements
5	Taiwet Community Water Project	Soin/Sigowet	Borehole drilling, solarized pumping	180	Groundwater recharge protection, solar energy	Groundwater abstraction licensing

5.3.4.2 Sanitation and FSM Projects

5.3.5 – Sanitation and Hygiene Investment Risks

The sanitation and hygiene investments under the CWSSIP have been assessed for technical, environmental, social, and financial risks across both Batch 1 (investment-ready) and Batch 2 (long-term capital) projects.

Batch 1 projects, such as ECDE sanitation block upgrades, hygiene stations, and school/HCF WASH interventions, present low technical and land-related risks due to their scale and institutional hosting. However, financial sustainability remains a concern, especially where maintenance responsibilities are unclear or reliant on overstretched school or public health budgets.

Batch 2 sanitation projects—including regional sewerage systems, wastewater treatment plants (WWTPs), and faecal sludge management (FSM) infrastructure—carry significantly higher risk exposure, particularly in:

- Land acquisition for treatment infrastructure;
- Flood and stormwater vulnerability in urban centers; and
- O&M financing gaps due to low cost recovery from sewer tariffs or FSM user fees.

To mitigate these risks, the CWSSIP recommends:

- Early safeguard screening and ESIA/ESMP preparation for all high-risk sanitation infrastructure;
- Bundling sanitation facilities with hygiene promotion and behavior change programs;
- Developing public-private partnerships for FSM service chains;
- Clarifying institutional roles for facility maintenance at ECDEs, schools, and health centers.

Table 5.24: Risk Matrix – Batch 1 Sanitation and Hygiene Projects

Project	Technical Risk	Environmental/Climate Risk	Social/Land Risk	Financial/Institutional Risk
Public Sanitation Blocks – Rural MaLow–modulares)	Low – modular designs	Moderate – waterlogging and hygiene risks	Moderate – location disputes, vandalism	High – unclear O&M and tariff enforcement
School WASH Upgrades (10 schools/year × 6 years)	Low – standardized designs	Low – limited environmental exposure	Low – sites on public land	Moderate – school O&M capacity
HCF WASH Upgrades (10 HCFs/year × 6 years)	Low – facility-based upgrades	Low – on-plot implementation	Low – minimal land impact	Moderate – county health budget dependency
MHM Promotion Campaigns (Countywide)	Low – non-structural	Low – no climate risk	Moderate – social/cultural resistance	Low – integrated into outreach budgets
Market-Based Hand Hygiene Facilities (15 sites)	Low – prefabricated units	Moderate – drainage/flood exposure	Moderate – space availability in markets	Moderate – unclear local maintenance mandate

ECDE Sanitation Block Upgrades (15 centers)	Low – simple infrastructure	Low – limited risk	Low – publicly owned	Moderate – long-term sustainability oversight
Project	Technical Risk	Environmental/Climate Risk	Social/Land Risk	Financial/Institutional Risk
Public Sanitation Blocks – Rural Markets (20 sites)	Low – modular designs	Moderate – waterlogging and hygiene risks	Moderate – location disputes, vandalism	High – unclear O&M and tariff enforcement
School WASH Upgrades (10 schools/year × 6 years)	Low – standardized designs	Low – limited environmental exposure	Low – sites on public land	Moderate – school O&M capacity
HCF WASH Upgrades (10 HCFs/year × 6 years)	Low – facility-based upgrades	Low – on-plot implementation	Low – minimal land impact	Moderate – county health budget dependency
MHM Promotion Campaigns (Countywide)	Low – non-structural	Low – no climate risk	Moderate – social/cultural resistance	Low – integrated into outreach budgets
Market-Based Hand Hygiene Facilities (15 sites)	Low – prefabricated units	Moderate – drainage/flood exposure	Moderate – space availability in markets	Moderate – unclear local maintenance mandate
ECDE Sanitation Block Upgrades (15 centers)	Low – simple infrastructure	Low – limited risk	Low – publicly owned	Moderate – long-term sustainability oversight

Table 5.25: Risk Matrix – Batch 2 Sanitation and Hygiene Projects (2027–2030)

Project	Technical Risk	Environmental/Climate Risk	Social/Land Risk	Financial/Institutional Risk
Regional Sewerage Systems (Kericho Town & Kipkelion)	High – complex engineering	High – flood risk, sewer overflows	High – land acquisition for WWTPs	High – high O&M cost, low sewer tariffs
Decentralized Sewerage – Litein Town	Moderate – network sizing	Moderate – erosion and storm surges	Moderate – space constraints	High – unclear cost recovery mechanism
Londiani Wastewater Treatment Plant (790 m^3/day)	Moderate – treatment technology	High – influent variability, sludge disposal	High – site acquisition, odor issues	High – capital and operations-intensive
Faecal Sludge Management (FSM) Facility – Londiani (pilot)	Moderate – FSM design and siting	Moderate – localized overflow risk	Moderate – siting challenges	Moderate – FSM service chain establishment
Mobile Desludging Units (2 additional for rural towns)	Low – proven mobile tech	Low – low exposure	Low – no land needed	Moderate – fuel/logistics and staffing
Sludge Drying Beds + Storage (Londiani)	Moderate – design sensitivity	High – rainfall interference	Moderate – fencing and buffer land needed	Moderate – needs trained staff and waste tracking

5.3.5.1 WASH in Schools and Healthcare Facilities

Table 5.26: WASH in Schools and Healthcare Facilities

No.	Project Name	Location	Key Components	Estimated Cost (KES Million)	Climate Resilience Justification	Risk Mitigation Measures
11	Rainwater Harvesting for Schools and HCFs	All Sub-counties	Roof catchment, elevated tanks	180	Drought-proof water source	Hygiene training, tank maintenance plans
12	Inclusive Sanitation Facilities	Schools, HCFs	PWD-friendly toilets, handwashing stations	400	Flood-resilient designs, universal access	Hygiene clubs for facility maintenance
13	MHM Infrastructure Rollout	Schools and HCFs	MHM rooms, disposal systems	120	Girls' resilience during drought-induced water scarcity	Teacher training, privacy assurance measures
14	Eco-Sanitation Pilots (Composting Toilets)	15 pilot schools	Dry toilets, compost use systems	150	Waterless sanitation model	Behavioral change campaigns, compost safety training

5.3.5.2 Strategic Climate Resilience Themes Embedded Across Projects

- Use of solar energy to reduce dependence on grid electricity and increase drought resilience.
- Design of flood-proof sanitation infrastructure to withstand extreme weather events.
- Promotion of rainwater harvesting and aquifer recharge to secure alternative water sources.
- Building community capacity in climate-adaptive hygiene practices and WASH service maintenance.

5.4 Water Resources Management and Catchment Conservation Investment Plan

Water resource management and catchment conservation are critical to sustaining water supply and sanitation service delivery in Kericho County. Degradation of key catchments such as Kipsonoi, Timbilil, Chemosit, and Itare rivers, coupled with climate change impacts (increased droughts, floods, and deforestation), threatens water availability, quality, and ecosystem health. Effective management of surface and groundwater resources, alongside protection of watershed areas, is essential to ensuring long-term service resilience, biodiversity conservation, and socio-economic stability. The proposed investments aim to restore degraded catchments, promote sustainable land use practices, and build adaptive capacity to climate risks.

5.4.1 Priority Water Resources and Catchment Conservation Investments

The table below outlines the key interventions proposed under the Water Resources Management and Catchment Conservation Plan:

Table 5.27: The key interventions proposed under the Water Resources Management and Catchment Conservation Plan

Investment Area	Key Activities	Indicative Cost (KES Million)	Climate-Resilient Measures
Riparian Land Rehabilitation	Reforestation of riverbanks (Kipsonoi, Timbilil, Chemosit), establishment of vegetative buffer zones	400	Native tree planting, controlled buffer zones, flood mitigation
Spring Protection and Aquifer Recharge	Protection of strategic springs and development of artificial aquifer recharge structures	250	Climate-resilient spring catchments, recharge ponds
Watershed Management Committees Support	Capacity building for WRUAs and community conservation groups	150	Community-led early warning systems for droughts/floods
Pollution Control Initiatives	Establishment of small-scale wastewater treatment wetlands for rural centers	200	Nature-based wastewater management systems
Water Quality Monitoring Systems	Installation of real-time water quality sensors and laboratory upgrades	150	Climate-adaptive water safety monitoring
Integrated Catchment Management Plans	Preparation of updated integrated catchment management plans (ICMPs) for key sub-catchments	200	Climate risk-informed catchment planning
Total		1,350	

Insight: Approximately KSh 1.35 billion is required for sustainable water resource management interventions through 2030

5.4.2 Climate Resilience and Sustainability Focus

The WRM interventions are designed to:

- Enhance natural water storage and groundwater recharge capacity.
- Reduce vulnerability to floods and droughts through ecosystem-based approaches.
- Improve water quality for human consumption and agricultural use.
- Strengthen community ownership and participatory management of water resources.
- Align with Kenya's National Climate Change Action Plan (NCCAP) and the Lake Victoria South Catchment Strategy.

5.4.3 Institutional and Stakeholder Linkages

Effective implementation will require the following tabulated issues:

Table 5.28: Institutional and Stakeholder Linkages

Stakeholder	Role
Water Resources Authority (WRA)	Technical oversight, abstraction permitting, and enforcement of buffer zone regulations.
County Directorate of Water and Environment	Coordinate WRM investments and capacity building for communities.
Community WRUAs	On-the-ground conservation actions, maintenance of protected areas.

NGOs and Development Partners	Technical and financial support for nature-based solutions and awareness campaigns.

5.5 Institutional Reforms and Service Delivery Models (SDMs)

Strong and adaptive institutional frameworks are critical for the sustainability of water, sanitation, and hygiene (WASH) services in Kericho County. The success of the proposed investments hinges not only on infrastructure development but also on the effectiveness of governance structures, service delivery models, and regulatory frameworks.

Currently, service delivery challenges are characterized by high non-revenue water (NRW) rates, low sanitation service coverage, fragmented rural water management, weak regulation, and limited private sector participation. Climate risks further exacerbate institutional vulnerabilities, requiring reforms that integrate resilience, financial viability, and social inclusion.

5.5.1 Assessment of Current Service Delivery Models

Table 5.29: The Current Service Delivery Models

Settlement Type	Dominant Service Model	Key Challenges Identified
Urban (Kericho Town, Litein, Londiani)	Formal WSP Model (KEWASCO licensed under WASREB)	High NRW (48%), low sewerage coverage (10%), limited billing automation
Peri-Urban Areas	Informal community-managed systems; emerging small-scale private operators	Weak technical capacity, low regulation, and high intermittency of supply
Rural Areas	Community-Managed Water Schemes (Water User Associations, WRUAs)	Sustainability challenges, poor O&M, weak asset management

Insight: Urban models are better regulated but face financial and operational inefficiencies. Rural models suffer from fragmentation and low technical support.

5.5.2 Proposed Institutional Reforms

The following institutional reforms are critical for improving sector governance, financial sustainability, and climate resilience:

Table 5.30: Proposed Institutional Reforms

Reform Focus Area	Key Reform Measures
Utility Performance (KEWASCO)	Implement full ERP and SCADA systems; reduce NRW from 48% to <30% by 2030; improve Operational Cost Coverage Ratio (OCCR) to >100%.
Rural Water Service Delivery	Formalize rural schemes under county regulation; develop and license rural Water Services Providers (small WSPs); provide targeted technical assistance.
Sanitation and FSM Service Development	Create a County FSM Strategy; license private FSM operators; integrate FSM tariffs into county bylaws.
Climate Resilient Governance	Incorporate water safety planning (WSPs) and climate risk assessments into all investment appraisals.
Accountability and Citizen Engagement	Establish service-level agreements (SLAs) between communities and county government; strengthen feedback and grievance mechanisms.
Private Sector Engagement	Promote PPPs in FSM services, water kiosks, and small-scale treatment plants; incentivize private investment via subsidies and risk-sharing frameworks.

Key Principle: Institutional reforms will focus on operational efficiency, inclusivity, climate resilience, and financial self-sustainability.

5.5.3 Recommended Service Delivery Models (SDMs) in the future

Table 5.31: The Recommended SDMs in the future

Settlement Type	Recommended SDM	Key Characteristics
Urban Centers (Kericho Town, Litein, Londiani)	Professionalized Public Utility Model (KEWASCO)	Fully licensed, ERP-supported, performance-based management.
Peri-Urban Areas	Hybrid Model: KEWASCO + Licensed Small WSPs	KEWASCO extends trunk infrastructure; small WSPs manage local distribution and FSM.
Rural Areas	Community-Based Regulated WSPs	Rural WSPs are registered under county law, with technical oversight and O&M subsidies from the County Government.

Climate Adaptation Layer: All service models must embed climate risk management — including flood-proofing, drought resilience, and solarization strategies — into service design and operations.

5.5.4 Strategic Priorities for Institutional Reform Rollout

The implementation of institutional reforms and SDMs will follow these strategic priorities:

a) Short-Term (2025–2027):
   - Launch ERP/SCADA at KEWASCO.
   - Develop rural WSP licensing framework.
   - Establish FSM regulations and pilot PPPs.

b) Medium-Term (2028–2030):
   - Achieve full KEWASCO performance benchmarks.
   - Expand FSM services across all major towns.
   - Institutionalize climate-proofed service delivery practices.

c) Long-Term (Post-2030):
   - Consolidate sustainable and inclusive service delivery models across all settlement categories.

5.5.5 Institutional, Policy, and WRM Risk Assessment

The institutional, digital, and WRM-related investments proposed in the CWSSIP are essential enablers of sustainable WASH delivery, but also carry coordination and capacity-related risks.

- **Digital projects** (e.g., SCADA, ERP, GIS mapping) present low environmental risk but require adequate IT infrastructure, change management, and staff capacity to avoid underutilization.
- **Policy and governance projects** (e.g., scorecards, planning frameworks) depend on political will and continuity, especially for ward-based investment committees and WRUA operations.
- **Catchment and WRM investments**, while environmentally beneficial, may encounter social risks if stakeholder engagement is not adequately inclusive or if WRUAs are under-resourced.

To mitigate these risks, the CWSSIP proposes:

- Dedicated capacity-building funds under institutional components;
- Clear mandates and follow-up mechanisms for WASH forums and committees;
- Blended financing (e.g., development partner support) for WRUA implementation;
- Integration of GIS and digital systems into county M&E platforms.

These risk-informed strategies will enhance institutional resilience and ensure WASH governance structures are effective and sustainable.

Table 5.32: Risk Matrix – Institutional, Policy, and WRM Investments

Project	Technical Risk	Environmental/Climate Risk	Social/Land Risk	Financial/Institutional Risk
SCADA & Digital Utility Monitoring Expansion	Moderate – ICT system complexity	Low–digital system	Low – no land needed	Moderate – dependent on KEWASCO's IT capacity
ERP and Customer Audit System (KEWASCO)	Low – software integration	None	None	Moderate – requires staff training and support
GIS Mapping of WASH Infrastructure and Service Zones	Low–technical tools required	Low environmental impact	Low – mapping only	Moderate – requires trained GIS personnel
County WASH Forums and Scorecards	Low–participatory process	None	Low – improves transparency	Moderate – needs a consistent budget line
Ward-Level WASH Investment Committees (25 wards)	Low – coordination-based	None	Low – community-led	Moderate – committee continuity risks
County Sewer and Water Master Plan Review	Low – consultant-led process	None	Low, no physical footprint	Low – already budgeted under TA
WRUA-Based Catchment Support Program (8 WRUAs)	Moderate – multi-stakeholder coordination	Moderate – erosion and runoff risk	Moderate – requires cross-village consensus	Moderate – WRUA capacity and funding gaps

5.6 Sector Financing Requirements and Sourcing Plan

Based on investment estimates across all strategic thematic areas (water supply, sewerage, sanitation, WASH in institutions, water resource management, and institutional reforms), the total financing requirement for the Kericho County WASH sector for the period 2025–2030 is estimated at KSh 12.3 billion. This financing envelope will support both capital expenditures (CAPEX) for infrastructure development and operational expenditures (OPEX) for strengthening governance, operation, maintenance, and climate resilience integration.

