Ministry of Health

REPUBLIC OF KENYA

COSTED KENYA RURAL SANITATION AND HYGIENE ROADMAP 2023-2030



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COSTED KENYA RURAL SANITATION AND HYGIENE ROADMAP 2023-2030

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Abbreviations and Acronyms

ASAL	Arid and Semi-Arid Lands
CBO	Community-Based Organisation
CG	County government
CHA	Community Health Assistant
CHEW	Community Health Extension Worker
CHV	Community Health Volunteer
CLTS	Community-Led Total Sanitation
DHIS	District Health Information System
FSTP	Faecal Sludge Treatment Plant
G1	Grade 1 Open Defecation Free environment
G2	Grade 2 Safe & Sustainable environment
G3	Grade 3 Clean & Healthy environment
JMP	Joint Monitoring Programme for Water Supply, Sanitation and Hygiene
KESHP	Kenya Environmental Sanitation and Hygiene Policy
MAS	Make A Splash!
MOH	Ministry of Health
MoWSI	Ministry of Water, Sanitation and Irrigation
NGO	Non-Governmental Organisation
ODF	Open Defecation Free
PHO	Public Health Officer
RT-MIS	Real Time Monitoring Information System
SDG	Sustainable Development Goal
STH	Soil-Transmitted Helminths
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Foreword

Access to proper sanitation and hygiene practices is not just a fundamental human right, but also a critical driver of societal development and individual well-being. This roadmap reflects the Ministry of Health's commitment to addressing the challenges we face in the water, sanitation, and hygiene (WASH) sector, and sets forth a comprehensive strategy to improve the lives of Kenyans through enhanced sanitation and hand hygiene practices.

Kenya, like many other countries, has made remarkable progress in various aspects of its development agenda. However, the fact that a significant portion of our population still lacks access to safe and hygienic sanitation facilities, leading to dire consequences for public health, environmental sustainability, and socio-economic development cannot be overlooked. Open defecation, inadequate sanitation infrastructure, and insufficient handwashing facilities contribute to the prevalence of waterborne diseases, the spread of infections, and economic losses. We must address these challenges head-on, and this roadmap provides a clear path forward.

The development of this roadmap has been a collaborative effort involving government institutions, development partners, civil society organizations, and research institutions. It represents the culmination of extensive research, consultations, and the sharing of best practices from various stakeholders. By pooling our collective knowledge, experience, and expertise, we have crafted a roadmap that is both realistic and ambitious, capable of driving tangible change in the lives of our citizens.

This roadmap not only aligns with Kenya's long-term development plan, Kenya Vision 2030 but also with our commitment to the Sustainable Development Goals (SDGs). By focusing on SDG 6.2 on sanitation, we directly contribute to multiple goals, including health (SDG 3), gender equity (SDG 5), and sustainable communities (SDG 11), among others. Through its comprehensive approach, this roadmap addresses not only the need for improved sanitation infrastructure but also the critical importance of behaviour change, stakeholder engagement, financial sustainability, and inclusivity.

One of the key strengths of this roadmap lies in its emphasis on partnerships and collaboration. It recognizes the invaluable role of the private sector, civil society organizations, and local communities in driving change and achieving sustainable outcomes. By promoting public-private partnerships, innovative financing mechanisms, and community involvement, we can ensure that our efforts are truly transformative and that the benefits reach every Kenyan, regardless of their background or geographic location.

In conclusion, this roadmap represents a comprehensive strategy to address Kenya's sanitation and hand hygiene challenges. By implementing the recommended actions, the government aims to uplift rural residents from open defecation environments, improve hand hygiene practices, and establish resilient and sustainable sanitation services throughout the country.



Dr. Patrick Amoth, EBS
Ag. DIRECTOR GENERAL FOR HEALTH

Rationale

The government of Kenya recognizes the critical importance of sanitation and hand hygiene as key development priorities. These elements are integral to the country's long-term development plan, Kenya Vision 2030, as well as its commitment to achieving the Sustainable Development Goals (SDGs). SDG 6.2 on sanitation directly contributes to SDG 3 on health, SDG 5 on gender equity, SDG 11 on sustainable communities, and other related goals.

Despite significant progress in the adoption of appropriate sanitation and hand hygiene practices among communities, Kenya still faces substantial challenges. Open defecation remains a prevalent practice, particularly in rural areas, where a significant proportion of the population relies on unimproved sanitation services. Insufficient access to handwashing facilities further compounds these challenges. Diseases related to poor sanitation and hygiene continue to hinder Kenya's socio-economic development, with the country experiencing a high burden of diarrhoeal and respiratory tract infections.

This roadmap addresses the urgent need to improve sanitation and hygiene conditions in Kenya. It aims to break the transmission routes of pathogens while providing safety, dignity, and economic opportunities to Kenyans. The economic losses resulting from poor sanitation are estimated to be substantial, highlighting the potential economic benefits of addressing this challenge. The roadmap acknowledges the importance of enabling and influencing the development of sanitation markets, particularly by building the capacity of the private sector to provide sustainable and hygienic sanitation facilities and services.

The roadmap also recognizes the need for tailored solutions for remote and sparsely populated areas, where market-based approaches may not be suitable. It emphasizes the inclusion of populations that may face affordability challenges in accessing sanitation services. The roadmap builds upon the experience and knowledge gained by sector practitioners in addressing sanitation and hand hygiene. Successful approaches such as Community-led Total Sanitation (CLTS), sanitation marketing techniques, and financial services for sanitation investments have informed the roadmap's recommendations.

The roadmap provides a common framework for sector actors, outlining objectives, recommended implementation approaches, and a joint results framework for accountability. It underscores the importance of financial resources to achieve sanitation and hand hygiene objectives, providing cost estimates for various activities. By setting these costs, the roadmap facilitates the formulation of appropriate funding and financing strategies.

The scope of this roadmap focuses on rural sanitation and hand hygiene, including homes, schools, and healthcare facilities. Attention is given to areas with high levels of open defecation and water scarcity. Hand hygiene receives special attention due to its significant impact on disease prevention, including the current COVID-19 pandemic. The roadmap acknowledges the need for communities to progress along the sanitation ladder while emphasizing the importance of robust and sustainable sanitation services, considering climate change impacts and the treatment of faecal sludge.

The successful implementation of this roadmap will contribute to improved public health, enhanced socio-economic development, and the attainment of national and global development goals.



Dr. Maureen Kamene
Ag. HEAD, DIRECTORATE OF PUBLIC HEALTH

Acknowledgement

The Ministry of Health in Kenya expresses its gratitude for the collaborative efforts that have been invested in the development of the Costed National Sanitation and Hygiene Roadmap. This initiative has brought together the expertise, dedication, and contributions of numerous individuals and organizations. The Ministry extends its appreciation to all those who have contributed to shaping a comprehensive roadmap aimed at addressing the sanitation and hygiene challenges in the country.

Special recognition is given to Adam Mohammed, Janet Mule, Ibrahim Basweti, Doyle Leonard, and Emmah Mwende from the WASH Division of the Ministry of Health for their leadership in this endeavour. The Ministry is thankful to UNICEF-Kenya, particularly Julie Aubriot, Hodaka Kosugi and Jimmy Eric Kariuki, for their financial and technical support throughout the process. Furthermore, the Ministry would like to express its appreciation to the Ministry of Water, Sanitation, and Irrigation, represented by Eng. Kimanthi Kyengo and Kennedy Musumba, for their collaboration and support.

The Ministry acknowledges the invaluable assistance provided by Government agencies, development partners, international organizations, numerous civil society organizations, research institutions, and community-based organizations that actively participated in consultations and provided valuable inputs into the roadmaps including USAID, World Bank, WASH Alliance, Water Sector Trust Fund, Water Services Regulatory Board, KEWASNET, Kenya Water for Health Organization, FINISH INK, AMREF and SNV (see Annex 3). We would like to extend a special thank you to the Public Health teams from the following counties: Kisumu, Kitui, Nakuru, Turkana, Kilifi, Nyeri and Garissa. We would finally like to extend a special thank you to the consultants that developed the roadmap led by Goufrane Mansour, Elise Jabagi, Martha Keega and Sue Cavill. The insights and feedback provided by these teams have played a crucial role in shaping the priorities and actions outlined in the roadmap. With determination and a shared vision, challenges in our sanitation and hygiene landscape can be overcome and create a future where every Kenyan has access to safe and dignified sanitation facilities and practices. This roadmap will guide us on this journey, laying the foundation for a healthier, more prosperous, and sustainable Kenya.



Anthony Wainaina
HEAD, DIVISION OF ENVIRONMENTAL HEALTH

Preface

The National Costed Rural Sanitation and Hygiene Roadmap Towards 2030 is a document prepared by the government of Kenya to guide the implementation of sanitation policies in the country. This roadmap sets objectives, activities, roles and responsibilities for the sector, as well as estimates the costs of achieving these objectives.

The rationale behind the roadmap stems from the importance placed by the government on sanitation and hand hygiene as a development priority, despite the significant challenges that still exist. Open defecation is practised by 8.5% of the population, primarily in rural areas, and a large proportion of the population relies on unimproved sanitation services. Additionally, a considerable percentage of the population lacks access to handwashing facilities at home.