5.6.1 Breakdown of Financing Needs by Thematic Area

The table below (also captured in chapter 4) summarizes the sector financing requirements by key investment categories:

Table 5.33: Breakdown of Financing Needs by Thematic Area

Service Area	Estimated Investment (KES Billion)	% of Total Envelope
Water Supply (Urban & Rural)	5.62	45.7%

Sanitation (Sewered & On-site)	2.47	20.1%
Hygiene and MHM	0.63	5.1%
Water Resources and Catchment Management	0.67	5.4%
Institutional Strengthening & Digitization	0.71	5.8%
Climate Resilience and Emergency Preparedness	1.05	8.5%
Monitoring, Governance & Social Inclusion	0.53	4.3%
Total	**12.30**	**100%**

Insight: Water supply remains the largest investment area, but sanitation (both sewered and non-sewered) represents a combined 38% share, reflecting the county's focus on comprehensive service delivery.

5.6.2 Proposed Sources of Financing

Kericho County will adopt a diversified financing strategy to meet the sector investment requirements. The table below outlines the targeted financing sources and projected contribution levels:

Table 5.34: targeted financing sources

Financing Source	Expected Contribution (%)	Financing Role
County Government Development Budgets	25%	Core funding for rural water supply, sanitation expansion, and FSM pilots.
National Government Transfers (e.g., WSTF, LVSWWDA projects)	20%	Support for NAWASIP-aligned programs and rural infrastructure development.
Development Partners (World Bank, K-WASH, AfDB, USAID)	30%	Performance-based financing for climate-resilient WASH interventions.
Private Sector (PPP initiatives in sanitation, FSM, water vending)	10%	Investment in faecal sludge management services, decentralized treatment facilities, and water kiosks.
Community Contributions and Tariffs	5%	O&M cost recovery, rural water scheme upgrades, WASH in institutions.
Climate Financing Mechanisms (Green Climate Fund, Adaptation Fund)	10%	Targeted financing for resilience-building, catchment conservation, and renewable energy adoption.

5.6.3 Financial Gap and Risk Considerations

Despite the diversified approach, a financing gap remains possible if:

- Development partner commitments are delayed or reduced.
- County fiscal pressures (e.g., health, agriculture) reduce WASH budget share.
- Private sector participation in sanitation remains low without incentives.

Risk Mitigation Strategies:

- Strengthen county budgeting processes to progressively increase the WASH allocation toward the 10% sector benchmark.
- Build the capacity of county institutions to prepare bankable climate finance proposals.

- Create enabling regulatory frameworks and incentive structures to de-risk private sector investments.
- Leverage performance-based funding from donors by achieving measurable service delivery targets (e.g., increased sanitation access, NRW reduction).

6.1 Environmental, Health, and Safety in the WASH Sector – Permitting and Monitoring Plans

6.1.1 Overview and Regulatory Framework

Environmental, Health, and Safety (EHS) considerations are fundamental to the design, implementation, and long-term sustainability of water and sanitation investments. As required under the Environmental Management and Coordination Act (EMCA, 1999) and aligned with the Program Operations Manual (POM) for the Kenya Water and Sanitation Program (K-WASH), all projects under the CWSSIP must integrate safeguards at every stage of the project lifecycle.

In the Kericho County context, increasing pressure on water sources, climate variability, and rapid infrastructure expansion necessitate a structured system for permitting, compliance monitoring, occupational health and safety, and environmental protection. This section outlines the systems and institutional mechanisms that will ensure:

- Environmental sustainability of WASH investments,
- Worker and community health and safety,
- Legal compliance with NEMA, WRA, and public health standards,
- Social acceptability and conflict prevention during implementation.

The EHS framework in this strategy draws on:

- National laws (EMCA, Water Act 2016, Occupational Health and Safety Act),
- County-specific bylaws and public health regulations,
- International good practices in safeguards and risk management,
- K-WASH guidelines for Environmental and Social Management Plans (ESMPs).

6.1.2 Environmental Permitting Requirements

All projects under the Kericho County Water and Sanitation Strategy and Investment Plan (CWSSIP) are subject to mandatory environmental permitting in accordance with the Environmental Management and Coordination Act (EMCA, 1999) and the NEMA Environmental Impact Assessment (EIA) Regulations (2003, Revised 2019). These requirements apply to both new infrastructure and major rehabilitations, particularly those likely to have significant environmental or social impacts.

6.1.2.1 Project Screening and Classification

Each project will undergo environmental and social screening, conducted by the implementing agency or supervising consultant, to determine the appropriate safeguards instrument. Based on screening results, projects will be classified into three categories:

- Category A: High-impact projects (e.g., large-scale water supply systems, treatment plants, dam infrastructure) – require full Environmental and Social Impact Assessment (ESIA).

- Category B: Moderate-risk projects (e.g., boreholes, medium piped systems, sanitation facilities) – require a Project Report and Environmental and Social Management Plan (ESMP).
- Category C: Low-risk or routine maintenance projects – may not require a formal ESIA but must incorporate standard EHS precautions.

6.1.2.2 NEMA PermiFng Process

For all Category A and B projects, the implementing agency shall:

- Prepare and submit the appropriate safeguards report (ESIA or Project Report) to NEMA for review.
- Disclose the report to affected communities through public barazas or stakeholder forums.
- Secure the Environmental Impact Assessment License before commencing construction activities.
- Ensure that all ESIA license conditions are incorporated into design, procurement, and contract management documents.

6.1.2.3 Water Abstraction and Effuent Discharge Permits

Projects involving surface or groundwater abstraction (e.g., boreholes, river intakes) must comply with Water Resources Authority (WRA) permitting procedures. This includes:

- Application for water use permits (Form WRMA/1),
- Hydrological assessment and reserve flow analysis,
- Installation of abstraction meters and submission of quarterly usage reports.

Where wastewater is generated (e.g., in institutional sanitation systems or treatment plants), an efluent discharge license will be obtained and monitored in accordance with EMCA (Water Quality Regulations, 2006).

6.1.3 Health and Safety Planning

The implementation of WASH projects under the CWSSIP will require strict adherence to Occupational Health and Safety (OHS) standards to protect workers, contractors, and the public. This includes the establishment of proactive systems for hazard prevention, incident response, and continuous monitoring throughout project execution.

6.1.3.1 Legal and Institutional Basis

Health and safety planning will be anchored in the:

- Occupational Safety and Health Act (OSHA), 2007;
- Public Health Act (Cap 242);
- National Construction Authority (NCA) regulations;
- And relevant clauses from the Program Operations Manual (POM) under the K-WASH framework.

All implementing entities and contractors shall be required to comply with these statutes and any other guidelines issued by the Ministry of Labour and NEMA.

6.1.3.2 B. Contractor Health and Safety Obligations

All contractors engaged in CWSSIP infrastructure works shall be required to:

- Develop and submit a Site-Specific OHS Plan for approval prior to mobilization.
- Appoint a qualified HSE Officer to oversee on-site safety and ensure the use of Personal Protective Equipment (PPE).
- Conduct daily toolbox talks, safety induction training, and routine hazard identification exercises.
- Install signage, barriers, and first aid facilities at all active sites.
- Maintain an accident/incident logbook and report all significant safety events within 24 hours.

Failure to meet safety requirements shall result in contract enforcement actions, including suspension or financial penalties.

6.1.3.3 C. Public and Community Safety

During construction, special attention will be given to protecting the public, especially schoolchildren, vendors, and commuters, through:

- Traffic management plans in market centers and urban neighborhoods;
- Safe pedestrian access routes and signage;
- Stakeholder sensitization on construction risks;
- Close coordination with village elders, community health volunteers (CHVs), and WRUAs.

In addition, biohazard controls will be implemented in sanitation projects to prevent exposure to fecal sludge and other contaminants.

6.1.4 Environmental, Health, and Safety Monitoring Framework

To ensure that all environmental, health, and safety (EHS) requirements are effectively implemented and maintained throughout the project lifecycle, Kericho County will adopt a structured EHS Monitoring Framework. This framework will enable the county, implementing partners, and oversight agencies to track compliance, mitigate risks, and ensure safeguards are embedded into daily operations.

6.1.4.1 A. Monitoring Responsibilities

The monitoring of EHS compliance shall be undertaken at three levels:

1. Project Implementers (e.g., KEWASCO, WRUAs, County Departments)
    - Conduct self-monitoring against approved Environmental and Social Management Plans (ESMPs), OHS Plans, and permit conditions.
    - Submit monthly EHS compliance reports to the County EHS Monitoring Committee.
2. County EHS Monitoring Committee
    - Composed of representatives from Water, Environment, Public Health, Labour, and Lands departments.

- Conduct quarterly site inspections and verification visits.
- Consolidate findings into biannual compliance audits.

3. External Oversight (e.g., NEMA, WRA, Independent Auditors)
   - Conduct independent reviews, particularly for high-risk projects or where license conditions require third-party verification.

6.1.4.2 B. Monitoring Tools and Indicators

The following tools and indicators will be used to assess EHS compliance:

Table 6.1: tools and indicators to assess EHS compliance

EHS Monitoring Tool	Indicators
Site Inspection Checklists	PPE usage, signage, worker safety, and sanitation on-site
ESMP Compliance Matrix	Fulfillment of mitigation measures, timelines, and responsibilities
Incident Logbook Review	Number of reported accidents, near misses, and response actions
Community Feedback Logs	Number and type of grievances reported, resolution status.
WRA/NEMA Reports	Permit compliance (abstraction, efluent discharge), environmental violations

Each CWSSIP project will be assigned a Safeguards Monitoring Folder, maintained digitally, to store all records, photos, permits, and verification forms.

6.1.4.3 Corrective Action and Reporting

All observed non-compliance shall trigger a Corrective Action Plan (CAP) with clear deadlines and responsibilities. In cases of repeated or severe breaches, enforcement actions may include:

- Withholding of payments,
- Suspension of works,
- Escalation to regulatory bodies.

A summary of EHS compliance status will be included in CWSSIP's annual implementation progress report and shared with stakeholders at county-level WASH review forums.

6.2 Environmental, Health, and Safety in the WASH Sector

The provision of water supply and sanitation services in Kericho County intersects closely with critical environmental, health, and safety considerations. The existing WASH infrastructure faces multiple risks arising from environmental degradation, climate change, and operational safety gaps, which, if not addressed, could undermine service quality, public health outcomes, and the sustainability of water resources. This section provides an assessment of the prevailing environmental, health, and safety (EHS) conditions in the WASH sector, proposed mitigation measures, and plans for regulatory compliance and monitoring.

6.2.1 Situational Analysis of Existing Environmental, Health, and Safety Risks

Kericho County's WASH sector is exposed to several EHS risks:

- **Environmental Risks**: Degradation of water catchment areas, pollution of surface and groundwater sources, and inadequate wastewater management pose significant threats to environmental quality. Flood events frequently lead to sewer overflows and cross-contamination of water supplies.
- **Health and Safety Risks**: Poor occupational health and safety practices at water supply and sanitation worksites increase risks to staff and surrounding communities. Contaminated drinking water, insufficient sanitation, and weak solid waste management in healthcare and educational facilities exacerbate public health vulnerabilities.
- **Climate-Related Risks**: Increased frequency of droughts, floods, and landslides damages WASH infrastructure, disrupts service delivery, and compromises water quality.

6.2.2 Measures to Manage and Mitigate Environmental, Occupational Health, and Safety Risks

Kericho County, through the CWSSIP, will implement the following mitigation measures:

a) Strengthening Environmental Safeguards: Mandatory Environmental and Social Impact Assessments (ESIAs) will be undertaken for all major WASH infrastructure projects, in compliance with the Environmental Management and Coordination Act (EMCA).
b) Occupational Health and Safety Plans (OHS Plans): All water service providers and contractors will be required to prepare and implement OHS Plans for construction and operational phases, ensuring adherence to national occupational safety standards.
c) Catchment Protection and Conservation: Initiatives such as afforestation, riparian zone rehabilitation, and pollution control measures will be scaled up in priority sub-catchments.
d) Solid and Hazardous Waste Management: Strengthened protocols for waste segregation, treatment, and disposal will be implemented, particularly for healthcare facilities and public markets.
e) Emergency Response Planning: WASH utilities will develop and operationalize emergency preparedness and response plans to address service disruptions due to floods, landslides, and other climate hazards.

6.2.3 Plan to Obtain Water Abstraction Permits from the Water Resources Authority (WRA)

In alignment with the Water Act 2016 and WRA regulations:

- All existing and planned water abstraction points will be audited, and compliance status determined.
- Applications for new Water abstraction permits will be fast-tracked for schemes under expansion or new development.
- Existing permits will be reviewed to ensure alignment with sustainable abstraction limits based on updated hydrological assessments.
- Monitoring systems, including installation of abstraction meters, will be instituted to ensure compliance with permit conditions.

6.2.4 Plan to Obtain Appropriate Environmental and Social Impact Licenses for Schemes and Projects

To ensure environmental compliance:

- All new WASH projects above the ESIA threshold will undergo comprehensive Environmental and Social Impact Assessments (ESIAs) prior to implementation.
- Projects will be submitted to the National Environmental Management Authority (NEMA) for licensing before the commencement of construction.
- Environmental and Social Management Plans (ESMPs) developed during the ESIA process will be integrated into the construction contracts and operations manual.

6.2.5 Plan to Monitor Environmental, Health, and Safety Performance of Proposed Water and Sanitation Investments

A structured EHS Monitoring and Evaluation Framework will be established:

- **Key Performance Indicators (KPIs)** will include: compliance with abstraction permits, ESIA license conditions, occupational health and safety incident rates, and environmental quality indicators such as efluent standards and source water quality.
- **Regular Reporting**: Service providers and project contractors will submit quarterly EHS compliance reports.
- **Third-Party Audits**: Annual independent audits will be commissioned to assess environmental and social compliance and recommend improvements.
- **Community Engagement**: Communities will be involved in monitoring environmental outcomes and reporting grievances through established grievance redress mechanisms.

6.3 Social Assessment

A comprehensive understanding of social risks and opportunities is critical to ensuring the sustainable, equitable, and inclusive delivery of WASH services in Kericho County. This section analyses the sector's social risks, mitigation measures, institutional arrangements, and fiscal provisions for managing social issues during project development and operations.

6.3.1 Situation Analysis on Social Risks in the WASH Sector

Kericho County’s WASH sector is exposed to a range of social risks, including:

- **Land Ownership and Documentation**: Several existing and proposed water and sanitation infrastructures are situated on community land, unregistered public land, or land acquired without formal documentation, increasing risks of disputes, project delays, or involuntary resettlement during project scaling.
- **Grievance Resolution Mechanism**: While informal grievance handling exists at the community and water service provider levels, there is limited institutionalization of formal Grievance Redress Mechanisms (GRMs) that are accessible, timely, and transparent.
- **Management of Water and Sanitation Infrastructure During Operation**: Community ownership and operational management capacity for small-scale and rural schemes remain weak. In some cases, vandalism, illegal connections, and poor maintenance have contributed to service interruptions.
- **Community Health Issues during Project Implementation**: Construction of water and sanitation infrastructure often poses risks to public health through increased dust, noise, disruption of sanitation systems, and localized water contamination if mitigation measures are not well enforced.

- **Affordability and Willingness to Pay**: While users generally express willingness to pay for improved WASH services, there is sensitivity to tariff increases, especially among rural and low-income households. New investments that lead to increased tariffs without accompanying service quality improvements risk sparking community dissatisfaction.

6.3.2 Measures to Manage and Mitigate Existing Social Risks in the WASH Sector

Kericho County will implement the following social risk mitigation measures:

- **Land Tenure Risk Mitigation**:
  - Conduct due diligence on land ownership prior to project siting.
  - Prioritize use of public land where possible and secure proper registration or legal agreements for all WASH infrastructure sites.
  - Where land acquisition is unavoidable, implement Resettlement Action Plans (RAPs) in accordance with national laws and World Bank guidelines.
- **Grievance Redress Mechanisms (GRMs)**:
  - Institutionalize project-level GRMs during planning and construction phases.
  - Establish clear grievance escalation pathways from site committees to County WASH oversight units.
  - Publicize GRM procedures widely through community barazas, local media, and project notice boards.
- **Operation and Maintenance Management**:
  - Strengthen the capacity of Water Service Providers (WSPs) and community water committees through structured training programs.
  - Develop and enforce community operation and maintenance guidelines for small-scale water schemes and sanitation facilities.
- **Community Health Risk Management**:
  - Integrate Environmental, Social, Health, and Safety (ESHS) standards into contractor obligations.
  - Implement hygiene promotion campaigns during construction, targeting both workers and surrounding communities.
  - Ensure availability of potable water and sanitation facilities for construction workers to avoid local contamination.
- **Affordability and Tariff Mitigation Measures**:
  - Engage communities early in tariff discussions linked to new investments.
  - Implement progressive tariff structures that protect vulnerable groups.
  - Develop social support programs (e.g., subsidized lifeline tariffs) for indigent households.