The roadmap builds upon the experience and knowledge gained by sector practitioners in addressing sanitation and hand hygiene. It aims to provide a common framework for sector actors to enhance coordination and effectiveness in implementing rural sanitation and hand hygiene initiatives.

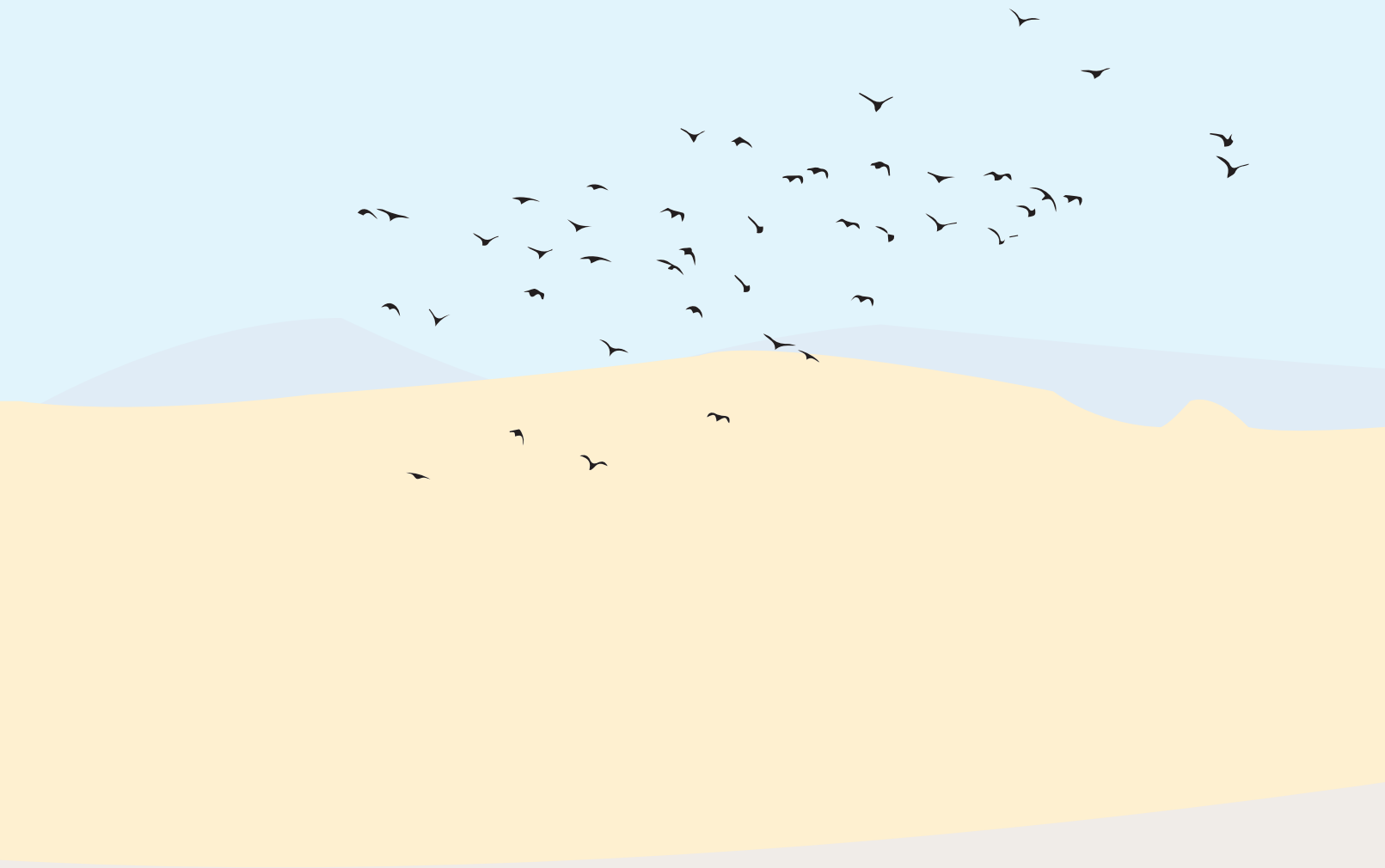
The primary focus of the roadmap is on sanitation and hand hygiene in rural areas, encompassing homes, schools, and healthcare facilities. It emphasizes the need to end open defecation while simultaneously developing higher levels of sanitation services in all communities. Special attention is given to hand hygiene to increase its visibility and prioritization.

The roadmap adheres to key principles aligned with Kenya's Constitution, sanitation policies, and related health policies. It includes service levels defined in the Rural Sanitation Protocol and recognizes the importance of behaviour change strategies, including Community-led Total Sanitation (CLTS) and sanitation marketing. It also acknowledges that non-sewer services are likely to be the most appropriate sanitation solutions in rural areas and small towns in the medium term. The roadmap emphasizes local ownership, government funding, and inclusive approaches to leave no one behind.

By implementing this roadmap, Kenya aims to achieve sanitation and hand hygiene objectives, improve access to sanitation services, and promote sustainable behaviour change. The roadmap serves as a roadmap towards a cleaner and healthier future for all Kenyans, ensuring that sanitation and hand hygiene receive the attention and resources they deserve.

Summary

This document is Kenya's National Costed Rural Sanitation and Hygiene Roadmap towards 2030. It has been prepared to guide national and sub-national governments as well as development partners in the implementation of Kenya's sanitation policies. This Roadmap sets objectives to be achieved for the sector by 2030, activities to be implemented as well as roles and responsibilities. The document also provides an estimate of the costs of achieving these objectives.



Why a Roadmap?

The government of Kenya has made sanitation and hand hygiene a development priority, but the country still faces important challenges. Open defecation (OD) is practiced by 8.5% of the population, most of them in rural areas. In addition, a large proportion of the population (33% overall and 40% in rural areas) rely on unimproved sanitation services. An estimated 40% of Kenya's population have no handwashing facility at home.

Recent years have witnessed a growth in the experience and knowledge of sector practitioners in tackling sanitation and hand hygiene. The present Roadmap builds on this experience to provide orientations for change at scale in rural areas. The Roadmap rationale is to provide a common framework for sector actors for a more effective and coordinated action on rural sanitation and hand hygiene.



Scope

The primary focus of this Roadmap is sanitation and hand hygiene in rural settings, including in homes, schools and health care facilities. In this document, "rural" refers to all areas falling outside the jurisdiction of urban Water Service Providers (WSPs). Particular attention is needed in rural settings as OD is concentrated in 15 predominantly rural counties.

Hand hygiene is given special attention in this Roadmap to increase visibility and prioritisation.

Roadmap principles

The contents of this Roadmap are in line with Kenya's Constitution, specific sanitation policies and related health policies. In particular, this Roadmap is formulated using the framework provided by the Rural Sanitation and Hygiene (RuSH) Protocol developed by the Ministry of Health (MoH) and the National Sanitation Management Policy developed by Ministry of Water, Sanitation and Irrigation (MoWSI).

As such, **key principles** of the Roadmap include:

- **Service levels for sanitation as defined in the RuSH Protocol:** they refer to the four Grades of the Protocol (Figure E 1);
- **Focus on both ending OD and higher service levels:** the Roadmap puts emphasis on ending OD, but provides clear orientations for developing higher levels of sanitation services simultaneously in all communities;
- **Adapted strategies for behaviour change:** Community-led Total Sanitation (CLTS) is one main approach for achieving sanitation objectives, but other approaches can be used for specific communities; hand hygiene behaviour change also needs to be context-specific; in addition, sanitation marketing has an important role to play to scale-up the uptake of services, although it may not be the main lever in all contexts;
- **Non-sewered services as the norm in the medium-term:** this Roadmap recognises that non-sewered services are likely to be most appropriate sanitation solutions in the short to medium-term in rural parts of Kenya, as well as in small towns;
- **Local ownership and bottom-up planning:** this Roadmap recognises that long-lasting sanitation and hygiene improvements require leadership and buy-in at national as well as subnational levels; Roadmap objectives will be achieved via the implementation of county-wide sanitation plans;
- **Key role of government in funding sanitation and hand hygiene:** whilst service users are contributors to financing services, there is a critical role for government in funding sanitation, particularly for behaviour change but also to develop infrastructure; in some cases, targeted public subsidies for sanitation can be used as an instrument to increase the uptake of sanitation; and
- **Inclusion and leaving no one behind:** key activities to be implemented to achieve sanitation and hand hygiene for all need to be inclusive throughout: from the planning of activities to their implementation.

Figure E 1: Grades under the National Rural Sanitation and Hygiene Protocol

Grade	Indicators
G3: CLEAN & HEALTHY	• G3-1 Use of safely managed household sanitation services • G3-2 Permanent handwashing services • G3-3 Safe waste management • G3-4 Good personal hygiene • G3-5 Good nutrition • G3-6 Safely managed institutional sanitation services
G2: SAFE & SUSTAINABLE	• G2-1 Individual use of durable toilets with safe containment • G2-2 Handwashing with soap at critical times • G2-3 Safe food hygiene • G2-4 Safe water management • G2-5 Safe management of animals and animal wastes
G1: OPEN DEFECATION FREE (ODF)	• G1-1 Use of flyproof and clean toilets • G1-2 Presence of handwashing facility with water & soap • G1-3 No exposed human excreta • G1-4 Safe management of child excreta and diapers
GO: OPEN DEFECATION	• Exposed Human and animal excreta • Individuals not using toilets • Lack of handwashing practice

Objective and targets for 2030

Overall objective

This Roadmap sets the objective that by 2030, all of Kenya's rural population is living in an environment free from open defecation, with access to basic hand hygiene facilities, and with some rural communities able to access higher sanitation service levels.

Household sanitation targets for 2030

More specifically, this Roadmap is setting that **100% Kenya's rural population will have access to G1-level sanitation containment** by 2030. Sub-targets are:

- **100%** of the population currently in high OD counties use at least **G1-level sanitation** containment; and
- **100%** of the population currently in medium to low OD use at least **G1-level sanitation** containment by 2027.

The Roadmap also sets targets for improving service levels for those currently living in ODF environments; this means that:

- At least **80% of Kenya's rural population use G2-level sanitation containment by 2030**; and
- At least **10% of Kenya's rural population use G3-level sanitation by 2030**.

The above targets mean that by 2030:

- 3,883,422 people will progress from G0 to G1;
- 24,353,289 people will progress from G1 to G2; and
- 168,583 people will progress from G2 to G3.

Household hand hygiene targets for 2030

The Roadmap sets the target that **100%** of Kenya's rural population will use **basic hand hygiene services by 2030**.

Sanitation and hand hygiene in schools

The Roadmap sets the following targets related to sanitation and hand hygiene in rural health care facilities:

- **100%** of Kenyan rural healthcare facilities have **basic sanitation facilities**; and
- **100%** of Kenyan rural healthcare facilities have **basic hand hygiene facilities**.

The Roadmap identifies six additional outcomes that are critical for achieving the above targets (Figure E 2).

Figure E 2: National rural sanitation and hand hygiene objective and expected outcomes

By **2030**, all of Kenya's rural population is living in an enviroment free from open defecation, with access to basic hand hygiene facilities and with some rural communities able to access higher sanitation service levels.

1. Kenya's rural population has access to G1, G2 or G3 - level sanitation containment
2. Kenya's rural population has access basic hand hygiene facilities
3. All rural schools have basic sanitation and hand hygiene facilities
4. All rural health care facilities have basic sanitation and hand hygiene facilities
5. Improved institutional capacity for planning and implementation
6. Improved demand for sanitation and hand hygiene products and services
7. Improved supply of adequate sanitation and hand hygiene products and services
8. Improved availability of financial services for sanitation investments
9. Resource mobilised for roadmap implementation
10. Improved organisational capacity for monitoring and accountability

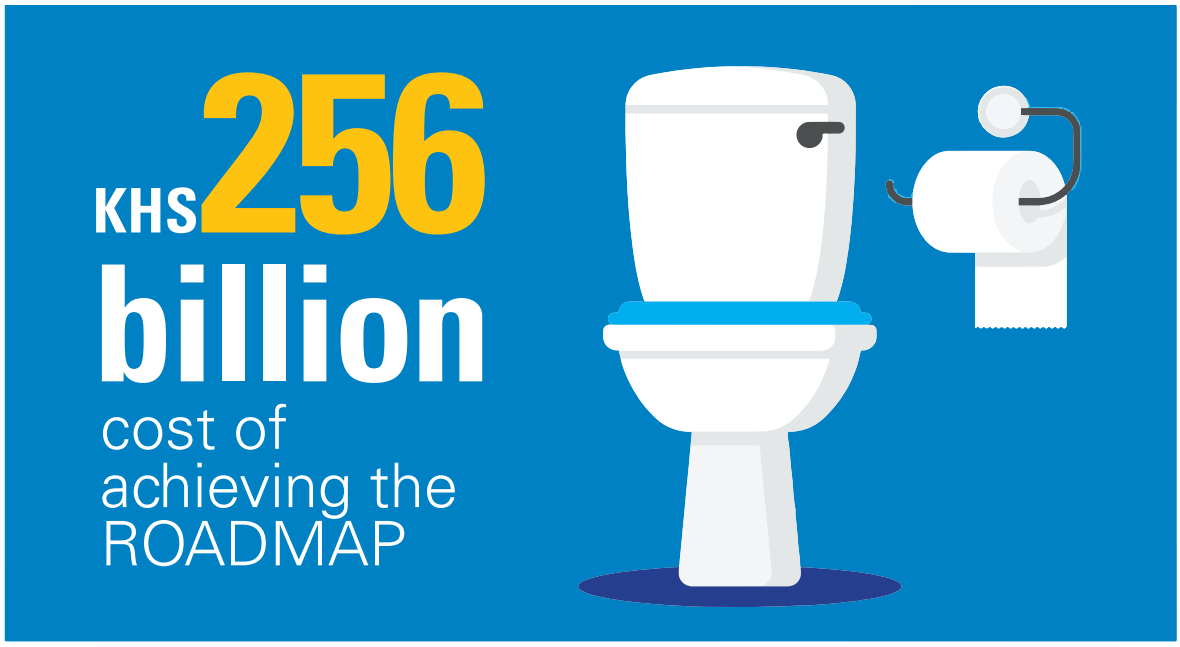
Activities to be implemented

The Roadmap identifies a number of activities to be implemented by national and sub-national governments, with support from development partners, for achieving objectives. The sector will need to:

1. Develop or review of county-wide sanitation and hygiene plans;
2. Develop national guidance related to sanitation and hygiene planning;
3. Build capacity at county-level;
4. Set-up county-level responsibilities and accountability mechanisms;
5. Build and sustain demand for sanitation and hand hygiene;
    a. Kick-off and roll-out a national sanitation campaign
    b. Kick-off and roll-out county-level sanitation and hand hygiene campaigns
    c. Tailor and implement approaches to tackle OD at community level
    d. Work with CHVs and other practitioners trained on demand generation and latrines construction/design
6. Support the supply side of sanitation and hygiene services;
    a. Train local entrepreneurs and provide certifications
    b. Develop training modules on sanitation
7. Engage with financial service providers on the supply of finance for sanitation and hand hygiene;
    a. Organise a national roundtable on finance for sanitation
    b. Detail an action plan to increase the supply of finance for sanitation
8. Mobilise and allocate financial resources;
    a. Develop a national resource mobilisation strategy
    b. Advocate for a sanitation budget code at national and county level
9. Ensure national oversight over progress towards sanitation and hygiene targets;
    a. Steer Roadmap implementation in a coordinated manner
    b. Set-up sector review meetings
    c. Monitoring progress via MIS and periodic reporting
    d. Report on Roadmap implementation.

Responsibilities for Roadmap implementation

At national level, MOH will lead on the implementation and monitoring of the Roadmap, in close coordination with MoWSI and Ministry of Education. At county level, county governments will lead on the design and implementation of county-level sanitation plans. County governments will report to national government on progress achieved. Development partners will play a key role in Roadmap implementation, together with CSOs who bring a wealth of experience.



Costs of Roadmap implementation

The estimated cost of achieving the Roadmap objective and targets is KHS 256 billion or US$ 2.23 billion over 2022-2030. Specific costs are as follows:

- The cost of achieving G1-level containment (eradicating open defecation, with the construction of 388,342 new flyproof and clean shared toilets) will be KHS 6.93 billion (US$ 60.60 million), including KHS 5.83 billion (US$ 50.99 million) for toilet construction;
- The cost of achieving G2-level containment (with the construction of 4,870,658 new durable individual toilets with safe containment) will be KHS 194.18 billion (US$ 1.69 billion), the bulk of which for toilet construction;
- The cost of achieving G3-level sanitation (safely managed) will be KHS 126 million (US$ 1.1 million), for monitoring and certification only; and
- The cost of achieving basic hand hygiene for all is KHS 54.32 billion (US$ 474.74 million).

These costs take into account capital investments, including demand generation activities, supply side strengthening and infrastructure costs. In addition to capital costs, the figure takes into account institutional support costs related to implementing capacity building and sector strengthening activities. With regards to infrastructure costs, this Roadmap presents the costs of developing containment solutions only, recognising that some small towns or more densily populated rural areas require associated services, i.e. emptying and treatment services, which necessitate capital. A major assumption is that all infrastructure developed in rural areas up to 2030 will be non-sewered technologies. The costs presented in this Roadmap are therefore minimum capital costs of achieving sanitation and hygiene objectives.

The costs of achieving sanitation and basic hand hygiene objectives for schools and healthcare facilities will be identified once a reliable baseline has been determined.

Glossary

Community-led total sanitation (CLTS): CLTS refers to an approach to achieving and sustaining open defecation free (ODF) status. CLTS entails the facilitation of the community's analysis of their sanitation profile, their practices of defecation and the consequences, leading to collective action to become ODF (Kar & Chambers, 2008).

Containment: Containment describes the ways of collecting, storing, and sometimes treating the products generated at the toilet (or user interface). The treatment provided by these technologies is often a function of storage and is usually passive (e.g., requiring no energy input). Products that are 'treated' by these technologies often require subsequent treatment before use and/or disposal (WHO, 2018).

Hygiene: Hygiene refers to the conditions and practices that help maintain health and prevent spread of disease including handwashing, food hygiene, and menstrual hygiene management.

Hand hygiene facility: Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.

Health care facilities: This includes health centres, sub-district hospitals, sub-county or district hospitals and national hospitals.