6.3.3 Analysis of Users' Willingness to Pay for WASH Services

Based on field consultations and secondary data analysis:

- **Urban Areas**: Approximately 75% of urban residents expressed willingness to pay slightly higher tariffs if service reliability, water quality, and hours of supply improved significantly.
- **Rural Areas**: Willingness to pay is lower, with only about 40–50% of households able or willing to absorb higher tariffs without external subsidies. Affordability concerns are highest among informal settlements, agricultural workers, and marginalized communities.

- **Tariff Sensitivity**: A tariff increase of 10–15% is considered acceptable if linked to demonstrable improvements in service delivery (e.g., reduced rationing, improved water quality).

These insights will guide a gradual, socially acceptable tariff adjustment policy that is aligned with infrastructure investment needs and users' ability to pay.

6.3.4 Institutions Dealing with Social Issues during Project Implementation

The following institutions are responsible for managing the social aspects of WASH investments in Kericho:

- **Department of Water, Environment, Energy, Natural Resources, and Forestry (WEENRF)**: Leads in stakeholder engagement, social safeguards compliance, and community sensitization.
- **Kericho Water and Sanitation Company (KEWASCO)**: Manages urban water and sanitation services, including social outreach and GRM functions.
- **County Department of Health**: This agency oversees public health risk management during WASH project implementation, including monitoring hygiene standards and managing community health interventions.
- **Community Water Associations and WRUAs**: Play a role in managing localized community concerns around water infrastructure, particularly in rural areas.
- **NEMA**: Through its county offices, supervises compliance with environmental and social license conditions and safeguards measures during project implementation.

6.3.5 Strategic Environmental Considerations for Long-Term Water Supply Investments

Future large-scale water infrastructure developments, including the Londiani Mega Water Supply Project, Bosto Dam, and Itare Dam, carry significant environmental and social implications. While these projects promise transformative gains in water security, they will require:

- Comprehensive Environmental and Social Impact Assessments (ESIAs) in compliance with NEMA and World Bank ESS standards.
- Careful siting to minimize ecological disruption, particularly regarding riparian habitats, wetlands, and forest reserves.
- Early stakeholder engagement processes to manage land acquisition, resettlement (if any), and equitable water allocation.
- Integration of nature-based solutions (e.g., afforestation of catchments, biodiversity buffers) to offset potential environmental impacts.
- Consideration of downstream flow maintenance, aquatic life conservation, and sedimentation management.

Recommendation: The County shall work closely with LVSWWDA, WRA, and relevant agencies to ensure future investments such as Londiani Bulk Supply, Bosto Dam interconnections, and Itare Dam resilience extensions are planned sustainably, mainstreaming environmental protection and social inclusion principles into design and operation phases.

6.3.6 Presence of an Integrated Unit Dealing with Environmental and Social Issues

Kericho County currently lacks a fully integrated Environmental and Social Safeguards Unit dedicated to WASH. However:

- Environmental issues are addressed under the WEENRF department.
- Social issues are managed in a dispersed manner between the Water Department, the Health Department, and WSPs.
- Under the CWSSIP, there is an opportunity to propose the establishment of a dedicated County Water and Sanitation Environmental and Social Unit (CWSESU) responsible for coordinating safeguards compliance, grievance management, and community engagement.

6.3.7 County Budget Provision for Implementation of Social Issues

As of FY 2024/25:

- Kericho County allocates approximately **KSh 15 million annually** toward community sensitization, stakeholder consultation, and grievance redress activities linked to WASH projects (approximately 2.5% of total County WASH budget).
- This funding primarily supports activities such as:
    - Stakeholder forums at project launch and closure.
    - Training of community water committees.
    - Hygiene promotion campaigns in conjunction with new water and sanitation projects.

Under the CWSSIP, it is recommended that this allocation be gradually increased to **at least 5%** of the County WASH sector budget to adequately support expanded community engagement, grievance resolution, and social monitoring activities associated with the anticipated scale-up of investments.

7.1 Strategy and Investments Implementation Plan

The implementation of the Kericho Countywide Water and Sanitation Strategy and Investment Plan (CWSSIP) will be undertaken in phased stages aligned with the County's planning and budgeting cycles from FY 2025/26 to FY 2029/30. The Strategy translates the sector priorities and investment areas into executable actions, grounded in the Performance Enhancement Framework (PEF), the Kericho Water Master Plan, and national frameworks such as NAWASIP and the County Integrated Development Plan (CIDP III, 2023–2027).

The implementation plan focuses on five strategic investment areas:

a) Expansion and rehabilitation of water supply systems
b) Scaling up inclusive sanitation and fecal sludge management (FSM)
c) Strengthening institutional and service delivery models
d) Enhancing water resources management and climate resilience
e) Cross-cutting interventions including GIS mapping, MHM, and monitoring & evaluation

To ensure practical execution, the CWSSIP proposes a phased approach structured over three key periods — short-term (FY 2025/26), medium-term (FY 2026/27–FY 2027/28), and long-term (FY 2028/29–FY 2029/30). Table 7.1: CWSSIP Implementation Timeline (FY 2025/26 – 2029/30)

Table 7.1: CWSSIP Implementation Timeline (FY 2025/26 – 2029/30)

Strategic Area	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
Rural Water Infrastructure Upgrades	✓	✓	✓		
Urban Water Network Expansion	✓	✓	✓	✓	
Borehole Solarization Program	✓	✓	✓		
Faecal Sludge Management Sites		✓	✓	✓	
School and HCF WASH Facility Upgrades	✓	✓	✓	✓	✓
Smart Metering and NRW Reduction	✓	✓	✓		
Spring Protection and Climate Resilience	✓	✓			
Customer and Asset Audit	✓				
Digital M&E Dashboard Deployment		✓	✓	✓	✓

✓ = Primary implementation year(s) for the activity.

The implementation will be led by the County Department of Water, Energy, Environment, and Natural Resources in coordination with KEWASCO, other County departments, and sector partners, under the oversight of the County WASH Steering Committee.

Table 7.2: CWSSIP Implementation Phases (2025–2030)

Phase	Duration	Focus
Phase I	FY 2025/26	Kick-start high-impact, low-cost projects; strengthen coordination units
Phase II	FY 2026/27–2027/28	Scale infrastructure projects; expand FSM, WRM, and institutional reforms
Phase III	FY 2028/29–2029/30	Consolidate gains, sustain M&E systems, expand PPP and community models

The phased implementation will be supported by structured institutional responsibilities and technical coordination mechanisms as outlined below.

Table 7.3: Key Phased Activities and Responsibilities

Investment Area	FY 2025/26	FY 2026/27–2027/28	FY 2028/29–2029/30	Lead Responsibility
Water Supply Infrastructure	Rehabilitate boreholes; solarize rural schemes; initiate Kimugu intake completion.	Expand piped systems; new MUS projects in Kipkelion and Soin; install water kiosks.	Upgrade urban supply SCADA; construct elevated tanks in peri-urban growth centers.	Dept. of Water & KEWASCO
Sanitation & FSM	Construct school and HCF sanitation blocks; initiate the FSM Hub at Kapsoit.	Implement the FSM chain (sludge transport and treatment); expand sanitation marketing.	Construct FSTPs in Londiani and Brooke; strengthen sanitation entrepreneurs.	KEWASCO, Dept. of Health, Public Works
Institutional Reforms	Formalize the County WASH Steering Committee and develop the WSP digitization roadmap.	Roll out ERP and digital billing for KEWASCO; restructure rural water governance.	Evaluate reform impact; scale PPP and performance contracts	Dept of Water, Finance, County Assembly
Water Resources & Climate Resilience	WRUA capacity building, spring protection and fencing, nature-based solutions	Implement catchment restoration projects (Timbilil, Chemosit); early warning systems.	Expand FLLoCA co-financed projects; WRM in schools and institutions	Dept. of Environment, WRA, LVSWWDA
Cross-Cutting (GIS, Equity, M&E, MHM)	Develop GIS-WASH map; initiate MHM and disability audits; training on M&E tools.	Launch a real-time dashboard; integrate WASH in school feeding and health programs.	Full operationalization of the M&E system; disseminate annual WASH performance reports	Dept. of Planning, Education, Gender, Health

7.2 Monitoring and Evaluation Plan

7.2.1 Overview and Objectives

Monitoring and Evaluation (M&E) is a core pillar of the Kericho County Water and Sanitation Strategy and Investment Plan (CWSSIP), providing a structured framework for tracking progress, ensuring accountability, and informing adaptive management of WASH investments. The M&E system is designed to align with the Kenya Water Act 2016, the K-WASH Results Framework, and national commitments under the Sustainable Development Goals (SDGs)—particularly SDG 6 on universal access to water and sanitation.

The primary objectives of the M&E Plan are to:

- Track performance of CWSSIP implementation against agreed targets and indicators.
- Ensure compliance with environmental, social, and operational safeguards.
- Provide early warning on underperformance, inefficiencies, or risks.
- Enable evidence-based decision-making and timely course correction.
- Promote transparency and accountability among implementing agencies, development partners, and the public.

The system integrates output, outcome, and impact indicators, and provides mechanisms for routine data collection, independent verification, and public reporting. It also supports linkages with WRA monitoring systems, WASREB performance tools (e.g., WARIS), and the County Integrated Monitoring and Evaluation System (CIMES).

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7.2.3 Monitoring Indicators

The CWSSIP Monitoring and Evaluation framework uses a tiered indicator system to track progress at output, outcome, and impact levels, ensuring that the strategy remains aligned with both national performance standards and global targets such as the Sustainable Development Goals (SDGs). The

indicators cover water access, sanitation coverage, hygiene behavior, system functionality, sustainability, equity, and governance.

Indicators are drawn from:

- The Core CWSSIP Monitoring Indicators developed under the K-WASH program,
- WASREB's Utility Performance Index (UPI),
- WRA's compliance and abstraction monitoring system, and
- The County Integrated Monitoring and Evaluation System (CIMES).

These indicators will be reported quarterly, annually, and at midterm (every 2.5 years), with data sourced from implementing agencies (KEWASCO, Department of Water, Department of Public Health), WRUAs, and sector partners.

Table 7.4: Comprehensive CWSSIP Monitoring Indicators (2023–2030)

Indicator Category	Indicator	Baseline (2023/24)	Target (2030)	Source	Frequency	Responsible Entity
Water Access (HH)	% of population using basic water services	48.5%	≥85%	KDHS 2022, CWSSIP Baseline 2025	Annual	KEWASCO, Dept. of Water
	% of households with safely managed drinking water	11.2%	≥25%	CWSSIP Baseline 2025	Annual	Dept. of Water, WASH Hub
	% of households relying on surface water	18.4%	≤5%	CWSSIP Baseline 2025	Annual	Dept. of Water
	% of households with piped water	~32% (estimated)	≥50%	WASREB, CWSSIP Dashboard	Annual	KEWASCO, WASH Hub
Institutional Water	% of schools with access to functional water supply	61%	≥95%	MoE, School WASH Survey	Annual	Dept. of Education
	% of HCFs with functional water supply	58%	≥100%	Dept. of Health, WASH Baseline	Annual	Dept. of Health, Public Works
Sanitation Access (HH)	% of households with improved sanitation	48%	≥85%	KDHS, Public Health Dept	Annual	Dept. of Health
	% of households connected to sewer systems	<10%	≥25%	KEWASCO, WASH Baseline	Annual	KEWASCO
	% of people practicing open defecation	13%	≤2%	CWSSIP Survey, MICS	Annual	Public Health Dept
Institutional Sanitation	% of schools with gender-segregated toilets	47%	100%	School WASH Survey	Annual	MoE, WASH Hub
	% of HCFs with sanitation and menstrual hygiene facilities	54%	100%	Health Dept, WASH Survey	Annual	Dept. of Health
Hygiene	% of households with handwashing facility with soap	32%	≥70%	KDHS, WASH Baseline	Annual	Dept. of Health, CHVs

	% of schools with functional handwashing stations	42%	100%	MoE, UNICEF Reports	Annual	Dept. of Education
	% of health facilities with IPC-compliant hygiene systems	49%	100%	MoH/Dept of Health	Annual	Dept. of Health
Equity	% of low-income HHs with access to safe water	48%	≥90%	Household Survey, Social Registry	Biannual	WASH Hub, Gender Dept
	% of female-headed HHs accessing improved sanitation	33%	≥85%	Gender and WASH Surveys	Biannual	Dept. of Gender, Dept. of Health
Utility Performance	Non-Revenue Water (NRW) – KEWASCO	47%	≤25%	WARIS, KEWASCO Reports	Quarterly	KEWASCO
	% of metered connections	99%	100%	KEWASCO Asset Registry	Annual	KEWASCO
	% of connections with 24/7 water supply	~65%	≥95%	KEWASCO O&M Reports	Annual	KEWASCO
	% of water samples passing quality tests (E. coli, chlorine residual)	92%	100%	KEWASCO, MoH	Quarterly	KEWASCO, Dept. of Health
Financial Indicators	Collection Efficiency	97%	≥95%	KEWASCO Reports	Quarterly	KEWASCO
	O&M Cost Coverage (Utility)	81%	≥100%	Financial Audits	Annual	KEWASCO, Dept. of Water
Environmental & Climate	% of schemes with ESMPs and NEMA licenses	TBD	100%	NEMA, County Environment Dept	Quarterly	Dept. of Environment
	% of projects with flood/drought risk plans	TBD	100%	CWSSIP Implementation Reports	Annual	County WASH Unit
Governance & Citizen Engagement	% of projects with functional community WASH committees	56%	≥90%	WRUA/Project Reports	Annual	Dept. of Water, WRUAs
	% of grievances resolved within 30 days	TBD	≥95%	County Feedback Systems	Quarterly	WASH Hub, Complaints Office
	% of public investments geo-tagged and disclosed	TBD	100%	GIS-WASH Dashboard	Biannual	Dept. of Planning, ICT

These indicators will be refined further during implementation based on real-time learning and feedback from community monitoring structures and partner evaluations.

7.2.4 Roles and Responsibilities in Monitoring and Evaluation (M&E)

An effective Monitoring and Evaluation (M&E) system requires multi-level coordination, clear institutional mandates, and routine data flows to ensure that the implementation of the CWSSIP is tracked transparently, accurately, and inclusively. This section outlines the specific roles and

responsibilities of each stakeholder category involved in the delivery, oversight, and learning functions of the M&E system.

7.2.4.1 County Government of Kericho – Oversight and Coordination

The County Department of Water, Environment, Natural Resources, and Climate Change will serve as the overall M&E coordinating entity for CWSSIP. Its responsibilities include:

- Anchoring CWSSIP M&E in the County Integrated Monitoring and Evaluation System (CIMES).
- Establishing a CWSSIP M&E Coordination Unit composed of water, sanitation, health, education, environment, finance, and ICT representatives.
- Leading quarterly M&E review meetings, with performance dashboards shared with the County Executive Committee and WASH stakeholders.
- Validating sectoral performance data and compiling the Annual County CWSSIP Performance Report.
- Facilitating the use of M&E data in county budgeting, planning, and investment prioritization.

7.2.4.2 KEWASCO – Urban Water Services Monitoring

As the official licensed Water Services Provider (WSP) in Kericho's urban areas, KEWASCO has the responsibility to:

- Collect and report utility-level performance indicators through the WASREB WARIS platform, including:
    - Non-Revenue Water (NRW),
    - Service coverage,
    - Revenue collection efficiency,
    - Metering ratio,
    - Energy efficiency,
    - Customer complaint resolution rates.
- Generate monthly operational reports submitted to the County Department of Water and WASREB.
- Maintain a digital asset registry and GIS mapping system that links service points to performance indicators.
- Participate in third-party performance audits, customer satisfaction surveys, and verification missions.

7.2.4.3 Rural Water Schemes, Community Water Projects, and WRUAs

Rural water infrastructure (community-managed, donor-supported, or county-built schemes) will be monitored through decentralized reporting mechanisms coordinated by the County WASH Unit. Key actors include:

- Community Water Management Committees (CWMCs) and Water Resource Users Associations (WRUAs) who will:
    - Maintain biannual reporting logs on functionality, maintenance needs, revenue collection, and service coverage.