Hygiene behaviour change activities: Activities focused on triggering changes in hygiene behaviours, through education/didactic methods (such as posters), community-based participatory hygiene approaches including PHAST ('Participatory Hygiene and Sanitation Transformation'), SARAR ('Self-esteem, Associative strengths, Resourcefulness, Action-planning, and Responsibility)' and Child to Child. approaches Other recent approaches to hygiene behaviour change include marketing approaches (strengthening domestic private sector supply of and activating customer demand for hygiene products) and interventions based on psychosocial theory (such as the behaviour centred design approach).

Finance: Financial resources that are from donors or the financial market (e.g. commercial banks) and that need to be repaid in the future.

Funding: Provision of financial resources to meet specific needs.

Non-sewered sanitation: Also referred to as "onsite sanitation", it covers a wide range of sanitation technologies in which excreta and wastewater are collected, stored on the plot where they are generated and treated either in situ or off-site in designated treatment facilities.

Sanitation marketing: The use of marketing techniques to promote the construction and use of sanitation facilities. Sanitation marketing considers the target population as customers. It borrows private sector experience to develop, place and promote an appropriate product: in this case the product is a toilet and excreta disposal system, be it sewerage connection, pit latrine or other mechanism. Critically the facilities must be readily available at an affordable price in the right place.[1]

Sanitation services: refers to the management of excreta from the containment, through to the emptying and transport of excreta for treatment and potential discharge or reuse. It covers all services levels, latrine types, and faecal sludge and wastewater treatment methods.

Sanitation systems: Sanitation technologies for the management of faecal sludge and/or wastewater through the stages of the sanitation service chain.

Hard to reach areas: They include places with technical challenges such as isolated areas, coastal/lake-side areas, arid and semi-arid land (ASAL) counties and informal settlements, refugee camps.

Rural: in this Roadmap, rural refers to all areas that do not fall under Water Service Providers' urban license areas.

Vulnerable and Marginalised Groups (VMG): Vulnerable groups include 1) women and girls; 2) children; 3) refugees; 4) internally displaced persons; 5) stateless persons; 6) national minorities; 7) indigenous peoples 8) migrant workers; 9) disabled persons; 10) elderly persons; 11) HIV positive persons and AIDS victims; and 12) lesbian, gay and transgender people.[2]

1 (Ministry of Health, 2016)

2 Ministry of Labour and Social Protection.

1 Rationale and Scope

1.1 Why a Roadmap for rural sanitation and hand hygiene?

The government of Kenya has made sanitation and hand hygiene a development priority. Sanitation and hand hygiene improvements are integral to the Kenya Vision 2030, the country long-term development plan. Kenya has also committed to achieving the Sustainable Development Goals (SDGs), including the SDG 6.2 on sanitation, a direct contributor to the SDG 3 on health, SDG 5 on gender equity and SDG 11 on sustainable communities, among others.

Although Kenya has made significant progress on the adoption of appropriate sanitation and hand hygiene practice among communities, the country still faces significant challenges. Overall, open defecation (OD) is practiced by 8.5% of the population, most of them in rural areas. In addition, a large proportion of the population (33% overall and 40% in rural areas) relies on unimproved services. This is the case at the household level but also in schools and health care facilities. With regards to hand hygiene services, over 44% of Kenyans living in rural areas do not have any handwashing facility on premises.[3]

Diseases related to poor sanitation and hygiene impede Kenya's socio-economic development. Kenya is among the 15 countries that account for three-quarters of the global mortality burden due to diarrhoea and respiratory tract infections (RTIs) linked to poor sanitation and hand hygiene practice.[4] According to Kenya Demographic Health Survey (KDHS) 2014, 15% of the children under the age of 5 years had diarrhoea and 9% had acute respiratory infections (ARI) within 2 weeks preceding the survey. In Kenya, 15% of child deaths were due to pneumonia in 2018, and it was the second biggest killer of children under-five in 2017.[5]

The Roadmap sets to address this situation, with a focus on sanitation and hygiene interventions that can break pathogens transmission routes, whilst providing Kenyans with greater safety, dignity and economic opportunities. In 2012, the World Bank already estimated that Kenya's economic losses due to poor sanitation amounted to KHS 27 billion every year.[6] Addressing the sanitation challenge in Kenya not only can remedy these losses but can help unlock additional economic opportunities. Part of the solution indeed relies on

3 WHO-UNICEF (2021).

4 (Walker , et al., 2013).

5 https://stoppneumonia.org/wp-content/uploads/2019/11/Kenya-12.11.2019-Web.pdf

6 (WSP, 2012).

enabling and influencing the development of sanitation markets, particularly the building of skills and capacity of the private sector to provide hygienic and sustainable sanitation facilities and associated services. This Roadmap estimates the sanitation market in rural Kenya is estimated at **KHS 204 billion (US$ 1.3 billion) for sanitation containment alone**.

Specific solutions are needed for areas and populations where market-based approaches are not adapted. These are remote and sparsely populated areas (such as in the north and eastern parts of the country), hard to reach with limited economies of scale for the private sector. Sections of the population may also not be able to afford sanitation services. This Roadmap intends to address and provide solutions adapted to these areas and populations.

Recent years have witnessed a growth in the experience and knowledge of sector practitioners in tackling sanitation and hand hygiene. Government institutions, development partners (DPs), Civil Society Organisations (CSOs) and research organisations have successfully implemented approaches to sanitation and hygiene. In particular, Community-led Total Sanitation (CLTS) implementation, sanitation marketing techniques and the introduction of financial services to support sanitation investments have proven effective to generate positive change. These efforts now need to reach scale.

The present Roadmap builds on this experience and body of knowledge to provide orientations for change at scale in rural areas. Setting achievable, yet ambitious, targets, it identifies what activities need to be conducted as well as the role and responsibility of each actor involved. As such, the Roadmap's rationale is to provide a common framework for sector actors for a more effective and coordinated action on rural sanitation and hand hygiene, including objectives to be achieved collectively, recommended implementation approaches suited to the Kenyan policy and socio-economic context and a joint results framework for accountability.

Financial resources are critical for achieving sanitation and hand hygiene objectives. This is why the Roadmap provides the costs of achieving objectives, including the costs of national and county level oversight, those of generating demand and strengthening the supply for sanitation and hand hygiene products and services as well as those related to upgrading or constructing sanitation facilities. By providing these costs, the Roadmap sets the basis for the formulation of an appropriate funding and financing mobilisation strategy.

1.2 Scope of the Roadmap: rural sanitation and hand hygiene

The primary focus of this Roadmap is sanitation and hand hygiene in rural settings, including in homes, schools and health care facilities. In this document, "rural" refers to all areas falling outside the jurisdiction of urban Water Service Providers (WSPs). Particular attention is needed in rural settings as open defecation (OD) is concentrated in 15 predominantly rural counties (out of Kenya's 47). Most counties facing the challenge of OD

are also those located in a predominantly arid region, where water scarcity is a significant factor contributing to the slow progress of sanitation and hygiene initiatives.[7] The Roadmap sets to lift 4.3 million rural residents out of OD environments.

Hand hygiene is given special attention in this Roadmap to increase visibility and prioritisation. Handwashing with soap prevents about 30-47% of child diarrhoea and 23% of respiratory infections.[8] Hand hygiene at key times have also proven critical to interrupt the transmission of COVID-19. Despite its importance, hand hygiene often gets bundled into - and lost within - water and sanitation programmes. The COVID-19 pandemic has raised the priority of hand hygiene for all. This Roadmap provides guidance on how to achieve coverage of hand hygiene at households, schools and health care facilities levels.

Whilst a key target of the Roadmap is the eradication of OD, it recognises the need for rural communities to move up the sanitation ladder in line with government policy. This is particularly the case in rural communities that have integrated adequate sanitation and hand hygiene practices but require healthier, safer and sustainable toilet and hand hygiene facilities. In some communities, toilets need be serviced and faecal sludge safely treated. Climate change, which brings high risk of flooding and intense rains (especially in coastal regions) also calls for increased attention to toilets durability. The Roadmap therefore proposes activities to develop robust sanitation services, starting with containment solutions and makes proposals for improving the remainder of the sanitation value chain up to treatment.

1.3 Roadmap development process

The Roadmap was developed through a consultative process. Consultations involved representatives from government institutions (MOH, MoWSI, WASREB and the Ministry of Education in particular), development partners and NGOs (see Annex 3). The Roadmap was also informed by evidence from semi-structured interviews in selected counties, including Turkana, Kilifi, Kisumu, Kitui, Nakuru and Nyeri. These counties were selected on the basis of two counties for each the following categories: high OD rate, moderate OD rate and low OD rate.

This Roadmap builds on a thorough review of the sanitation and hygiene sub-sector in Kenya. This review, presented in Annex 1, extracts key lessons from selected programmes and projects in order to inform the principles and activities laid out in this Roadmap.

The Roadmap was validated through a collaborative process: each draft was presented via webinars or in-person meetings to gather technical inputs from stakeholders.

7 (USAID, 2021).

8 (Curtis & Caincross, 2003).

1.4 Audience for the Roadmap

The Roadmap's primary audience includes:

- National and county level governments including ministries of health, water and sanitation, education as well as ministries of finance and planning;
- Technical teams and staff working in health, sanitation and hand hygiene; and
- Development partners, including donors, partners, civil society organisations, NGOs, international organizations, United Nations agencies and bodies, philanthropic foundations and academic partners.