- Submit water source abstraction reports aligned with WRA permit conditions (volumes, reserve flow, water quality).
- Participate in scorecard reviews and citizen-led monitoring exercises supported by NGOs and WRMA.

- Sub-county Water Officers who will consolidate rural water data from WRUAs and CWMCs for County use.

7.2.4.4 Department of Public Health – Sanitation and Hygiene M&E

The County Department of Health and Sanitation is responsible for:

- Tracking progress on household sanitation coverage, handwashing behavior, and Open Defecation Free (ODF) status across wards.
- Conducting household and institutional WASH surveys, disaggregated by gender, age, and vulnerability.
- Coordinating Public Health Officers (PHOs) and Community Health Volunteers (CHVs) in collecting data on:
  - Latrine usage,
  - Faecal sludge management (FSM),
  - Vector control,
  - Disease incidence linked to WASH (e.g., diarrhoea, cholera, typhoid).

7.2.4.5 Department of Education and Department of Health – Institutional WASH Monitoring

The Department of Education and the Department of Health Services will be key contributors to monitoring:

- WASH in Schools:
  - % of schools with functional latrines (gender-segregated),
  - Handwashing stations with soap,
  - Menstrual Hygiene Management (MHM) facilities,
  - Teacher-led hygiene education initiatives.
- WASH in Health Care Facilities (HCFs):
  - % of HCFs with basic water, sanitation, waste management, and hygiene services,
  - Infection Prevention and Control (IPC) audits,
  - Compliance with MOH WASH standards and WHO minimum requirements.

These departments will submit structured reports via their Ward Education Officers and County Health Records Information Officers (HRIOs).

7.2.4.6 Regulatory Agencies – WASREB, WRA, and NEMA

National regulators will maintain their mandates as independent oversight institutions, offering both enforcement and benchmarking functions:

- WASREB:
  - Conducts annual performance benchmarking of KEWASCO through the Impact Report.
  - Oversees compliance with service standards and business plan targets.

- Verifies utility reporting through technical and financial audits.
- WRA:
  - Monitors abstraction permits, compliance with reserve flows, and efluent discharge standards.
  - Oversees WRUAs and basin-level water use plans.
  - Coordinates hydrological data and drought monitoring for water security planning.
- NEMA:
  - Tracks environmental compliance through EIA follow-ups, ESMP implementation monitoring, and grievance redress audits.
  - Receives and investigates environmental complaints related to CWSSIP projects.

7.2.4.7 Development Partners, CSOs, and Independent Verifiers

Key external stakeholders will play a supportive and verification role in M&E:

- WSTF, UNICEF, World Bank (via K-WASH), LVSWWDA, and NGOs will:
  - Conduct joint annual reviews, third-party verifications, and community scorecard facilitation.
  - Provide financial and technical support for M&E system strengthening.
  - Pilot real-time monitoring tools (e.g., mobile apps, dashboarding platforms).
- Civil Society Organizations (CSOs) and faith-based groups will:
  - Facilitate community-led accountability platforms, especially in underserved wards.
  - Document feedback from marginalized and vulnerable populations.
  - Complement county monitoring through citizen-generated data.

7.2.4.8 Community and Citizen Engagement

To ensure transparency, the CWSSIP will promote bottom-up monitoring through:

- Establishment of Community WASH Monitoring Groups (CWMGs) at ward level.
- Public sharing of key performance indicators through ward barazas, SMS platforms, dashboards, and community radio updates.
- Grievance Redress Mechanisms (GRMs) linked to the county's ICT system, with feedback loops embedded in M&E reporting.

7.3 Reporting, Feedback, and Data Use Mechanisms

This section enhances the learning and adaptive management function of the CWSSIP by outlining structured reporting lines, community feedback systems, integration with national platforms, and the practical application of M&E data in refining strategies and informing investment decisions.

7.3.1 Structured Reporting Mechanisms

The CWSSIP will adopt a tiered reporting structure to facilitate regular updates from field-level implementers to high-level policy and funding decision-makers. The following reporting tools and frameworks will be standardized across all projects and institutions under the strategy:

Table 7.5: reporting tools and frameworks

Report Type	Compiled By	Reporting Level	Frequency	Purpose / Use
CWSSIP Output Progress Reports	WASH Hub, County Dept. of Water	County Government, Partners	Quarterly	Tracks implementation against planned activities, budgets, and timelines
Annual CWSSIP Implementation Report	Planning Unit + WASH Hub	Governor, CECs, Treasury	Annual	Provides aggregated countywide performance; informs ADP and budget planning
WASH Facility Functionality Reports	WRUAs, School Boards, Health Units	Sub-county / County	Biannual	Monitors school, HCF, and community water point functionality
Safeguards Compliance Reports	NEMA, Environment & Public Health	National / County	Quarterly	Monitors implementation of ESMPs, OHS, abstraction licensing, and audit findings
WASREB WARIS Submissions	KEWASCO	WASREB (Regulator)	Quarterly/Annual	Utility performance benchmarking (NRW, metering, customer feedback, coverage)
Community Feedback Logs	WRUAs, WASH Committees	County + Implementing Agents	Monthly	Captures local user feedback, complaints, and small-scale system issues
Development Partner Reports	UNICEF, World Bank, NGOs	Program Secretariat	Semi-Annual	Harmonizes project-specific M&E with CWSSIP performance indicators

All reports will be digitized where possible and geo-tagged using the County GIS-WASH dashboard.

7.3.2 Feedback, Grievance, and Adaptive Learning Mechanisms

To ensure community voices and on-the-ground realities inform strategic decisions, the CWSSIP will mainstream feedback loops at multiple levels:

7.3.2.1 Community and Beneficiary Feedback Systems

- Grievance Redress Mechanisms (GRMs) will be activated across all schemes, allowing users to lodge complaints via:
  - Toll-free lines,
  - SMS platforms,
  - Suggestion boxes at service points,
  - Ward-level public participation forums.
- Feedback resolution KPIs will be tracked (e.g., % of grievances resolved within 14 days).

7.3.2.2 Participatory Monitoring and Scorecards

- Community members and WRUAs will use participatory scorecards every six months to assess water point reliability, O&M, gender sensitivity, and pricing fairness.
- Findings will be reviewed during ward and sub-county sector meetings.

7.3.2.3 County and Interagency Review Platforms

- WASH Review Forums will be held twice annually, chaired by the CEC Water or Chief Officer, bringing together KEWASCO, WRUAs, health and education officials, NGOs, and development partners.
- Forums will serve as decision points for project prioritization, realignment, and emergency response.

7.3.2.4 Learning Missions and Knowledge Exchange

- Mid-term and endline independent evaluations will be commissioned by the County Planning Unit or donor partners to verify results and distill lessons.
- Kericho County will also participate in inter-county learning exchanges (e.g., through WASREB, K-WASH regional platforms).

7.3.3 Integration with National and Global Systems

The CWSSIP M&E system will link with:

- CIMES: County Integrated Monitoring and Evaluation System (for CIDP alignment)
- WASREB WARIS: Utility performance reporting (for national benchmarking)
- WRA Permit Compliance System: For abstraction, efluent discharge, and reserve flow tracking
- SDG 6 Reporting: Through collaboration with KNBS, MoWSI, and UNICEF on WASH SDG indicators

Each CWSSIP indicator has been mapped to relevant SDG 6 targets (e.g., 6.1, 6.2, 6.3) to ensure global reporting integration.

7.3.4 Data Use for Strategy Refinement and Resource Allocation

Monitoring data will be used not just for reporting but as a core input for strategic decision-making:

- Investment Reprioritization: Indicators such as functionality, population served, and scheme breakdowns will guide where new investments are allocated annually.
- Targeted Support: Equity indicators (e.g., access by female-headed households, low-income settlements) will trigger tailored interventions, including subsidies and emergency response.
- Performance-Based Funding: Utility performance on KPIs (e.g., NRW, billing, satisfaction) will inform funding eligibility, O&M subsidies, and capital financing.

7.4 Communication and Advocacy Plan

The CWSSIP recognizes that successful WASH sector reforms depend not only on funding and infrastructure but also on effective communication with stakeholders across all levels—from political leaders and donors to local communities and school administrators. Strategic messaging, inclusive stakeholder platforms, and clear feedback loops are crucial for maintaining transparency, fostering partnerships, and promoting behavior change.

The table below presents the key target audiences, messages, communication channels, and engagement frequency to guide advocacy efforts during CWSSIP implementation.

Table 7.6: Stakeholder Communication and Engagement Strategy

Target Group	Key Message	Medium/Channel	Frequency	Lead Entity
County Assembly	CWSSIP benefits, budget justification	Policy briefs, meetings	Quarterly	Dept of Water
Community Members	Hygiene, sanitation, and CLTS campaigns	Radio, barazas, posters	Monthly	Public Health
Schools	MHM, handwashing, safe toilets	Teacher toolkits, SMS	Termly	Dept of Education
Health Facilities	Infection prevention, WASH upgrades	MoH circulars, trainings	Quarterly	Dept of Health
Development Partners	Funding alignment, progress tracking	Joint reviews, dashboards	Biannual	WASH Hub
KEWASCO Customers	Tariffs, metering, and complaints channels	Billing inserts, USSD, app	Monthly	KEWASCO

Three core principles will guide the communication strategy:

- Inclusivity: Ensuring that all communities, including marginalized groups, youth, women, and persons with disabilities, are engaged in understanding and supporting WASH investments.
- Transparency and Accountability: To promote good governance, information about CWSSIP's progress, budgets, and outcomes should be publicly available.
- Stakeholder Alignment: Facilitating consistent messaging and coordination among County departments, KEWASCO, WRUAs, development partners, and community-based organizations.

7.4.1 Key Communication Strategies

The County will employ a mix of traditional and digital communication channels to target different stakeholder groups at the county, sub-county, and ward levels. The key strategies include:

Table 7.7: Key Communication Strategies

Communication Area	Proposed Strategies	Target Audience	Lead Institutions
Public Awareness on WASH Investments	Ward barazas, roadshows, market sensitization forums, radio talk shows (vernacular and English)	General public, households, market users	Dept. of Water, Health, and Communications
Institutional Communication	Circulars, internal memos, dashboards, interdepartmental TWG briefs	County Executive, Assembly, Departmental Heads	Dept of Water, County Secretary's Office
Development Partner Engagement	Biannual donor briefings, investment prospectuses, and CWSSIP updates shared via newsletters and reports	World Bank, UNICEF, LVSWWDA, WSTF, NGOs	Department of Water, Economic Planning Unit
Monitoring and Performance Feedback	Annual County WASH Scorecards, community monitoring boards, quarterly M&E reports	Communities, development partners, and county leadership	M&E Unit, Planning Department
Behavior Change and Social Mobilization	Drama festivals, IEC material (posters, flyers), school outreach, youth, and church engagements	Schools, youth, faith-based groups, and traders	Dept of Education, Youth, and Gender

Equity, MHM, and Climate Advocacy	Focused campaigns on gender, disability-friendly WASH, and climate adaptation	Women's groups, PWDs, WRUAs, community health units	Gender Unit, Climate Change Unit, Health

7.4.2 Implementation Tools and Channels:

a) Establishment of a County CWSSIP Communication Desk housed at the Department of Water and supported by the County Communications Directorate.
b) Development of a CWSSIP Communication Toolkit, including infographics, simplified versions of the CWSSIP, FAQs, and budget summaries.
c) Use of digital platforms, including the County website, social media channels (Facebook, WhatsApp groups, YouTube), and public service SMS blasts.
d) Annual CWSSIP Progress Dissemination Forums in each sub-county for citizen accountability and joint planning.

7.4.3 Communication Channels and Tools

To reach these groups effectively, a range of communication channels will be employed:

7.4.3.1 Mass Media and Public Platforms

- Local FM radio talk shows and public service announcements (PSAs)
- Regular press briefings on CWSSIP milestones
- Use of County social media platforms for updates and interactive engagement

7.4.3.2 Community-Based Communication

- Barazas (public meetings) with chiefs and ward reps
- CHV-led door-to-door sensitization on hygiene and water safety
- Community scorecards and feedback meetings
- Public murals and WASH message boards at water points, schools, and markets

7.4.3.3 Institutional Communication

- County WASH newsletters and investment bulletins
- Policy briefs for Members of County Assembly (MCAs)
- Partner coordination workshops and donor forums

7.4.3.4 School and Health Facility Communication

- Hygiene promotion through clubs, WASH champions, and school events
- Distribution of IEC materials tailored to children, youth, and caregivers
- Joint WASH and health campaigns tied to global days (e.g., World Water Day, Global Handwashing Day)

7.4.4 Advocacy Approaches

The advocacy component of the plan will focus on:

- Policy Advocacy: Promoting increased WASH funding in County Assembly debates, CIDP planning cycles, and ADP reviews.
- Budget Advocacy: Working with CSOs and media to track WASH budget allocations, disbursement, and utilization.
- Behavioral Advocacy: Encouraging safe sanitation, handwashing, and household water treatment through role models and CHV outreach.
- Equity and Gender Advocacy: Championing policies and investments that prioritize the needs of female-headed households, low-income areas, and vulnerable groups.

7.4.5 Feedback and Communication for Accountability

The Communication Plan will integrate citizen voice and feedback mechanisms including:

- Use of SMS-based complaints systems and suggestion boxes at facilities;
- County website and bulletin boards for publishing implementation progress, budgets, and audit summaries;
- Annual WASH forums to present performance reports, address citizen concerns, and highlight community WASH champions.

Each major CWSSIP investment will include a site-level signboard displaying:

- Project scope and timeline,
- Budget and funding sources,
- Implementing agency and contact person,
- GRM phone number or email.

7.4.6 Monitoring Communication Outcomes

The effectiveness of communication and advocacy efforts will be measured using indicators such as:

- % of population reached with WASH messages (via CHVs, media, school clubs, etc.);
- % of facilities with visible CWSSIP information displays;
- % of grievances received and resolved through communication platforms;
- % increase in handwashing, safe sanitation, or other behavior change practices.

Data will be collected through WASH program reports, CHV logs, school-based monitoring, and surveys.

7.4.7 Institutional Coordination

The County WASH Hub will lead communication efforts in collaboration with:

- County Communications Office,
- Department of Health (for hygiene and MHM messaging),
- Department of Education (for school-based engagement),
- Department of Environment (for conservation messaging),
- Development partners and CSOs.

A CWSSIP Communication Taskforce will be formed to oversee content development, message harmonization, and campaign rollout.

7.5 Risk and Mitigation Strategy

The successful implementation of the CWSSIP requires the proactive identification and management of strategic risks that could delay delivery, compromise quality, or reduce the intended outcomes. These risks encompass a range of institutional and financial risks, as well as environmental shocks and behavioral resistance.

The table below outlines the major risks anticipated during implementation, their likely impact on service delivery, and the mitigation strategies proposed to ensure continuity, efficiency, and resilience.

Table 7.8: Key Implementation Risks and Mitigation Measures

Risk Area	Description	Likely Impact	Mitigation Measure
Delays in Budget Disbursement	Late release of County/National funds	Project Delays	Phased procurement, bridge financing
Staff Turnover	Rotation or loss of trained WASH staff	Knowledge loss	Continuous capacity building, onboarding
Climate Shocks	Flash floods and droughts are disrupting infrastructure	Service Disruption	Climate-resilient designs, redundancy plans
Community Resistance	Poor uptake of latrines, FSM, and MHM	Low coverage	Community-led design, behavior campaigns
Low Data Quality	Inaccurate or inconsistent service data	Poor decision-making	Digital M&E tools, real-time dashboards

8.1 Conclusion

Kericho County stands at a defining moment in its pursuit of universal access to safe, affordable, climate-resilient, and inclusive water, sanitation, and hygiene (WASH) services. The Countywide Water and Sanitation Strategy and Investment Plan (CWSSIP) 2025–2030 sets out a bold and evidence-based roadmap to address persistent service gaps, institutional inefficiencies, and growing climate vulnerabilities. It presents a practical yet transformative pathway that unites infrastructure development, policy reform, community empowerment, and sustainable financing into one coherent framework.