1.5 Structure of this Roadmap document

The remainder of this Roadmap document is structured as follows:

- **Section 2** presents data on access to sanitation and hand hygiene in Kenya as of 2022;
- **Section 3** presents the legal and policy background to this Roadmap;
- **Section 4** details the key principles of action to tackle rural sanitation and hygiene in Kenya;
- **Section 5** provides the overall objective for the rural sanitation and hand hygiene sector for 2030 and specific outcomes that need to be targeted;
- **Section 6** details the set of activities to be implemented in order to achieve outcomes and the overall objective for 2030
- **Section 7** lays out responsibilities for Roadmap implementation, oversight and monitoring;
- **Section 8** presents the costs involved in implementing this Roadmap and therefore the financial resources that need to be mobilised;
- **Section 9** provides an overview of risks and mitigation measures; and
- **Section 10** proposes a preliminary operational plan for implementing the Roadmap.

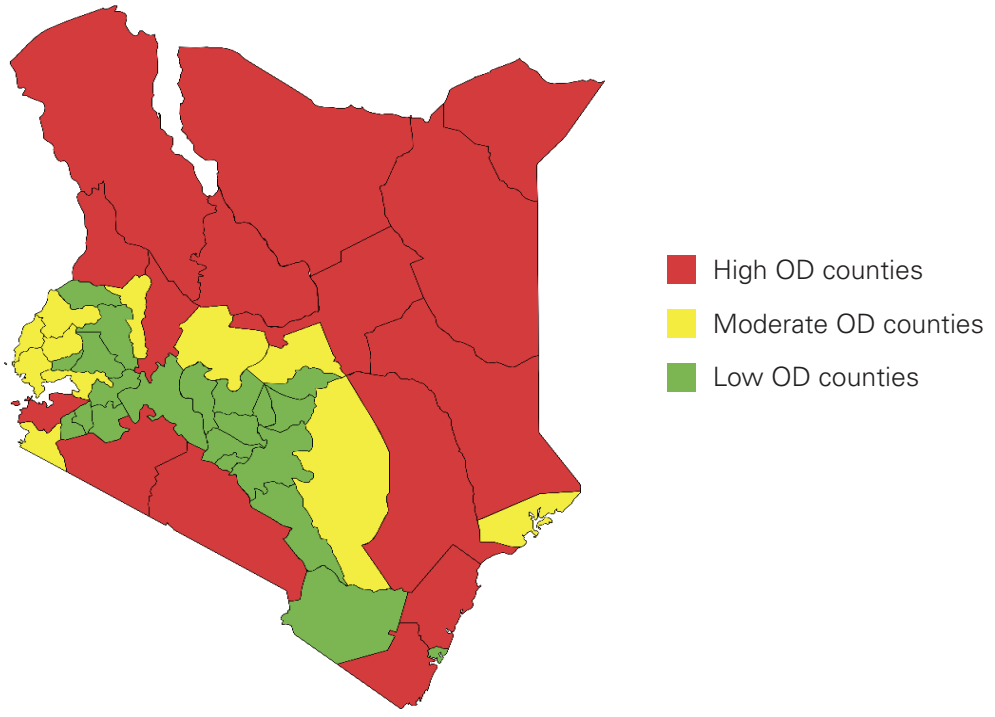
In addition, **Annex 1** presents a review of selected programmes and projects implemented in Kenya in order to extract lessons for this Roadmap. **Annex 2** encloses the Bibliography, **Annex 3** the list of key informants consulted in the process of Roadmap development and **Annex 4** the detailed costing of Roadmap implementation by county.

2 Sanitation and Hand Hygiene Situation in Kenya

2.1 Household sanitation

The country has made progress in improving sanitation services, but as of 2022, an estimated 8.5% of Kenya's population still practiced OD (JMP, 2022). As shown in Figure 1, some counties, predominantly located in the northern arid and semi-arid lands (ASAL), are particularly affected by high OD rates.

Figure 1: Prevalence of OD among households at county level



Source: Authors, based on 2019 census data

In contrast to the ASAL challenges, there are 26 counties that have successfully reduced their OD rate to less than 4%. These low-burden counties have generally better economic conditions, implying that a large proportion of the population aspire to greater sanitation service levels and can afford the purchase of sanitation products and services. The JMP estimates that at least 55% of sanitation facilities in rural areas qualify as unimproved or limited, indicating a scope for improving the quality of sanitation facilities throughout rural areas.

The Ministry of Health (MOH) has identified 15 counties where the OD rate is high (Table 1). These fall under "category 1" counties (see Box 1). Another 11 counties have moderate OD ("category 2", Table 2) and 21 counties have managed to significantly reduce the burden of OD ("category 3", Table 3). Only 1.3% of urban residents practice OD, compared with 11% in rural settings, which account for 72% of Kenya's population.

Table 1: Category 1: High OD burden counties (More than 10%)

County	Density pers/km²	Poverty rate	Climate	OD %	Population
				2019	
Turkana	14	79.4%	Arid	68.1	926,976
Samburu	15	75.8%	Arid	65.6	310,327
Tana River	8	62.2%	Arid	48.6	315,943
Marsabit	6	63.7%	Arid	47.4	459,785
Wajir	14	62.6%	Arid	43.6	781,263
West Pokot	68	57.4%	Semi-Arid	42.7	621,241
Mandera	33	77.6%	Arid	39.4	867,457
Garissa	19	65.5%	Arid	36.2	841,353
Kwale	105	47.4%	Semi-Arid	31.7	866,820
Baringo	61	39.6%	Arid	30.8	666,763
Isiolo	100	51.9%	Arid	30.6	121,066
Narok	65	22.6%	Semi-Arid	28.2	1,157,873
Homa Bay	6220	33.5%	Non-ASAL	10.2	117,439
Kilifi	116	46.4%	Semi-Arid	17	1,453,787
Kajiado	51	40.7%	Semi-Arid	13.6	1,117,840

Source: MOH

Table 2: Category 2: Moderate OD burden counties (Below 11%)

County	Density pers/km²	Poverty rate	Climate	OD %	Population
				2019	
Lamu	23	28.5%	Semi-Arid	17.9	143,920
Laikipia	55	45.9%	Semi-Arid	9.4	518,560
Migori	427	41.1%	Non-ASAL	9.4	1,116,436
Kitui	37	47.5%	Semi-Arid	9.2	1,136,187
Elgeyo/Marakwet	150	43.4%	Non-ASAL	6.8	454,480
Siaya	393	33.8%	Non-ASAL	6	993,183
Kisumu	554	33.9%	Non-ASAL	3.6	1,155,574
Busia	526	69.3%	Non-ASAL	2.5	893,681
Bungoma	552	35.7%	Non-ASAL	1.4	1,670,570
Meru	220	19.4%	Semi-Arid	1.4	1,545,714
Kakamega	619	35.8%	Non-ASAL	1.1	1,867,579

Source: MOH

Table 3: Category 3: Low OD burden counties (Less than 2.5%)

County	Density pers/km²	Poverty rate	Climate	OD %	Population
				2019	
Taita/Taveta	20	32.3%	Semi-Arid	2.4	340,671
Kericho	370	30.3%	Non-ASAL	1.5	901,777
Nandi	311	36.0%	Non-ASAL	1.5	885,711
Trans Nzoia	397	34%	Non-ASAL	1.4	990,341
Makueni	1622	34.6%	Semi-Arid	1.2	130,375
Tharaka-Nithi	153	23.6%	Semi-Arid	1.1	393,177
Bomet	349	48.8%	Non-ASAL	1	875,689
Nyamira	675	32.7%	Non-ASAL	1	605,576
Kisii	958	41.7%	Non-ASAL	0.9	1,266,860
Machakos	5078	23.3%	Non-ASAL	0.9	170,606
Mombasa	5492	27.1%	Non-ASAL	0.9	1,208,333
Nakuru	288	29%	Non-ASAL	0.8	2,162,202
Embu	216	28.20%	Semi-Arid	0.7	608,599
Vihiga	6556	43.2%	Non-ASAL	0.6	95,292
Uasin Gishu	342	41%	Non-ASAL	0.5	1,163,186
Kirinyaga	413	20%	Non-ASAL	0.2	610,411
Murang'a	419	25.3%	Non-ASAL	0.2	1,056,640
Nyandarua	194	34.8%	Non-ASAL	0.2	638,289
Kiambu	952	23.3%	Non-ASAL	0.1	2,417,735
Nyeri	228	19.3%	Semi-Arid	0.1	759,164
Nairobi	6246	16.7%	Non-ASAL	0.1	4397073

Source: MOH

Box 1: Counties' classification

Using estimates of OD rate, MOH proposes a three-tier county classification:

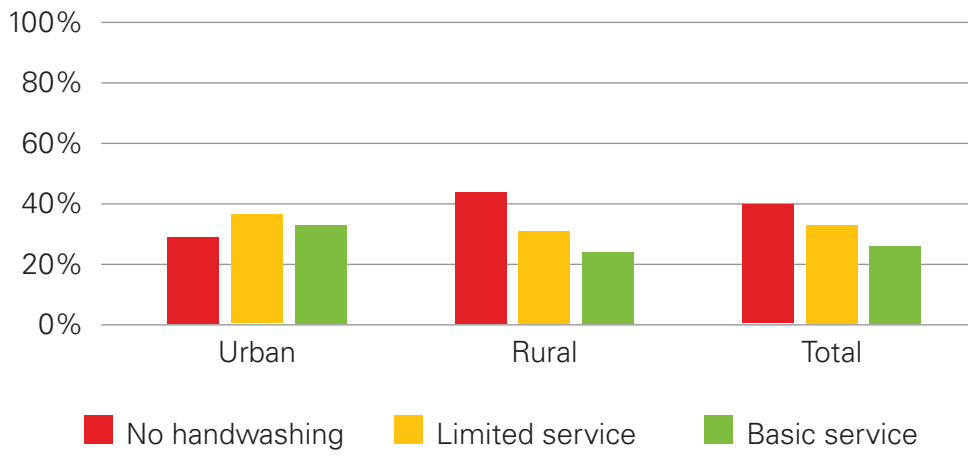
- Category 1: High OD rate (more than 10% of the county's population)
- Category 2: Moderate OD rate – (below 11% of the county's population)
- Category 3: Low OD rate – (less than 2.5% of the county's population)

An estimated 25% of rural communities in Kenya are already certified as ODF. For these communities, the challenge is to access greater sanitation service levels, at least towards durable and hygienic sanitation containment: 40% of rural residents use unimproved toilet facilities that do not provide adequate hygiene benefits. For some rural population, associated transport and treatment services are becoming critical as containments start to fill-up. There is no data, however, on the extent of access to such associated sanitation services in rural areas. Anecdotal evidence indicates that faecal sludge treatment facilities are quasi-inexistant outside major Kenyan cities and towns.

2.2 Household hand hygiene

An estimated 40% of Kenya's population had no handwashing facility at home in 2020 (Figure 2). In rural areas, hand hygiene is available to 24% of the population only, with 44% with no hand hygiene facility at all.

Figure 2: Access to hygiene services for households



Source: WHO/UNICEF (2021)

2.3 Sanitation and hand hygiene in schools

Whilst most schools are estimated to have a certain type of toilet, at least 6% of schools in the rural parts of the country do have any sanitation facility. The quality of school sanitation facilities is questionable, however. Studies indicate that the ratio of facilities to students at schools is typically inadequate in comparison with Kenyan government guidelines (25:1 for girls and 30:1 for boys).

A critical gap is in hygiene services. An estimated 84.8% of schools in rural areas had no handwashing facility in 2019 (Table 4).

Table 4: Sanitation and hygiene levels in schools

Sanitation	Rural	Hygiene	Rural
Basic service	50%	Basic service	2.2%
Limited service	46%	Limited service	13%
No access	6%	No handwashing	84.8%

Source: WHO/UNICEF (2021)

2.4 Sanitation and hand hygiene in healthcare facilities

Many healthcare facilities do not have functional latrines and handwashing stations and soap (Table 5). An estimated 2% of the healthcare facilities have no access to sanitation services at all and 8.6% have no handwashing facility.

Table 5: Sanitation and hygiene in healthcare facilities

Sanitation	Rural	Hygiene	Rural
Basic service	5%	Basic service	42%
Limited service	93%	Limited service	49%
No access	2%	No handwashing	9%

Source: WHO/UNICEF (2021)

2.5 Institutional arrangements for rural sanitation and hand hygiene

2.5.1 National level

At the national level, MOH is the lead institution for the sanitation sector, according to Kenya's Sanitation Policy (2016). MOH responsibility for sanitation and hand hygiene is strictly related to setting policy and strategic orientations as the health sector has been entirely devolved under Kenya's Constitution. Within MOH, sanitation and hand hygiene are dealt with under the Department of Preventative and Promotive Health.

In 2019, an Executive Order formed the Ministry of Water, Sanitation and Irrigation (MoWSI), providing explicit responsibility for sanitation to the then Ministry of Water and Irrigation. In practice, this means that both ministries have a mandate for sanitation and both plan sanitation interventions. In 2021, MoWSI led the development a draft national sanitation management policy, which encompasses non-sewered sanitation in both rural and urban settings. To date, MoWSI's interventions remain, de facto, more confined to urban areas where it is mainly focusing on the extension of sewer networks and associated treatment services. MOH has been traditionally in charge of sanitation and hygiene in rural areas, leading on policy development and implementation for ending OD, mainly via behaviour change campaigns and activities, and improving non-sewered sanitation services.

Other national actors involved in sanitation and hygiene include: Ministry of Environment (for setting environmental standards), Ministry of Education (for school sanitation and hygiene), Science and Technology and Educational Institutions (for school and hygiene sanitation) and the Water Services Regulatory Board (WASREB), in charge of economic regulation of water and sanitation services.

In 2021, MOH and MoWSI led the setting-up of the Kenya Sanitation Alliance (KSA) together with the governments of the 15 counties with the highest rates of OD. KSA's main mission is to enhance counties' commitment and leadership towards the elimination of OD. KSA is also receiving technical support from UNICEF and other development partners.

Coordination and information exchange among sector actors is generally weak. Coordinating bodies have been set-up such as the Environmental Sanitation and Hygiene Interagency Coordinating Committee, but the body is not active, also a reflection of a lack of large-scale concerted effort to tackle sanitation. Within that body, several technical working groups have been formed, including a national Technical Working Group for Hygiene Promotion (TWG-HP) and a separate one for Sanitation Promotion. The COVID-19 pandemic has contributed to stalling coordination efforts.

2.5.2 County level

At the county level, planning and service delivery for sanitation is also shared between the County departments of health, water and environment. Hand hygiene falls strictly under departments of health.

In line with national arrangements, county departments of health are responsible for public health, under which fall rural sanitation and hygiene interventions. Departments of health lead on Community-Led Total Sanitation (CLTS) implementation and ODF verification, with support from a sub-county network of Public Health Officers (PHOs). PHOs generally operate at the ward level, supporting Community Health Units (CHUs) comprising of Community Health Volunteers (CHVs). The role of CHVs is to engage directly with households on health-related matters, including sanitation and hygiene practice. CHVs are trained and certified by County Health Ministries and supervised by Community Health Assistants (CHAs). To date, CHVs have been an important channel of sanitation and hand hygiene communication with communities.

Water Service Providers (WSPs), which are mostly corporatised utilities owned by county governments, and falling under the Department of Water, are mainly focused on water services but are gradually being involved in non-sewered sanitation, in line with the MoWSI's mandate. WSPs fall under WASREB's licensing regime which sets service areas (mostly urbanised areas), service level standards and reporting requirements. To date, WASREB regulatory framework does not include performance indicators related to non-sewered sanitation, although a review is underway. Whilst most licensed WSPs operate in urban and peri-urban areas, some rural WSPs (as in Nakuru) have a license to operate in rural areas of their county. In practice, WSPs have limited know-how on and interest for non-sewered sanitation, as it is not seen as a direct revenue generating opportunity. Interest is growing among WSPs for the emptying segment of the value chain, which has the potential to generate a revenue stream.

2.6 Funding arrangements for rural sanitation

2.6.1 Funding channels

Counties have primary responsibility for funding sanitation and hygiene related interventions, in line with their constitutional mandate. However, limited evidence suggests that only a few counties allocate own resources in sanitation and hand hygiene. There are exceptions, as in Kitui, a county that has made strong progress in eradicating OD. Siaya and West Pokot are also reported to allocate funding towards sanitation.[9]

Counties can plan and budget for sanitation and hand hygiene-related interventions as part of their County Integrated development Plans (CIDP). In practice, sanitation

9 (Ministry of Health, 2021)

and hand hygiene are not a prominent feature of existing CIDPs. Further, to date, there is no specific budget code for sanitation and hygiene. When budgeting for sanitation and hygiene, counties do so via budget lines for wider preventative health (or water) activities. This also means that sanitation and hygiene budgets can be re-allocated. It is also difficult to track from existing budgets specific amounts allocated to sanitation and hygiene.

Similarly, specific central government expenditure on sanitation and hand hygiene is difficult to track in the absence of related budget codes. MOH, the lead institution for rural sanitation does not have a separate budget line for sanitation and hygiene. Whilst MOH is primarily responsible for funding policy and strategy development and implementation, it can provide capital investment support to counties via projects and programmes. Limited evidence suggests that MOH funding for sanitation and hand hygiene is allocated to recurring expenses (i.e. staff costs) with little no budget for project or programme implementation.

There have been national government-backed sanitation projects via loans from development partners, mainly for the development of sewered sanitation, implemented by MoWSI. By contrast, non-sewered sanitation, including rural sanitation, has only been funded via piece-meal grant-based projects – mostly funded with support from development partners and NGOs. The Water Sector Trust Fund (see section 3.2), an independent organisation falling under MoWSI's oversight, is increasingly managing funds for rural sanitation projects.

Until recently, Kenya's policy was that households are responsible for investing in their own facilities. The draft Sanitation Management Policy has introduced the option of targeted subsidies, where justified (see section 3.5.5).

2.6.2 How much is being channelled and what is being funded

An estimate of expenditures in the water and sanitation sector in Kenya indicates that sanitation, and rural sanitation in particular, is potentially under-funded. Over the last three financial years, sanitation investments represented KHS 38.6 billion or an overall 16% of total investments in the water sector. Investments in basic sanitation alone (as opposed to investments in large networked systems) which are predominant in rural areas represented 7% of investments between 2017 and 2020.[10] Data does not enable the disaggregation of hygiene from sanitation expenditures.