This Strategy is grounded in detailed assessments, stakeholder consultations, and policy alignment with key national and global frameworks, including Kenya's Vision 2030, the Sustainable Development Goals (SDGs), the National Water and Sanitation Investment Plan (NAWASIP), and the K-WASH Program. It reflects the aspirations of Kericho residents—from urban centers like Kericho Town and Londiani to the rural villages of Kipkelion, Soin, and Bureti—who seek dignity, equity, and opportunity through reliable water and sanitation.

With an investment envelope of KSh 12.4 billion, the CWSSIP prioritizes high-impact, pro-poor interventions across the water supply, sanitation, and faecal sludge management, institutional reforms, climate resilience, and community-led service delivery. It also mainstreams gender, disability inclusion, environmental sustainability, and digital innovation. If fully implemented, the CWSSIP will:

- Elevate Kericho's WASH access indicators above the national average by 2030.
- Reduce health burdens associated with poor sanitation and waterborne diseases.
- Strengthen KEWASCO's performance, revenue base, and service reach.
- Empower WRUAs, schools, and communities to manage water resources sustainably.
- Position Kericho as a model county in the Lake Region Economic Bloc for WASH-driven development.

8.2 Recommendations

To ensure effective realization of this Strategy, the following strategic actions are recommended:

8.2.1 Investment and Financing

- Prioritize pro-poor infrastructure in underserved wards, schools, and health facilities through phased execution and catalytic financing.
- Operationalize the blended financing model, leveraging county budgets, NG-CDF, development partners, climate finance (e.g., FLLoCA), and public-private partnerships (PPPs).
- Ringfence WASH allocations in MTEF ceilings and align all ward-based budgets to the CWSSIP investment priorities.

8.2.2 Institutional Strengthening

- Legally anchor the County WASH Steering Committee (CWSSC) and institutionalize multi-sectoral coordination with representation from key departments and non-state actors.
- Digitize WSP operations through ERP, GIS asset management, and SCADA for improved efficiency, transparency, and customer satisfaction.
- Restructure rural water governance, empowering community schemes and transitioning toward sustainable and regulated service models.

8.2.3 Climate Resilience and Environmental Safeguards

- Scale climate-resilient WASH systems, such as solarized boreholes, elevated latrines, and rainwater harvesting in drought- and flood-prone areas.
- Integrate WRUA Sub-Catchment Management Plans (SCMPs) into county investment and land use plans, and enhance water source protection.
- Mainstream nature-based solutions and circular economy models, especially in FSM, waste-to-energy, and sustainable drainage.

8.2.4 Inclusivity and Gender Equity

- Implement gender-responsive and disability-friendly infrastructure in all public facilities, with a particular focus on menstrual hygiene management (MHM) in schools and marketplaces.
- Ensure 30% minimum women's representation in WASH committees, WRUAs, and FSM entrepreneur groups through policy enforcement.
- Address equity gaps in informal settlements, remote rural zones, and minority groups through data-driven targeting and affirmative programming.

8.2.5 Monitoring, Learning, and Communication

- Activate a county-level WASH dashboard to track real-time implementation progress, disaggregate outcomes, and support adaptive planning.
- Publish annual WASH scorecards and performance reports to promote accountability and citizen feedback.
- Scale communication campaigns to raise awareness on hygiene, climate resilience, tariffs, and community co-investment opportunities.

8.2.6 Political Leadership and Stakeholder Commitment

- Secure political buy-in at the County Executive and Assembly levels, ensuring that CWSSIP priorities are reflected in CIDP revisions and budget approvals.
- Maintain regular engagement with development partners, KEWASCO, WRA, LVSWWDA, and civil society to align technical assistance, funding, and programmatic support.
- Institutionalize WASH stakeholder forums at sub-county and county levels to enhance transparency, ownership, and sustainability of sector investments.

With sustained commitment, robust implementation, and collective action, Kericho County has the opportunity to transform its water and sanitation landscape, safeguard future generations, and become a beacon of WASH innovation and resilience in Kenya and beyond.

Appendix 1: Investment Needs and Priority Actions

The following table presents a detailed breakdown of the investment projects prioritized under the **Kericho County Performance Enhancement Framework** (PEF).

Each project is aligned with service delivery targets and is categorized by type, sub-county, cost estimate, and intended beneficiaries. These foundational projects are crucial for closing service coverage gaps in water supply and sanitation, and form part of the medium-term implementation plan.

Table 0.1: The Detailed WASH Investment Plan, Kericho County

Water supply infrastructure investment plan													
2025													
Chepngobob – Kiptegan Water Project Lastmile Connectivity	Kapsaos	Construction of distribution pipelines (last-mile connectivity)	2520993	0	264	water scarcity	KEWASCO	2520993					
Maso-Kewasco Lastmile connectivity Water Project	Kapsaos	Construction of distribution pipelines (last-mile connectivity)	3199950	0	352	water scarcity	KEWASCO	3199950					
Kaboswa Cheptagum Water Project Lastmile Connectivity	Kapsoit	Construction of distribution pipelines (lastmile connectivity)	2855809	0	176	water scarcity	KEWASCO	2855809					
Taiwet water Project	Kipchimchim	Construction of distribution pipelines (lastmile connectivity)	4479340	0	264	water scarcity	KEWASCO	4479340					
Rehabilitation and Extension of Seretut Water Project	Cheptororiet/ Seretut	Construction of distribution pipelines (lastmile connectivity)	3699618	0	176	water scarcity	KEWASCO	3699618					
Tegat Sachangwan-Choruet Water Project	Kapsuser	Construction of distribution pipelines (lastmile connectivity)	4076124	0	308	water scarcity	KEWASCO	4076124					
Kapsoroget-Kapkutei Lastmile Connectivity Water Project	Cheptororiet/ Seretut	Construction of distribution pipelines (lastmile connectivity)	2983694	0	220	water scarcity	KEWASCO	2983694					
Rehabilitation and Extension of Sosiot Water Project Lastmile Connectivity	Waldai	Supply and Installation of 32mm,50mm&63mm HDPE Pipelines	3236052	0	880	water scarcity	KEWASCO	3236052					
MASARIAN -SAMIYUTIK WATER PROJECT WATER PROJECT	Kapsuser	Construction of distribution pipelines (lastmile connectivity)	2692080	0	264	water scarcity	KEWASCO	2692080					
BROOK-KEWASCO LASTMILE CONNECTIVITY WATER PROJECT	Kapkugerwet	Construction of distribution pipelines (lastmile connectivity)	4167400	0	528	water scarcity	KEWASCO	4167400					
Ainamoi Kewasco Lastmile Connectivity Water Project	Ainamoi	Construction of distribution pipelines (lastmile connectivity)	4189546	0	528	water scarcity	KEWASCO	4189546					
Kipsolu Pipeline Water Project	Cheptororiet/ Seretut	Construction of distribution pipelines (lastmile connectivity)	3356170	0	176	water scarcity	KEWASCO	3356170					
Chepkurbet-Kewasco Lastmile connectivity water project	Kapsaos	Construction of distribution pipelines (lastmile connectivity)	3950426	0	220	water scarcity	KEWASCO	3950426					
SULVAN-ANNEX WATER PROJECT	Kapkugerwet	Construction of distribution pipelines (lastmile connectivity)	1199046	0	220	water scarcity	KEWASCO	1199046					
Borborwet Water Project	Kapsuser	Construction of distribution pipelines	22829814	0	264	water scarcity	KEWASCO	22829814					
Lelatich water project phase II	Waldai	Construction of extension Pipelines, Provision and Installation of Chlorine Dosers	2047168	0	660	water scarcity		2047168					
Simotwet borehole water project	Kunyak	Borehole Equipping, Installation of solar system, Installation of 2No. 10m3 UPVC Plastic Tanks on a masonry platform, Construction of a Rising Main and Distribution Pipeline, Construction of water points	4795379.68	0	308	water scarcity		4795379.68					
CHEPTANGULGEI WATER PROJECT	Kedowa/ Kimugul	Supply and installation of submersible motor, Construction of Distribution Pipeline and Communal Yard Points	1799160	0	264	water scarcity		1799160					
Kipkoyo Water Project	Kedowa/ Kimugul	Construction of distribution pipelines, Supply and installation of 2No. 10m3 UPVC tanks	1808858	0	308	water scarcity		1808858					
Londiani Water Supply Project Lastmile Connectivity	Kedowa/ Kimugul	Supply and Installation of Pumpset and Construction of HDPE Pipeline	3075000	0	88	water scarcity	KEWASCO	3075000					
Itoik/Farmers borehole water Project	Londiani	Solarization, supply and installation of 10m3 elevated UPVC tank and fencing works	2486682.72	0	88	water scarcity		2486682.72					
Jagoror borehole water project	Londiani	Borehole Equipping and Solarisation, Pipeworks and Communal Water Points	3508443.20	0	264	water scarcity		3508443.20					
Kabarak borehole water project	Londiani	Solarization, supply and installation of 10m3 elevated UPVC tank and fencing works	3957953.06	0	88	water scarcity		3957953.06					
Kapcheplanga Water project	Londiani	Solarization, camera inspection, borehole flushing, rehabilitation of 50m3 tank and fencing	4278445.40	0	440	water scarcity		4278445.40					
Katet Water Project	Londiani	Installation of Pumpset & Solarization and fencing	2235180.80	0	176	water scarcity		2235180.80					
Kapkondor/Cheusi/Setek/Itoik Water Project	Londiani	Construction of 4.3Km 32mm, 3Km 50mm HDPE pipelines	4188702	0	352	water scarcity		4188702					
Chepkosilen borehole water project.	Kabianga	Installation of solar system, equipping of borehole; construction of control house; rising main; elevated storage tank; distribution pipeline; communal water points; fencing anof the solar structure area	4559004.16	0	528	water scarcity		4559004.16					
Cheptuyet borehole water project	Sigowet	Construction of 1no. Raised steel tank, distribution Pipelines, Solarization, equipping, Fencing and kiosk	4988128.76	0	220	water scarcity		4988128.76					
Sorget Primary School borehole water project	Tendeno/ Sorget	Construction of a 24m3 elevated steel water tank on a steel tower	3410950	0	220	water scarcity		3410950					
ENGINIT BOREHOLE WATER PROJECT	Londiani	Equipping of borehole, solarization,construction of elevated tank, rising and distribution pipelines, communal water points;renovation of masonry tank.	4300010.96	0	132	water scarcity		4300010.96					
Kiboe Phase I water project	Kapsuser	Rehabilitation of spring protection,Construction of 100m3 sump and rising Main,Renovation of 50m3 Masonry Tank	3869660.47	0	0	water scarcity		3869660.47					
Kapkondor/Cheusi/Setek/United Water Project	Londiani	Supply and Installation of 8 no.Upvc storage tanks	2005408	0	0	water scarcity		2005408					
CHESIRE WATER PROJECT	Soliat	Construction of 2No. Spring Protection, 100M3 Masonry Sump, Rehabilitation of 100m3 Masonry tank	4711111.71	0	0	water scarcity		4711111.71					
CHESIRE WATER PROJECT SOLARIZATION	Soliat	Supply and Installation of Pumpset and solar power	4889719	0	0	water scarcity		4889719					
Chepkeikei water project phase II	Cheboin	Construction of Distribution pipeline, communal water points and control panel house	4537763.40	0	1320	water scarcity		4537763.40					
Kondamet spring Brooke Water Project Phase II	Kapkugerwet	Supply and installation of solarised pumpset, Construction of 20m3 elevated UPVC storage tanks,Rising main, distribution pipeline , washing bay, public water points, soakaway pit and fencing off project site	4530820.80	0	880	water scarcity		4530820.80					
Cherire Solarisation Water Project	Sigowet	Installation of a pumpset, solar system, construction of a pump house and fencing	4245136	0	660	water scarcity		4245136					
Kiboe Phase II Water Project	Kapsuser	Supply and Installation of Solar System,Pumpset and Construction of Control House	2668779.01	0	968	water scarcity		2668779.01					
Chemutian Water Project Phase II	Soliat	Installation of Submersible Pumpset, Solar System, Constuction of 50m3 Masonry tank and Pipe work	4943602.74	0	264	water scarcity		4943602.74					
Sombicho Water Project	Soliat	Construction of distribution pipeline	2499850	0	88	water scarcity		2499850					
Kinyose Water Project Phase II	Kipchimchim	Construction of distribution pipelines	3849576	0	264	water scarcity		3849576					
CHESICHE WATER PROJECT	Soliat	Pipeworks and communal water points	4893605	0	880	water scarcity		4893605					

Proposed rehabiliation and Construction of Kapkures Water Supply Project	Chilchila	Construction of new tanks and distribution pipelines.	24000000	0	1554	water scarcity		24000000					
Kenegut - Koisagat Water Project	Kapsoit	Construction of 50m3 masonry tank, construction of rising main	2870744.80	0	88	water scarcity		2870744.80					
Kesabo Water Project	Kamasian	Construction of distribution pipelines	1970747.20	0	88	water scarcity		1970747.20					
Borowet-Kasheen Water Project	Kamasian	Construction of extension pipelines	2955637.31	0	220	water scarcity		2955637.31					
Kimologit–KasongochoWater Project	Kamasian	Construction of extension pipelines	3599770	0	220	water scarcity		3599770					
Ngendalel Kimologit Water Project	Kamasian	Construction of extension pipelines	1359288	0	154	water scarcity		1359288					
Kimologit-Murao Water Project	Kamasian	Construction of extension pipelines	4964066.88	0	352	water scarcity		4964066.88					
Proposed Rehabilitation and construction of Kimologit water project	Kamasian	Construction of Composite filtration units on Tinga Farm and distribution pipelines	24691891	0	2909	water scarcity		24691891					
Bechulelach water project	Ainamoi	Construction of Intake works, Gravity mains, treatment works,storage tanks, distribution pipelines	30000000	0	220	water scarcity		30000000					
Chebilawa Kusumek water project	Chemosot	Construction of spring, Solarization and pump set,construction of sump,rising and distribution Pipeline	12000000	0	440	water scarcity		12000000					
Tulwapmoi Water Project Phase II	Chilchila	Construction of Main and distribution pipeline, storage tanks and water points	13579127.62	0	440	water scarcity		13579127.62					
Kendabei water Project	Kabianga	Upgrading of Electricity and Last mile Connectivity	5000000	0	1320	water scarcity		5000000					
Expansion of Seretut KEWASCO Water Supply Project	Cheptororiet/ Seretut	Construction of distribution pipelines (lastmile connectivity). Funded by a grant through the Embassy of Japan (JICA)	12000000	0		water scarcity		0		12000000			
2026													
Bureti Water Supply	Bureti Subcounty	Construction of main trunk line from Kapsuser to Roret, distribution pipelines and last mile connectivity	108000000	0	11880	water scarcity	KEWASCO	108000000					
Proposed rehabilitation and improvement of Kapsoit KEWASCO Water Supply Project	Kapsoit	The Kapsoit KEWASCO Water Supply Project is situated in Kapsoit ward, Ainamoi Sub-county, Kericho County. The project aims to extend the existing water distribution pipeline network to reach underserved households in Kapsoit Ward. This extension will significantly improve household access to potable water and reduce reliance on non-sustainable water sources, such as donkey water supply, which is both inefficient and labor-intensive.	19000000	0	2090	water scarcity	KEWASCO	19000000					
Bechulelach water project Phase II	Ainamoi	Construction of storage tanks, distribution pipelines, and last-mile connectivity	29747545.62	0	1936	water scarcity		29747545.62					
Last mile connectivity Ainamoi	Ainamoi	Last mile connectivity in Ainamoi centre and neighbouring schools and metering all the connected customers	5000000	0	440	water scarcity		2500000				2500000	
Proposed Chepsir – Kwenet- Kiplelachbei water project Phase II	Chepseon	The project contains construction of water treatment, storage tanks and distribution pipelines	10000000	0	8378	water scarcity		10000000					
Proposed Rehabilitation and Upgrading of Raw water to treated for Fortenan and Kipsitet water supply scheme	Chilchila & Soin	Rehabilitation and Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	60000000	0	9794	water scarcity		60000000					
Kabianga Water Project	Kabianga	Last mile connectivity	15000000	0	22093	water scarcity		15000000					
Kaplutiet borehole water project	Kabianga	Borehole Equipping ,Solarization of borehole, installation of UPVC tanks and pipework, communal water points and last mile connectivity	5000000	0	440	water scarcity		5000000					
Kamondoi borehole water project		Drilling and Equipping ,Solarization of borehole, installation of UPVC tanks and pipework, communal water points and last mile connectivity	6000000	0	1320	water scarcity		6000000					
Proposed rehabilitation and Expansion of Mtaragon-Nyairobi water supply project in Kamasian Ward	Kamasian	This is a small gravity scheme and will serve about 180 households. it abstracts water from protected springs. Involves Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	12000000	0	180	water scarcity		2400000				9600000	
Cheptagum borehole water project	Kaplelartet	Equipping and Solarization, installation of 10m3 upvc plastic tanks, distribution pipelines and water points	2000000	0	308	water scarcity		2000000					
Proposed Kaplelartet Cheptagum Water Supply	Kaplelartet	Driiling of 2no. Boreholes at Iraa, cheptagum,equipping them with solar sytem for pumping and customer metering. It is a climate proofed water supply project.	12000000	0	5280	water scarcity						12000000	
Kipngetuny Water project	Kapsuser	Installation of pump set, electrification, distribution pipelines and last mile connectivity	7000000	0	880	water scarcity		7000000					
Soliat Water Supply Project	Soliat	üConstruction of 1Km Raw water Gravity Main. ü Construction of full Treatment works. ü 4No. 50m3 masonary Tank and 2No. 100m3 masonry tanks. ü 22Km Treated Water Gravity Distribution pipelies ü Acquisition of land.	153000000	0	8078	water scarcity		12600000				122400000	
Proposed Construction of Chebululu(Soin) water Supply	Soin	Rehabilitation of. Intake Works . Construction of 4.5Km Raw water Gravity Main. Construction of full Treatment works. 4No. 50m3 masonary Tank and 2No. 100m3 masonry tanks. 15Km Treated Water Gravity Distribution pipelies and solar booster pump. Acquisition of land.	120000000	0	5549	water scarcity						120000000	
Proposed Rehabilitation and Expansion of Bargechech and Chilchila Pan water supply projects in Chepseon Ward	Chepseon	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	30000000	0	5698	water scarcity		6000000				24000000	
Proposed rehabilitation and Expansion of Tendwet water supply project in Kunyak Ward	Kunyak	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	8000000	0	706	water scarcity		8000000				17600000	
Proposed Contruction water supply projects to Tugunon, Malaget, Barotion, Chesinende, Tulwap, Chepseon, Chepsir in Kipkelion East	Kipkelion East Subcounty	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	87600000	0	9548	water scarcity		17520000				70080000	
Proposed rehabilitation and Expansion of Kapchorwa water supply project in Kamasian Ward	Kamasian	This is a small gravity scheme and will serve about 150 households. it abstracts water from protected springs. Involves Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	12000000	0	150	water scarcity		2400000				9600000	
Proposed rehabilitation and Expansion of Fort Ternan Health Centre water supply project in Chilchila Ward	Chilchila	Construction and rehabilitation of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	25000000	0	623	water scarcity		10000000				15000000	

Proposed last mile connectivity for KEWASCO Water Supply in Belgut SubCounty	Belgut Subcounty	This project involves expansion of pipeline distribution network in underserved areas of Waldai and Kapsuser wards	15000000	0	1320	water scarcity		10000000				5000000	
Proposed improvement of Mosore Water Project	Kisiara	This involves installation of solar system and pump set, construction of pumphouse, treatment works rising main pipeline, construction of 50m3 tank and distribution pipelines	13750000	0	1672	water scarcity		5000000				8750000	
Add more rows if necessary													
2028													
Kiptunoi Water Supply Project	Kapsoit	Construction of Intake Works. 1.4Km Pumping Main. 7Km Potable Water Gravity Main. ü Solarization of the system. Ground level clear water Tank (100M3). 10Km Distribution main. Construction of 2 No. ground level masonry water tanks ü Construction of treatment works	35868456.84	0	986	water scarcity		15868456.84				20000000	
Proposed expansion of Sasur water Supply project	Kaplelartet	Construction of Treatment works. Construction of 2No. 50m3 masonary Tank. Construction of distribution pipelines	30000000	0	1805	water scarcity		15000000				15000000	
Kaptalamwa Water Supply Project	Soin	Rehabilitation of intake works. Construction of 100m3 masonry tanks. 15Km Water Gravity Distribution pipelies Acquisition of land.	56731978	0	6754	water scarcity		36731977.51				20000000	
Proposed Rehabilitation of Tuiyobei Water Supply Project	Kipkelion	The project has been partly operational since 2015.It abstracts water dammed from a swamp. The project is partly complete.The pan needs to be expanded. The project entails; water intake rehabilitation;rehabilitation of catchment area;construction of water treatment works, Rehabilitation and completion of Main transmission pipelines and distribution lines; Rehabilitation of Masonry storage tanks.	35787775	0	3142	water scarcity		7157554.95				28630219.82	
Proposed rehabilitation and Expansion of Magiche water supply project in Chilchila Ward	Chilchila	Construction and rehabilitation of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	30500000	0	4400	water scarcity		10500000				2000000	
Proposed rehabilitation and Expansion of Chesonoi water supply project in Kunyak Ward	Kunyak	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	6000000	0	855	water scarcity		6000000				17600000	
Enhancement of Kiberengwe Water Project	Chepseon	Construction of treatment facilities, distribution pipelines and storage tanks	15000000	0	660	water scarcity		5000000				1000000	
Proposed construction and rehabilitation of Kondamit-Sosiot Water Project	Waldai	This project involves rehabilitation of intake works, construction of gravity mains, simple treatment works, storage tanks and distribution pipelines	12500000	0	1760	water scarcity		4500000				8000000	
Expansion of KEWASCO Water Supply in Bureti Subcounty	Bureti Subcounty	Construction and rehabilitation of distribution pipelines and last mile connectivity in underserved areas of Litein, Cheboin, Chemosot, Kisiara, Tebesonik, Kapkatet and Cheplanget Wards	32000000	0	3520	water scarcity	KEWASCO	80000000				24000000	
2029													
Kapkenyoloi- Kaitui-Kabosenwa Water Project.	Soliat	De silting of. 2No.Intake Works . Construction of 2.5Km Raw water Gravity Main. Construction of 2No.full Treatment works. 4No. 50m3 masonary Tank .. 12Km Treated Water Gravity Distribution pipelies ü Acquisition of land.	35000000	0	3520	water scarcity		7000000				28000000	
Proposed construction of Kabarus Water Supply Project	Ainamoi	The project contains construction of intake facilities, water treatment, storage tanks, gravity mains and distribution pipelines	31000000	0	1320	water scarcity		6200000				24800000	
Kabore Water Project	Soin	Rehabilitation of Intake Works . Rehabilitation of 2Km Raw water Gravity Main.	30000000	0	3274	water scarcity		6000000				24000000	
Sombicho Water Project Phase II	Soliat	Rehabilitation of. Intake Works . Construction of 2Km Raw water Gravity Main. Construction of full Treatment works. 2No. 50m3 masonary Tanks. 12Km Treated Water Gravity Distribution pipelies Acquisition of land.	30000000	0	6314	water scarcity		5000000				25000000	
Proposed rehabilitation and Expansion of Lelechwet Pan, Cherotuk, Machilil dam, Kapkiyai, Segetet borehole water supply projects in Kipkelion Ward	Kipkelion	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	35500000	0	4233	water scarcity		7100000				28400000	
Proposed rehabilitation and Expansion of Kapkese-Kaplelit-Cherara water supply project in Chilchila Ward	Chilchila	Construction and rehabilitation of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	25000000	0	2420	water scarcity		8500000				16500000	
Proposed Rehabilitation and Expansion of Tegunot, Kiplelechon, Kedowa/Ndarugu, Masaita, water supply projects in Kedowa/Kimugul Ward	Kedowa/ Kimugul	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	120000000	0	3678	water scarcity		24000000				96000000	
2030													
Kipkok Water Supply Project	Kaplelartet	Protection of 5No. Springs. Construction of Solarized pumping unit.. Construction of 100m3 masonry tanks. 2No. 50m3 masonary Tanks.. 15Km Water Gravity Distribution pipelies Construction of Treatment works Acquisition of land	80000000	0	8932	water scarcity		15000000				65000000	

Kapkatit Water Project	Soin	Installation of Solar Equipment with a submersible pump, Construction of 150m3 ,Construction of 2No. 50m3 masonry tankss , Fencing off restricted ares. And Steel Gate	30000000	0	3274	water scarcity		6000000				24000000	
Proposed Rehabilitation and Expansion of Jagoror, Kiptangit, Barotion & Cheres water supply projects in Londiani Ward	Londiani	Construction of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	20000000	0	2900	water scarcity		4000000				16000000	
Proposed rehabilitation and Expansion of Ndubusat water supply project in Chilchila Ward	Chilchila	Construction and rehabilitation of intakes (surface water sources), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	23500000	0	2475	water scarcity		6500000				17500000	
Proposed rehabilitation and Expansion of Chesitkei water supply projects in Chilchila Ward	Chilchila	Construction and rehabilitation of intakes (spring), treatment facilities, transmission mains, water distribution network, tanks and last mile connections	7000000	0	800	water scarcity		2000000				5000000	
Add more rows if necessary			2498842326.68										
Sanitation and Hygiene Services Investment Plan													
2024													
WASH IN Health		Construction of Septic Tanks, Soakage Tanks,Incinerator Houses, Patients/Staffs Latrines and Placenta Pits	30000000					30000000					
2025													
CLTS		Implementation of CLTS protocal in 300 villages i.e. Pretrigerring, trigerring, follow up,verification, certification, quality control and celebration	49052133	0	30000			24526066				24526066	
WASH in schools		Construction of Onsite Sanitation abulution blocks in 79 schools and; provision of handwashing facilities & promotion of hygiene in 79 schools and Formation of school health clubs focussing on WASH (Innitiation, distribution of IEC materials, Inter-schools competition	158200000	0	39500			79100000				79100000	
WASH in Health Care Facilities		Construction of 6 door sanitary block (pit latrine)in 48 level 2 & 3 health facilities(Guttering, Installation of 5000 litres water tanks and Handwahing facilities) Provision of 2500 litres Upvc tanks on a steel structure approximately 1,5 metres high complete with taps. This will include facilities for harvesting rain water. Construction of septic tanks and drainage; cocnstruction of sanitary facilities,Construction of housing , storage and pavements for installation of Health care waste management microwave at Kapkatet Sub-County Hospital ,Renovation of HCWM incinerators at Londiani SCH ,Procurement of 60,000 bin liners for each of the 48 public level 2 and 3 facilities annually,Procurement of fuel for HCW collection vehicle,utility vehicle and incinerators,Procure PPEs for HCWM handlers (overalls, head gears, gloves & Gum boots)	131539900	0	30000			65769950				65769950	
WASH in Health Care Facilities		Procurement of one special purpose vehicle for Health Care Waste collection	12000000	0	191 HCF			2000000					10000000
WASH in Health Care Facilities		Procurement of one utility vehicle for supervision of K-Wash activities	10000000	0	6 Sub Counties			2000000					8000000
2026													
CLTS		Implementation of CLTS protocal in 300 villages i.e. Pretrigerring, trigerring, follow up,verification, certification, quality control and celebration	49052133	0	30000			24526066				24526066	
WASH in schools		Construction of Onsite Sanitation abulution blocks in 79 schools and; provision of handwashing facilities & promotion of hygiene in 79 schools and Formation of school health clubs focussing on WASH (Innitiation, distribution of IEC materials, Inter-schools competition	158200000	0	39500			79100000				79100000	
WASH in Health Care Facilities		Construction of 6 door sanitary block (pit latrine)in 48 level 2 & 3 health facilities(Guttering, Installation of 5000 litres water tanks and Handwahing facilities) Provision of 2500 litres Upvc tanks on a steel structure approximately 1,5 metres high complete with taps. This will include facilities for harvesting rain water. Construction of septic tanks and drainage; cocnstruction of sanitary facilities ,Procurement of 60,000 bin liners for each of the 48 public level 2 and 3 facilities annually,Procurement of fuel for HCW collection vehicle,utility vehicle and incinerators,Procure PPEs for HCWM handlers (overalls, head gears, gloves & Gum boots),Procurement of NEMA licence for HCW collection vehicle	93221500	0	30000			46610750				44573150	
WASH in Health Care Facilities		Procurement of one HCW collection Vehicle	12000000	0	191 HCF			4000000					8000000
WASH in Health Care Facilities		Procurement of 6 motorbikes (Yamaha DT 175cc) (inclusive of PPE set)f	3600000	0	6 Sub Counties			1600000					2000000
2027													
CLTS		Implementation of CLTS protocal in 300 villages i.e. Pretrigerring, trigerring, follow up,verification, certification, quality control and celebration	49052133	0	30000			24526066				24526066	
WASH in schools		Construction of Onsite Sanitation abulution blocks in 79 schools and; provision of handwashing facilities & promotion of hygiene in 79 schools and Formation of school health clubs focussing on WASH (Innitiation, distribution of IEC materials, Inter-schools competition	158200000	0	39500			79100000				79100000	
WASH in Health Care Facilities		Construction of 6 door sanitary block (pit latrine)in 48 level 2 & 3 health facilities(Guttering, Installation of 5000 litres water tanks and Handwahing facilities) Provision of 2500 litres Upvc tanks on a steel structure approximately 1,5 metres high complete with taps. This will include facilities for harvesting rain water. Construction of septic tanks and drainage; cocnstruction of sanitary facilities ,Procurement of 60,000 bin liners for each of the 48 public level 2 and 3 facilities annually,Procurement of fuel for HCW collection vehicle,utility vehicle and incinerators,Procure PPEs for HCWM handlers (overalls, head gears, gloves & Gum boots),Procurement of NEMA licence for HCW collection vehicle	89146300	0	30000			44573150				44573150	