However, in the absence of rigorous data on specific expenditures from all potential funders and financiers, including counties and NGOs, it is not possible to conclude on the adequacy of funding levels for rural sanitation. Anecdotal evidence generated through the process of Roadmap development indicates that the lead national institution (MOH) has little to no development expenditures related to sanitation and hand hygiene (as opposed to recurrent costs). Similarly, only a few counties allocate any funds to cover the costs of (at least) sanitation and hand hygiene promotion.

10 (Ministry of Water and Sanitation, 2021)

3 Roadmap Legal and Policy Background

This Roadmap is formulated against the background of Kenya's Constitution, its legal context for sanitation and hygiene and policy objectives for the sectors.

3.1 Constitutional background

The right to sanitation is enshrined in Kenya's Constitution. It aims for all Kenyans to achieve "the highest attainable standard of health, which includes the right to health care services, including reproductive health care and to accessible and adequate housing, and to reasonable standards of sanitation" (Article 43 (a) and (b)).

The Constitution created a strong devolved governance system, in which counties have become responsible for sanitation and hand hygiene. Kenya's 47 counties have been devolved legal and executive powers with responsibilities for ensuring basic services to their constituents including sanitation and hygiene.

Among others, the Constitution compels the country to implement affirmative action programs to guarantee that minorities and marginalized groups have fair access to water, health care and infrastructure. Kenya's Constitution identifies vulnerable groups: they include members of minority or marginalised communities and members of particular ethnic, religious or cultural communities (Box 2). These populations may be more difficult to reach with sanitation and hand hygiene programmes/campaigns.

Box 2: Vulnerable groups in Kenya's Constitution

In Kenya's Constitution, marginalised communities are defined as one or more of the following:

a) A community that, because of its relatively small population or for any other reason, has been unable to fully participate in the integrated social and economic life of Kenya as a whole.

b) A traditional community that, out of a need or desire to preserve its unique culture and identity from assimilation, has remained outside the integrated social and economic life of Kenya as a whole.

c) An indigenous community that has retained and maintained a traditional lifestyle and livelihood based on a hunter or gatherer economy; or pastoral persons and communities, whether they are: (i.) nomadic or (ii.) a settled community that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole.

3.2 The Water Act

The Water Act (2016) stipulates that a national Water Services Strategy must be formulated every five years, with public participation. This water strategy also includes sanitation – although understood to be referring primarily to sewerage services. The strategy must contain, among other things, 'the number and location of people who are not provided with a basic water supply and basic sewerage services' and 'a resource mobilization strategy for the implementation of the plans'. The act established the Water Services Regulatory Board (WASREB) whose principle objective is to protect the interests and rights of consumers in the provision of water services. The Water Act also established the Water Sector Trust Fund whose objective is 'to provide conditional and unconditional grants to counties, in addition to the Equalization Fund and to assist in financing the development and management of water services in marginalized areas'.

The Water Act stipulates that county governments water sector plans should form the basis of a national water sector investment and financing plan. Such county plans should "include, among other details, the time frames for the plans and an investment programme based on the investment plans" and would be aggregated to constitute the national plan.

3.3 Kenya Vision 2030

Kenya Vision 2030 serves as the country's long-term development plan. It aims to transform the country into a globally competitive and prosperous nation with a high quality of life by 2030. The 2030 vision incorporates sanitation and aims to ensure that improved water and sanitation are available and accessible to all. Amongst others, Vision 2030 proposes the following actions:

- Promotion of the use of hygienic toilets including ventilated and improved pit latrines and septic tanks in rural areas and schools on a ratio of one toilet for every 35 boys and one toilet for every 25 girls;
- Constructing sanitation facilities to support a growing urban and industrial population;
- Development and expansion of sewerage schemes especially in urban areas;
- Promotion of public health education on sanitation;
- Encouraging planned rural and informal urban settlements to ensure access to improved and safe sanitation;
- Innovations in rural waste disposal combined with relevant incentives; and
- Encouraging transition from traditional pit latrines to (adoption of) improved sanitation technologies or versions.

3.4 Other Acts

The County Government Act (2012) assigns responsibility for sanitation planning and performance management to county governments. The Public Health Act also mandates local government authorities to take all lawful steps to maintain clean and healthy sanitary conditions within their jurisdiction. In practice, county governments perform their functions for sanitation and hygiene via their water and public health departments.

3.5 Policies

3.5.1 Kenya Environmental Sanitation and Hygiene Policy (KESHP)

Kenya Environmental Sanitation and Hygiene Policy (KESHP) 2016–2030 sets the bar for improved sanitation for all, not just eradicating open defecation. It aims to (i) achieve and sustain 100% ODF Kenya by 2030 (ii) achieve and sustain 100% access to improved sanitation in rural and urban areas by 2030, and (iii) increase public investment in sanitation and hygiene from 0.2% to at least 0.5% of the GDP by 2020 and to 0.9% of the GDP by the year 2030. KESHP recognises the need for a variety of non-sewered technologies and focuses on choices of containment technology.

KESHP recognises that promotion of hand washing with soap is part of essential environmental sanitation and hygiene services. Handwashing features is an aspect of personal hygiene for households and in all public places and institutions such as schools and health care facilities.

KESHP includes specific provisions for sanitation and hygiene among vulnerable populations. It has a policy principle on gender responsiveness and social inclusion gives priority to vulnerable segments of the population.

In order to implement the policy, the KEHS was also developed in 2016, aiming to achieve 100% ODF by 2020 and increase access to higher sanitation service levels. As part of its flagship proposal, the KEHS advocated for the preparation of county-wide sanitation strategic plans.

To address institutional fragmentation and financing bottlenecks in the sanitation sector, KESHP provides for the establishment of the National Environmental Sanitation Coordination and Regulatory Authority (NESCRA) and the National Sanitation Fund (NASF). A bill for the establishment of these institutions had yet to be passed as of 2022.

3.5.2 Kenya Health Policy

The Kenya Health Policy 2014–2030 emphasises the importance of sanitation and hygiene. Kenya's national health policy acknowledges that "diarrhoeal diseases are the fifth leading cause of death in the country and that inadequate access to safe water, sanitation, and hygiene is the second most significant risk factor for mortality".

3.5.3 National Environmental Policy

The National Environmental Policy (2013) also includes provision for sanitation. The policy sets that quality standards for wastewater effluents must be enforced by government with adequate regulation of all waste (including faecal sludge). In addition, among its policy statements, the National Environmental Policy sets for the government to:

- Promote technologies for efficient and safe water use, especially in respect to wastewater use and recycling; and
- Provide incentives for private sector investment and development of appropriate water and sanitation technologies and infrastructure for waste management.

3.5.4 Rural Sanitation and Hygiene Protocol

In 2021, MOH led the development of a revised Rural Sanitation and Hygiene Protocol, which supplanted the CLTS protocol developed in 2014. This revised protocol recognises the need to implement adapted behaviour change approaches, which include but are not limited to CLTS. Tailored approaches are particularly needed to reach communities in ASAL who may have specific social norms and behaviours that make the adoption of hygienic sanitation behaviours more challenging, notably among nomadic populations and vulnerable groups.

The Rural Sanitation and Hygiene Protocol also introduces the notion of "grade" (similar to the notion of "service level" but combining behaviour as well) to determine communities' sanitation and hand hygiene situation. It proposes four community-level sanitation and hygiene grades with corresponding indicators (Table 6).

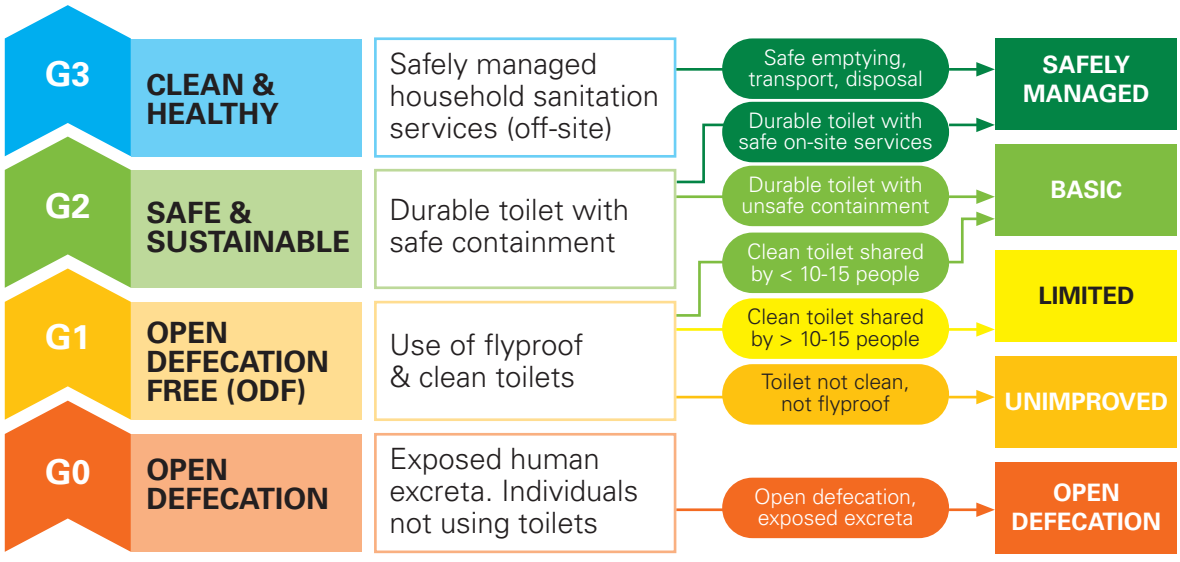
Table 6: Grades under the Rural Sanitation and Hygiene Protocol