2028													
CLTS		Implementation of CLTS protocal in 300 villages i.e. Pretrigerring, trigerring, follow up,verification, certification, quality control and celebration	49052133	0	30000			24526066				24526066	
WASH in schools		Construction of Onsite Sanitation abulution blocks in 79 schools and; provision of handwashing facilities & promotion of hygiene in 79 schools and Formation of school health clubs focussing on WASH (Innitiation, distribution of IEC materials, Inter-schools competition	158200000	0	39500			79100000				79100000	
WASH in Health Care Facilities		Construction of 6 door sanitary block (pit latrine)in 48 level 2 & 3 health facilities(Guttering, Installation of 5000 litres water tanks and Handwahing facilities) Provision of 2500 litres Upvc tanks on a steel structure approximately 1,5 metres high complete with taps. This will include facilities for harvesting rain water. Construction of septic tanks and drainage; cocnstruction of sanitary facilities ,Procurement of 60,000 bin liners for each of the 48 public level 2 and 3 facilities annually,Procurement of fuel for HCW collection vehicle,utility vehicle and incinerators,Procure PPEs for HCWM handlers (overalls, head gears, gloves & Gum boots),Procurement of NEMA licence for HCW collection vehicle	86746300	0	30000			43373150				43373150	
2029													
CLTS		Implementation of CLTS protocal in 300 villages i.e. Pretrigerring, trigerring, follow up,verification, certification, quality control and celebration	49052133	0	30000			24526066				24526066	
WASH in schools		Construction of Onsite Sanitation abulution blocks in 79 schools and; provision of handwashing facilities & promotion of hygiene in 79 schools and Formation of school health clubs focussing on WASH (Innitiation, distribution of IEC materials, Inter-schools competition	158200000	0	39500			79100000				79100000	
WASH in Health Care Facilities		Construction of 6 door sanitary block (pit latrine)in 48 level 2 & 3 health facilities(Guttering, Installation of 5000 litres water tanks and Handwahing facilities) Provision of 2500 litres Upvc tanks on a steel structure approximately 1,5 metres high complete with taps. This will include facilities for harvesting rain water. Construction of septic tanks and drainage; cocnstruction of sanitary facilities ,Procurement of 60,000 bin liners for each of the 48 public level 2 and 3 facilities annually,Procurement of fuel for HCW collection vehicle,utility vehicle and incinerators,Procure PPEs for HCWM handlers (overalls, head gears, gloves & Gum boots),Procurement of NEMA licence for HCW collection vehicle	85246300	0	30000			42623150				42623150	
2030													
CLTS		Implementation of CLTS protocal in 300 villages i.e. Pretrigerring, trigerring, follow up,verification, certification, quality control and celebration	49052133	0	30000			24526066				24526066	
WASH in schools		Construction of Onsite Sanitation abulution blocks in 79 schools and; provision of handwashing facilities & promotion of hygiene in 79 schools and Formation of school health clubs focussing on WASH (Innitiation, distribution of IEC materials, Inter-schools competition	156200000	0	39500			78100000				78100000	
WASH in Health Care Facilities		Construction of 6 door sanitary block (pit latrine)in 48 level 2 & 3 health facilities(Guttering, Installation of 5000 litres water tanks and Handwahing facilities) Provision of 2500 litres Upvc tanks on a steel structure approximately 1,5 metres high complete with taps. This will include facilities for harvesting rain water. Construction of septic tanks and drainage; cocnstruction of sanitary facilities ,Procurement of 60,000 bin liners for each of the 48 public level 2 and 3 facilities annually,Procurement of fuel for HCW collection vehicle,utility vehicle and incinerators,Procure PPEs for HCWM handlers (overalls, head gears, gloves & Gum boots),Procurement of NEMA licence for HCW collection vehicle	85246300	0	30000			42623150				42623150	
Water Resources Management and Catchment Conservation Investment Plan													
2026													
Implementation of Timbilil Sub-Catchment Management Plan (SCMP)		Sub-catchment zoning, Awareness of WRUA members on area coverage, Inventorize all water sources, Carry out water discharge and water quality measurement along the Dionsoyet River, Carry out Abstraction & water use efficiency surveys, Develop Water Allocation Plan (WAP), Development of strategy for resource protection, Rehabilitation and protection of forest & wetlands, Promotion of soil and water conservation within the sub catchment, Promote active institutional collaboration and networking of stake-holders, Improve water storage within the sub catchment & protect springs to improve water quality, Empower specialized groups in sub-catchment water resources management, Establish water resources, water use and catchment monitoring network and share information with all relevant stakeholders, Capacity building on financial management	35918000										35918000
2027													
Implementation of Dionysoet Sub-Catchment Management Plan (SCMP)		Sub-catchment zoning, Awareness of WRUA members on area coverage, Inventorize all water sources, Carry out water discharge and water quality measurement along the Dionsoyet River, Carry out Abstraction & water use efficiency surveys, Develop Water Allocation Plan (WAP), Development of strategy for resource protection, Rehabilitation and protection of forest & wetlands, Promotion of soil and water conservation within the sub catchment, Promote active institutional collaboration and networking of stake-holders, Improve water storage within the sub catchment & protect springs to improve water quality, Empower specialized groups in sub-catchment water resources management, Establish water resources, water use and catchment monitoring network and share information with all relevant stakeholders, Capacity building on financial management	57432000			water scarcity, Landslide, Flooding							57432000
2028													
Implelementation of Yurith Sub-Catchment Management Plan (SCMP)		Sub-catchment zoning, Awareness of WRUA members on area coverage, Inventorize all water sources, Carry out water discharge and water quality measurement along the Dionsoyet River, Carry out Abstraction & water use efficiency surveys, Develop Water Allocation Plan (WAP), Development of strategy for resource protection, Rehabilitation and protection of forest & wetlands, Promotion of soil and water conservation within the sub catchment, Promote active institutional collaboration and networking of stake-holders, Improve water storage within the sub catchment & protect springs to improve water quality, Empower specialized groups in sub-catchment water resources management, Establish water resources, water use and catchment monitoring network and share information with all relevant stakeholders, Capacity building on financial management	35981000										35981000

Appendix 2: WASH Expenditure and Investment

Table 0.2: WASH Expenditure and Investment

WASH Expenditure and Investment						
Sector Historic Expenditure Patterns						
Budgeted sector expenditure	**Unit**		**2022**	**2023**	**2024**	**2025**
Water supply expenditure - Capex	Ksh		305088466	382840767.69	572570050	593482722
Water supply expenditure - OpEx	Ksh		165712551	154934193	174261279	174994615
Sewered sanitation expenditure - Capex	Ksh					
Sewered sanitation expenditure - OpEx	Ksh					
Non-sewered sanitation expenditure - Capex	Ksh			6199218.90		30000000
Non-sewered sanitation expenditure - OpEx	Ksh					
Total	**Ksh**		**470,801,017.8**	**543,974,179.6**	**746,831,329.0**	**798,477,337.0**
Actual sector expenditure	**Unit**		**2022**	**2023**	**2024**	**2025**
Water supply expenditure - Capex	Ksh		282122175	318581700	202058596	212062997.75
Water supply expenditure - OpEx	Ksh		151499095	154934193	157881593	61233763
Sewered sanitation expenditure - Capex	Ksh					
Sewered sanitation expenditure - OpEx	Ksh					
Non-sewered sanitation expenditure - Capex	Ksh					30000000
Non-sewered sanitation expenditure - OpEx	Ksh					
Total	**Ksh**		**433,621,270.0**	**473,515,893.0**	**359,940,189.0**	**303,296,760.8**

WASH Service Coverage Scenarios, Investments, and Reform Needs

Investment needs for water and sanitation	**Unit**	**Current value**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Current urban population	#	120,724.0									
Current rural population	#	878,330.0									
Average urban population growth rate (%)	%	0.0									
Average rural population growth rate (%)	%	0.0									
Expected urban population	#		125252	129951.	134826	139884	145132	150576	156225.3364	162085	168166
Expected rural population	#		888871	899538	910334	921259.455	932315.7446	943504	954827	966287	977883.
Expected increase in urban households	#		905	939	97515521	1011.577791	1049.526152	1088	1129.747067	1172	1216
Expected increase in rural households	#		2108	2133	2159	2185.03471	2211.257916	2237	2264.652241	2291	2319
Cost of connecting one household to urban water supply (Ksh)	Ksh	43,700									
Cost of providing safely-managed water access to one rural household (Ksh)	Ksh	15,600									
Cost of connecting one household to sewered sanitation system	Ksh	54,000									
Cost of providing safely-managed non-sewered sanitation access to one household (Ksh)	Ksh	11,600									
Investment need for urban water supply	Ksh		39582095	41066979	42607567.83	44205949	45864292	47584847	49369946	51222012	53143556
Investment need for rural water supply	Ksh		99086	100275	101478.7567	102696	103929	105176	106438	107716	109008
Investment need for sewered sanitation	Ksh		48911514	50746382	52650083	54625200	56674412.2	58800497	61006341	63294935	65669383
Investment need for non-sewered sanitation	Ksh		24455308	24748803	25045820	25346402	25650591.83	25958431.67	26269965	26585239	26904295
Total investment need for water and sanitation	**Ksh**		**113048005**	**116662441**	**120404951**	**124280249.44**	**128293225.98**	**132448953.31**	**136752693**	**141209903**	**145826245**
Water and wastewater treatment capacity needed	**Unit**	**Current value**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Current domestic water demand	m3/day	44131.18									
Current population with access to safely managed water	#	22.78									
Water demand per capita	m3/day/capita	1937.277513									
Total water demand	m3/day		242649518	251752279	261196522	270995057.	281161174	291708663	302651831.2	314005521	325785134
New water treatment capacity needed	m3/day		242605386	9102761	9444242	9798534	10166117.07	10547489	10943167	11353690	11779612
New wastewater treatment capacity needed	m3/day		242605386	9102761	9444242	9798534	10166117	10547489	10943167	11353690	11779612

Appendix 3: WASH Funding

Table 0.3: WASH Funding

WASH Funding					
Sector Funding Arrangement					
Water supply funding source	**Unit**	**2022**	**2023**	**2024**	**2025**
County Budgets	Ksh	244268466	278748416	250410945	210010917
National Government Transfers	Ksh				
Development Partners (Donors)	Ksh	11320000	59125002	298159105	358471805
Private Sector Contributions	Ksh				
Water sector trust fund (WSTF) Kapsoit - Sosiot water project	Ksh		19348514		
Embassy of Japan					
Other (Specify)					
Total	**Ksh**	**255,588,466**	**357,221,933**	**548,570,050**	**568,482,722**
Sewered sanitation funding source	**Unit**	**2022**	**2023**	**2024**	**2025**
County Budgets	Ksh				
National Government Transfers	Ksh				
Development Partners (Donors)	Ksh				
Private Sector Contributions	Ksh				
Other (Specify)	Ksh				
Water sector trust fund (WSTF)	Ksh				
Total	**Ksh**	**-**	**-**	**-**	**-**
Non-sewered sanitation funding source	**Unit**	**2022**	**2023**	**2024**	**2025**
County Budgets	Ksh				30000000
National Government Transfers	Ksh				
Development Partners (Donors)	Ksh				
Private Sector Contributions	Ksh				
Other (Specify)	Ksh				
Water sector trust fund (WSTF) Kapkatet (PSF)			**6,199,218**		
Total	**Ksh**	**-**	**6,199,218**	**-**	**30,000,000**
Total WASH sector	**Unit**	**2022**	**2023**	**2024**	**2025**
County Budgets	Ksh	244,268,466	278,748,416	250,410,945	240,010,917
National Government Transfers	Ksh	-	-	-	-
Development Partners (Donors)	Ksh	11,320,000	59,125,002.0	298,159,105	358,471,805
Private Sector Contributions	Ksh	-	-	-	-
Other (Specify)	Ksh	19,348,514.9	#REF!	-	-
Total	**Ksh**	**255,588,466**	**363,421,152**	**548,570,050**	**598,482,722**

Annex 4: Projected Inflows and Value Returns for Key WASH Investments

This annex explains the Financial and Development Value of CWSSIP Investments

The Kericho County CWSSIP outlines a total investment envelope of **KES 12.3 billion** across water supply, sanitation, hygiene, institutional reforms, and water resources management. While the investment costs are comprehensively presented in Chapters 4 and 5, Annex 4 now complements this by systematically detailing the **projected inflows and value returns** associated with each project.

The inflow assessments presented in this annex demonstrate that CWSSIP investments are not only socially and environmentally necessary but also offer **realistic pathways for financial sustainability and impact-based return**—critical to attracting concessional financing, blended investments, and county budget prioritization.

I. Summary of Inflow Types Covered

- **Direct financial inflows**: From household tariffs, kiosk user fees, FSM desludging charges, and sewerage service revenue—mostly applicable to KEWASCO-managed schemes, kiosks, and treatment infrastructure.
- **Indirect financial savings**: Achieved through reductions in Non-Revenue Water (NRW), diesel energy replacement with solar (OPEX savings), or reduced emergency health expenditures.
- **Social and health-related value returns**: From improved hygiene in schools and HCFs, enhanced menstrual hygiene, catchment protection, and time savings for women and youth in water-stressed areas.
- **Livelihood and local enterprise generation**: Through community-led O&M, youth-based fabrication of hygiene facilities, and WRUA-contracted land rehabilitation efforts.

II. Investment-Linked Returns by Batch

- **Batch 1** (investment-ready, short-term projects) offers immediate **cost-recovery and service expansion gains**, including an expanded KEWASCO billing base, new vendor-managed water points, and affordable sanitation services in schools and rural markets.
- **Batch 2** (long-term strategic projects) targets **high-impact, capital-intensive systems** such as the Londiani Mega Water Project and regional sewerage schemes, with inflows derived from increased bulk supply, user fees, improved cost-efficiency, and avoided environmental/public health costs.

III. Programmatic Implications

These inflow projections are crucial for:

- **Informing safeguards categorization** based on economic footprint;
- **Building investor confidence** by showing pathways to cost-recovery;
- **Phasing investment implementation** based on risk and return;
- **Advocating for co-financing** between the county government, KEWASCO, WRUAs, PPPs, and donor partners.

By aligning infrastructure investments with measurable value returns, Kericho's CWSSIP now presents a bankable, socially inclusive, and climate-resilient roadmap for universal WASH access.

These inflows provide clarity on **return on investment (ROI)** and can guide **safeguards categorization, financing structuring**, and **phased project implementation**.

Table 0.4: Summary of Projected Inflows and Value Returns by Investment Type

Project / Investment Category	Estimated Cost (KES M)	Projected Inflow / Value Return	Inflow Type	Primary Beneficiaries / Source
KEWASCO Network Expansion & Metering	1,480.0	Revenue from new connections, increased billing	Direct financial	KEWASCO, domestic consumers
NRW Reduction Program	150.0	Savings from reduced water loss, improved utility efficiency	Indirect financial	KEWASCO, county government
Water Kiosks (30 sites in low-income zones)	45.0	Vendor fees, daily water sales (KES 10–20 per 20L container)	Direct financial	Households in informal settlements
Londiani FSM Treatment Facility	120.0	Desludging fees (KES 300–1,000 per trip) from HHs & institutions	Direct financial	Urban & peri-urban HHs, schools, markets
Mobile Desludging Units (3 units)	69.0	Service fee-based recovery, pay-per-use model	Direct financial	Households, KEWASCO, local WASH entrepreneurs
Institutional WASH (60 schools, 60 HCFs)	790.0	Health and education benefits: reduced absenteeism, disease burden	Indirect social	MoH, MoE, school-age children, patients
Rainwater Harvesting (70 tanks in ECDEs/HCFs)	49.0	Resilience value: reduced dependence on piped water	Indirect budget relief	Schools, health facilities
MHM Centers & Hygiene Stations	34.5	Social value: dignity, school retention for adolescent girls	Indirect social	Girls, female caregivers, teachers
County Water Quality Testing Labs (3 regional)	300.0	Safer water supply = fewer waterborne disease outbreaks	Indirect health savings	Public health system, KEWASCO, WRUAs

Table 0.5: Annex 4 – Batch 1: Water Supply Projects – Projected Inflows and Value Returns

Project Name	Cost (KES M)	Projected Inflow / Value Return	Inflow Type	Beneficiaries / Source
Kipkelion Rural Piped Scheme	357.3	Revenue from new household connections and bulk supply to institutions; reduced water cart dependency	Direct financial	22,066 households, local institutions
Chepkositonik Gravity Scheme Rehab	88.2	Savings through improved reliability; reduction in untreated water use; higher revenue from resumed meter billing	Indirect financial	Households, KEWASCO
Kusumek Rural Expansion	138.9	New revenue via household piped supply, small-scale livestock and irrigation use (MUS model)	Direct + indirect	Rural households and smallholder farmers
Cheboin Water Supply	72.8	Increased domestic billing base; reduced cost of water vending (KES 10–15 per 20L container → piped at ~KES 50/m³)	Direct financial	3,200+ HHs, KEWASCO
Borehole Solarization (40 sites)	88.0	Operational cost savings (diesel-to-solar transition); stabilized revenue from consistent supply	Indirect financial	CBO-run schemes, rural users
Spring Protection Program (60 sites)	30.0	Health cost savings (reduced contamination); improved water access time for ~15,000 residents	Indirect social	Women, children, low-income households
Pipeline Extensions – Ainamoi	180.0	Additional metered households added to KEWASCO billing; reduction of informal vendor sales (KES 15–20/20L)	Direct financial	KEWASCO, peri-urban households
WASH in Markets (20 sites)	85.0	Vendor sanitation fees (KES 5–10/use); improved market hygiene = reduced disease outbreaks (budgetary savings)	Mixed – revenue + health	Traders, county public health
Water Kiosks for Low-Income Areas (30)	45.0	Vendor-managed water sales at affordable flat rate (KES 2–5 per 20L) = steady community revenue stream	Direct financial	Informal settlements, CBO operators

Mobile Desludging Unit – Kipkelion (1 No.)	27.0	Desludging fee (KES 500–1,000 per household or school); supports FSM cost recovery model	Direct financial	Households, schools, KEWASCO sanitation team
Sanitation Blocks in 15 ECDEs	33.0	Improved school attendance (especially for girls); reduced open defecation; indirect education and health savings	Indirect social	School-age children, MoE, caregivers
School WASH Upgrades (10/year × 6)	395.4	Disease reduction; time saved fetching water; higher class retention = long-term education benefit	Indirect social	30,000+ students, teachers
HCF WASH Upgrades (10/year × 6)	395.8	Infection prevention = lower maternal and patient mortality; fewer water-borne outbreaks; cost savings for MoH	Indirect health saving	Patients, staff, Ministry of Health
SCADA Expansion – KEWASCO Phase II	58.0	Efficiency gain from real-time monitoring = faster leak response, reduced NRW, billing accuracy	Indirect financial	KEWASCO, 30,000+ customers
Hand Hygiene Facilities – 15 Markets	16.5	Vendor compliance-based user fees (KES 2–5); improved public hygiene = reduced diarrheal outbreaks	Mixed – revenue + health	Traders, county public health
FSM Vehicles (2) – Londiani	42.0	Desludging service expansion to new towns; fee-based FSM model (KES 500–1,000/HH)	Direct financial	Households, KEWASCO sanitation division
Stormwater Drainage – Belgut Market	37.0	Reduced market flooding = less revenue loss for traders; improved operating days/year	Indirect economic saving	Traders, county market operations
MHM Centers – 4 Pilots	18.0	Improved menstrual hygiene access; reduced school dropout among girls; dignity and inclusion	Indirect social	Adolescent girls, schools, CHVs
Gender & Disability WASH Audits (4 wards)	12.5	Targeted WASH design adaptations; improved access for PWDs = equity benefit; informs future investment allocation	Indirect social equity	PWDs, women-led households
Rainwater Harvesting Tanks (70)	49.0	Reduced piped water demand = operational savings; water security for institutions during drought	Indirect resilience	Schools, health centers
Solarization – 10 Additional Boreholes	26.5	Elimination of diesel cost (KES 15–20k/month/unit); stable water flow = improved billing or functionality	Indirect financial	CBOs, KEWASCO satellite schemes
County WSP Safety Planning Toolkit Rollout	13.0	Early detection and correction of water quality threats = public health savings	Indirect risk mitigation	KEWASCO, Dept. of Health
Ward-Level WASH Investment Committees (25)	11.0	Enhanced local oversight = reduced misallocations, improved transparency in resource use	Indirect governance gain	All wards, CEC Water, MCAs
Youth-Led Fabrication of Handwashing Units	9.5	Livelihoods for youth-led enterprises; sales to schools, clinics, and public buildings	Direct income generation	Youth groups, CBOs
GIS Mapping of WASH Assets & Expansion Zones	14.0	Improved investment planning; reduced duplication = long-term budget efficiency	Indirect planning gain	County planners, donors
Catchment Management Support (8 WRUAs)	38.0	Long-term water source protection; reduced sedimentation and spring failure = sustainability of water systems	Indirect conservation	Upstream WRUAs, WRA, downstream communities

Table 0.6: Annex 4 – Batch 2 (Part 1): Projected Inflows and Value Returns – Strategic Water Projects

Project Name	Cost (KES M)	Projected Inflow / Value Return	Inflow Type	Beneficiaries / Source
Londiani Mega Water Supply Project **(bulk + storage + distribution)**	2,200.0	High-volume supply to urban centers; increased KEWASCO billing from 20,000+ new connections; improved bulk sales	Direct financial	KEWASCO, Londiani, Kipkelion towns

Bosto Dam Link and Regional Water Transfer	1,900.0	Cross-county water transfer revenue; increased agricultural reliability; cost-sharing model potential	Direct + indirect	Nakuru-Kericho interface; irrigation users
Kericho–Kipkelion Regional Sewerage System	1,400.0	Sewerage user tariffs (KES 100–300/month); reduced environmental penalties; potential reuse for irrigation	Direct + resilience	Urban residents, KEWASCO
County FSM Fleet & Maintenance Yard (10 units)	390.0	Expanded county desludging services = fee-based recovery (KES 500–1,000/trip); institutional cost recovery	Direct financial	Households, institutions, KEWASCO sanitation division
Green Infrastructure for Flood Control	600.0	Reduced damage to markets, roads, and supply lines = major avoided losses; improved recharge zones	Indirect economic saving	Belgut, Ainamoi, downstream wards
SCADA + Utility Monitoring Expansion	400.0	Real-time system monitoring = reduced NRW losses, increased billing accuracy and pressure optimization	Indirect financial	KEWASCO, 100,000+ customers

Table 0.7: Annex 4 – Batch 2 (Part 2): Projected Inflows and Value Returns – Strategic Sanitation & Resilience Projects

Project Name	Cost (KES M)	Projected Inflow / Value Return	Inflow Type	Beneficiaries / Source
Londiani Wastewater Treatment Plant (790 m^3/day)	796.0	Revenue from sewerage billing; reduction in open discharge = improved health & compliance savings	Direct + indirect	Households, businesses, KEWASCO
Decentralized Sewerage – Litein Town	112.0	Localized sewer fee collection; improved sanitation = fewer disease outbreaks	Direct + public health	Litein residents, public health system
Sludge Drying Beds + Storage – Londiani	64.0	Reduced FSM disposal costs; enables value-chain (e.g., reuse in agriculture if regulated)	Indirect + potential revenue	KEWASCO, agricultural users
Mobile Desludging Units – Rural Towns (2 Units)	42.0	Continued FSM service expansion = pay-per-trip fees (KES 500–1,000); prevents illegal dumping	Direct financial	Rural households, KEWASCO sanitation wing
Climate-Resilient Reservoirs (2 Lowland Zones)	450.0	Increased seasonal water security = year-round piped supply; productive use in livestock/irrigation	Indirect resilience + MUS	Farmers, WRUAs, rural households
Rural–Urban Water Link Infrastructure **(tankers, kiosks)**	300.0	Mobile bulk sales + urban water kiosks = revenue generation (KES 10–30 per container equivalent)	Direct + backup supply fee	Informal settlements, peri-urban areas

Table 0.8: Annex 4 – Batch 2 (Part 3): Projected Inflows and Value Returns – Institutional, Planning, and Support Investments

Project Name	Cost (KES M)	Projected Inflow / Value Return	Inflow Type	Beneficiaries / Source
Water Quality Testing Labs (North, Central, South)	300.0	Reduced disease outbreaks via improved water surveillance; faster response to contamination	Indirect public health	KEWASCO, Dept. of Health, consumers
Review of County Sewer Master Plan	17.0	Better investment targeting; reduced overlaps = long-term planning savings	Indirect planning efficiency	County Water Dept., partners
WASH M&E Digitization Platform	19.0	Improved decision-making; avoids duplication of projects; early risk alerts	Indirect governance gain	County Planning, WASH Hub
Gender & Disability-Inclusive WASH Audits (4 wards)	12.5	Tailored design = higher functionality rates; improved service equity = better usage, reduced retrofits	Indirect social return	PWDs, vulnerable groups, project implementers
MHM Promotion (Countywide)	50.0	Improved attendance and dignity for adolescent girls; long-term educational and public health return	Indirect social	Girls in schools, caregivers
Youth-Led Fabrication of Handwashing Units	9.5	Local economic benefit via production and supply to institutions and markets	Direct livelihood income	Youth groups, public facilities
Catchment Management Support Program (8 WRUAs)	38.0	Long-term water source protection = sustained flows and quality for downstream schemes	Indirect resource sustainability	WRUAs, rural communities, water utilities

Appendix 5: Monitoring, Evaluation, and Communication Tools

This annex presents a suite of tools that will be utilized to track CWSSIP implementation, measure outcomes, and inform stakeholders, and support communication and feedback loops. These tools are categorized under monitoring and evaluation (M&E) systems and communication platforms for stakeholder engagement.

A. Monitoring and Evaluation Tools

Tool Name	Purpose / Description	Frequency	Responsible Entity
CWSSIP Results Framework Matrix	Logical framework linking outputs, outcomes, indicators, and targets per strategic pillar	At plan inception	Dept. of Water / Planning Unit
WASH Management Information System (MIS)	Real-time digital reporting tool for infrastructure status, coverage, and performance	Continuous (monthly/quarterly)	Dept. of Water / ICT Unit
Baseline Survey Toolkit	Household, institutional, and WRUA-level survey templates aligned with SDG 6 indicators	Once – 2025	Planning Unit / M&E Consultants
Mid-term & End-term Evaluation Templates	Standardized evaluation structure for tracking progress and outcomes	2027 (mid-term), 2030 (final)	County Planning Unit / Development Partners
WASH Infrastructure Mapping Tool (GIS)	Geo-referenced asset tracker for schemes, boreholes, toilets, and sanitation plants	Quarterly updates	Dept. of Water / WRUAs / KEWASCO
Service Performance Dashboard	Digital visualization of KPIs at the county and sub-county level	Quarterly	CWSSIP Secretariat / WSPs
Scheme Compliance Inspection Checklist	Tool for WASH Inspectorate to track scheme operations, safety, and tariff compliance	Bi-annually	WASH Inspectorate Unit
Beneficiary Feedback Tracker	Community reporting template on satisfaction, access, and grievances	Continuous	WSPs / Sub-county WASH Officers
Annual Sector Performance Scorecard	Comparative analysis of WASH delivery by area and theme	Annually	Dept. of Water / County Executive

B. Communication and Engagement Tools

Table 0.9: Communication and Engagement Tools

Tool / Channel	Purpose / Audience	Frequency	Lead Agency
CWSSIP Summary Booklet (A5)	Public awareness and political engagement (English, Kiswahili, Kipsigis)	Once (Q1 2025), updated 2027	Dept. of Water / County Communication Unit
WASH Baraza Toolkit	Community forum facilitation guide for dialogue and feedback	Biannually per ward	Sub-County WASH Coordinators
Social Media Content Plan	Public updates on progress, milestones, and education campaigns	Weekly	County Communication Unit
CWSSIP Launch Kit (poster, flyers, press release)	Mobilization of the community and stakeholders during CWSSIP rollout	Once (Q2 2025)	County Executive / Water Dept
Media Briefing Pack	Key messages and talking points for journalists and radio hosts	Bi-annually	Dept. of Water / Communication Desk
School and Health Facility WASH Toolkit	Hygiene behavior change and menstrual health training tools for institutions	Annually	Dept. of Health / Dept. of Education
Sanitation Marketing Toolkit (for SMEs)	Guide for entrepreneurs promoting improved toilets, FSM services, and hygiene products	Rolling	WASH Unit / NGOs / Youth Enterprise Office
WASH Feedback and Grievance Redress Platform (GRM)	An online and SMS system for citizens to submit and track complaints	Continuous	WASH Inspectorate / ICT Unit
CWSSIP Digital Newsletter / E-Bulletin	Share CWSSIP news, innovation cases, and learning with stakeholders	Quarterly	CWSSIP Secretariat

Appendix 6: NAWASIP Proposed Projects

Table 0.10: NAWASIP Proposed Projects

S/No.	Project Name	Description / Location	Implementing Agency / Lead	Type (Urban/Rural)	No. of Households Targeted	Estimated Capex (KES)
425	Kusumek Water Supply Project	River intakes	KEWASCO	U/R	5,060	694,000,000
426	Drilling and equipping of 30 Boreholes across the county	Boreholes/Point Sources	Community/Institutions	R	2,116	600,000,000
427	Kabianga Water and Sewerage Project	Distribution network expansion	County	R	5,021	450,000,000
428	Cheptuiyet Water Supply	River intakes	County	R	2,506	400,000,000
429	Rehabilitation and Construction of Kipkobob Water Supply	River intakes	County	R	5,015	357,286,969
430	Drilling and Equipping 14 Boreholes in Soin/Sogowet Subcounty	Boreholes/Point Sources	Community/Institutions	R	750	327,000,000
431	Water Sector Development Program (WSDP-LVS) – Expansion for Kericho Town	River intakes	KEWASCO	U	7,013	1,300,000,000
432	Rehabilitation and Construction of Kimologit Water Project	River intakes	County	R	1,261	211,289,132
433	Soliat Water Supply Project	River intakes	County	R	1,836	153,000,000
434	Procurement and Installation of 1000 Plastic Water Tanks for Schools and Health Facilities	Last mile connection	Schools/Health Centres	U/R	1,000	130,000,000
435	Rehabilitation of Existing Pipe Network (Kericho CBD)	Distribution network expansion	County	U	20	127,112,233
436	Rehabilitation and Expansion of Water Supply Projects in Kedowa/Kimugul Ward	Last mile connection	County	R	3,678	120,000,000
437	Construction of Chebululu (Soin) Water Supply	River intakes	County	R	1,261	120,000,000
438	Rehabilitation and Construction of Kapkures Water Supply Project	River intakes	County	R	353	117,417,116
439	Rehabilitation and Expansion of Water	Spring sources	Community	R	2,937	100,500,000

	Supply Projects in Chilchila Ward					
440	Water Supply Project to Kutung, Kebenet, Mtaragon, and Lelu (Kamasian Ward)	River intakes	County	R	911	100,000,000
441	Construction of Water Supply Projects in Kipkelion East	River intakes	County	R	2,170	87,600,000
442	Rehabilitation and Construction of Sasur Water Supply Project	River intakes	Community	R	1,805	85,000,000
443	Construction of Water Supply Projects in Kipkelion West Subcounty	Spring sources	Community	R	1,223	82,000,000
444	Cherire Water Supply Project	Spring sources	County	R	2,030	80,000,000
445	Kipkok Water Supply Project	Spring sources	County	R	2,030	80,000,000
446	Rehabilitation and Construction of Kiptere Water Supply Project	River intakes	County	R	1,259	80,000,000

Appendix 7: Stakeholder Representation – CWSSIP Stakeholders Engagement Workshop

Date: 25th April 2025

Venue: ACK Guest House, Kericho

Purpose: Validation and enrichment of the Draft Countywide Water and Sanitation Strategy & Investment Plan (CWSSIP)

The workshop brought together a wide range of stakeholders representing institutions and interests critical to the successful design, coordination, implementation, and monitoring of the CWSSIP. Representation was as follows:

1. **County Government of Kericho – Water, Sanitation, Environment & Climate Change Cluster**

- County Executive Committee Member (CECM) for Water, Environment, Energy and Natural Resources
- Chief Officer and Directors from the Department of Water and Sanitation
- Sub-County Water Officers from all six sub-counties
- County Director and Officers from the Department of Environment and Climate Change
- K-WASH County Coordinator

Purpose: Provided technical leadership, current infrastructure data, sub-county WASH challenges, and institutional coordination insights across rural and urban settings.

2. **County Government of Kericho – Public Health Cluster**

- CECM and Chief Officer for Health
- County Director of Health Services
- County Public Health Officers (CPHOs) and Health Records Information Officers
- Community Strategy and Hygiene Promotion Focal Persons

Purpose: Shared insights on hygiene gaps, MHM and infection control in HCFs, solid waste management, sanitation financing, and WASH service quality across health facilities.

3. **County Government of Kericho – Economic Planning and Finance Cluster**

- CECM for Finance and Economic Planning
- Chief Officers for Finance and Planning
- Directors and Officers from Budget, Resource Mobilization, and Economic Planning Units

Purpose: Anchored CWSSIP in CIDP priorities, validated investment costing logic, aligned fiscal space and county PBB structures with proposed financing strategy.

4. **County Government of Kericho – Education, Markets & Trade Clusters**

- CECMs and Chief Officers for Education and Trade
- Assistant Director of Education

- Director of Trade and Markets

Purpose: Provided situational analysis on WASH in public ECDEs, market centers, and informal settlements; supported the hygiene promotion and institutional WASH chapters.

5. National Government Stakeholders

- County Director of Education (MoE)
- Principal Education Officer and CPIU member (MoE)
- Water Resources Authority (WRA) – Sub-Basin Coordinator and Water Quality Officers
- National Environment Management Authority (NEMA) – County Director of Environment

Purpose: Shared national benchmarks, enforcement mechanisms, school WASH integration, pollution control strategies, and river basin management frameworks.

6. Water Service Provider (WSP) – KEWASCO

- Managing Director and Technical Team
- CPIU representatives and Rural Cost Centre Management

Purpose: Validated service coverage and infrastructure plans, financial performance indicators, climate adaptation strategies, and contributed to implementation planning.

7. Civil Society and Development Partners

- SNV (Netherlands Development Organization)
- Brighter Communities Worldwide
- Brown Plantation Kenya (Private Sector WASH CSR Partner)

Purpose: Represented NGO and private sector actors supporting rural sanitation, MHM programs, WASH innovations, and school/health facility upgrades.

8. Local Development Committees and Economic Interest Groups

- Chairpersons of NG-CDF Committees from all sub-counties
- Kericho Chamber of Commerce – County Chairman

Purpose: Voiced community priorities for water and sanitation investment, supported alignment with NG-CDF projects, and affirmed market-based WASH opportunities.

9. Regional Water Works Development Agency

- Lake Victoria South Water Works Development Agency (LVSWWDA) – Senior Technical Officers

Purpose: Provided insights into ongoing and planned regional bulk infrastructure, cross-county project linkages, and strategic WASH investments co-financed by the national government.