Grade	Indicators
G3: CLEAN & HEALTHY	• G3-2 Permanent handwashing services • G3-3 Safe waste management • G3-4 Good personal hygiene • G3-5 Good nutrition • G3-6 Safely managed institutional sanitation services
G2: SAFE & SUSTAINABLE	• G2-1 Individual use of durable toilets with safe containment • G2-2 Handwashing with soap at critical times • G2-3 Safe food hygiene • G2-4 Safe water management • G2-5 Safe management of animals and animal wastes
G1: OPEN DEFECATION FREE (ODF)	• G1-1 Use of flyproof and clean toilets • G1-2 Presence of handwashing facility with water & soap • G1-3 No exposed human excreta • G1-4 Safe management of child excreta and diapers
GO: OPEN DEFECATION	• Exposed Human and animal excreta • Individuals not using toilets • Lack of handwashing practice

Source: Adapted from the Rural Sanitation and Hygiene Protocol

This Protocol represents a slight departure from service levels as proposed by WHO-UNICEF under the JMP. However, as presented in Figure 3 below, those service levels are embedded in the Protocol grades.

Figure 3: How Protocol grades relate to the JMP service levels



Source: MOH

Kenya is in the process of officially adopting these grades to plan and manage improvements in rural sanitation and hand hygiene. Guidelines have also been developed to support the implementation of the Rural Sanitation Protocol.

3.5.5 National Sanitation Management Policy

A National Sanitation Management Policy has been drafted by MoWSI and is pending approval as of 2022. The policy provides an enabling framework for universal access to equitable and sustainable sanitation services that are safely managed throughout the service chain. More specifically, the policy recognises that:

- Onsite sanitation facilities are part of a sanitation service chain;
- Low-cost solutions can be adequate technologies;
- Decentralized wastewater/faecal sludge treatment systems are part of the solution; and
- Utilities or Water Service Providers (WSPs) should be fully engaged in the promotion and implementation of non-sewer sanitation including public and household sanitation facilities.

The draft National Sanitation Management Policy also establishes guidelines on the formalisation of the onsite/non-sewered sanitation chain to ensure that all utilities adopt safe sanitation management concept and calls for strengthening regulation of onsite sanitation service across the sanitation chain.

3.5.6 Other related health policies

Kenya Community Health Policy (2020-2030) refers to health promotion activities on hand-washing, which may include demonstration where appropriate by environmental health personnel. It refers to promotion of health education at household and community level. This includes ensuring households and communities have access to clean safe drinking water and good hygiene practices such as hand-washing among other.

Kenya School Health Policy (2018) refers to adequate and well-maintained handwashing facilities including soap shall be provided in each school and located within the vicinity of the toilet/latrine, eating and play areas. Hygiene promotion will be learner centred and an ongoing process to positively influence behaviour change. The national school health policy and guidelines promote access to WASH services in schools across all counties.

Kenya National Infection Prevention and Control Strategic Plan for Health Care Services (2021-2025) states that appropriate hand hygiene practice should be found in health care settings.



4 Key Principles of the Roadmap

This section presents the key principles underlying the Roadmap objective, targets and activities.

4.1 Service levels

This Roadmap proposes objectives and targets for service levels to be achieved by 2030 using the protocol grading system (see section 3.5.4 for a detailed presentation of the Protocol). It is important to note, however, that as of February 2022, a full baseline assessment of where communities stand in relation to those grades and the percentage of the population falling in each grade category still needs to be developed. In the meantime, the Roadmap uses the 2019 Census indicators as proxy indicators to propose a tentative estimate of where Kenya stands in relation to the grades and the level before proposing the type and level of effort required to meet sector targets (Table 7). Tracking Kenya's progress towards meeting its sector targets (expressed using the Protocol grades) requires the preparation of a baseline (an activity included in the Roadmap).

Table 7: Proposed proxy indicators from the Census to construct a Roadmap baseline and set targets

Grade (sanitation services only)	Census data proxy indicators
G0: Open defecation	Open defecation
G1: ODF	% of population using: • Bucket latrine • Pit Latrine uncovered • Pit latrine covered
G2: Safe and Sustainable	% of population using VIP latrines
G3: Clean and Healthy	% of population using: • Septic tank • Cess pool • Bio-septic tank • Off-site

Further, the Roadmap only focuses on the specific sanitation in human excreta management and hand hygiene aspects of the grading system, providing targets exclusively to related indicators. It therefore does not provide targets and approaches related to wider hygiene behaviour (e.g. animal excreta management) and health indicators such as vaccination status.

Targets for sanitation and hand hygiene are presented separately. Sanitation-related targets as expressed as "G1 or G2 or G3-level sanitation containment" targets as they only relate to the containment/user interface component of the sanitation service chain. This roadmap does not propose targets and indicators related to emptying, transport or treatment services mainly due to lack of data on the situation of these services.

4.2 Tackling OD whilst supporting the move towards greater service levels

The Roadmap puts the emphasis on ending OD by 2030. Although the SDG 6 aims for universal use of safely managed services, it is up to national governments to set their targets based on what is realistically achievable by 2030. Considering challenges ahead pertaining to hand hygiene and sanitation – and the specific context of some counties, focus should remain the eradication of open defecation by 2030. As such, many Kenyans will still have access to what can be considered to an unimproved or limited service by 2030 (equivalent to a G1-sanitation service level in the Protocol).

Whilst efforts will be put on ending OD, the strategy is to develop higher levels of sanitation services simultaneously in all communities. Any ODF strategy will be accompanied by a strategy to generate demand for more durable and hygienic toilets and for ensuring adequate supply to meet demand. In communities already ODF, interventions will focus on building demand and supply for better quality sanitation services (up to G2 or G3 service levels).

Regarding hygiene, the Roadmap is in line with the global Hand Hygiene for All initiative. This WHO and UNICEF-led initiative calls for countries to lay out comprehensive roadmaps that bridge together national COVID-19 preparedness and response plans with mid- and long-term national development plans to ensure hand hygiene is a mainstay beyond the pandemic, as part of infection prevention and control (IPC) and water, sanitation and hygiene (WASH) efforts. This initiative calls for governments to aim access to basic hygiene for all by 2030.

4.3 Tailored approaches to sanitation and hand hygiene uptake

4.3.1 CLTS and beyond

There is broad consensus that CLTS alone is not sufficient to deliver safely managed sanitation and hand hygiene objectives. For instance, CLTS is not generally appropriate in communities with low OD rates (where OD is rarely visible), in communities that failed to 'ignite' after triggering, in very large communities, those where latrine subsidies were

previously used, or in challenging contexts. In these (and other) cases, it may be necessary to use other sanitation approaches (such as sanitation marketing), adapt the CLTS approach to the context, or to combine CLTS with another approach. Context analysis is required to classify communities and inform the selection of appropriate implementation approaches, and an appropriate or adapted sanitation protocol.[11]

A complementary approach to CLTS includes the "CLTS+ approach". The "plus" (+) represents a focus beyond the original CLTS interpretation. CLTS+ calls for a hybrid sanitation approach for better results within some communities. The "+" can also combine demand creation for sanitation with efforts to generate and enforce local by-laws. The "+" also refers to activities related to encouraging innovation with locally appropriate latrine designs using local materials to meet geophysical challenges.

In many communities, indeed, conditions are also ripe for incentivising the adoption of safer and more durable and inclusive sanitation facilities. For these communities, a holistic approach to triggering demand for such products. The sanitation marketing approach – whereby efforts are put in to build both supply and demand for services - is one relevant approach – although it may not be adapted to all contexts. Sanitation marketing entails identifying and supporting service providers so that they can deliver products and services at the optimum quality and price, recognising the facilities and services must be affordable. It also implies the continuous promotion of sanitation through communication campaigns within communities.

4.3.2 Adapted hand hygiene promotion

Similarly, hand hygiene behaviour strategies need to be adapted to contexts. Behaviour change communication on the importance of handwashing and proper technique should employ educational content (i.e. providing factual information) and behaviour change approaches (that use social or emotional motivators and pressures to change behaviour).

Predominant hygiene approaches include Community Health Clubs, PHAST (Participatory Hygiene and Sanitation Transformation), CHAST (Children's Hygiene And Sanitation Training), SARAR (Self-esteem, Associative strengths, Resourcefulness, Action-planning, and Responsibility) and Child to Child as well as blended approaches with hygiene approaches in CLTS programmes. Triggering in CLTS can ignite community interest in hand hygiene and to encourage people to build handwashing stations, including the Tippy Tap and SATO tap. Implementers usually take a 3-pronged approach consisting of: mass media (for instance radio is commonly listened to in Kenya and an accessible source of information including to spread messages on hand hygiene practices); evidence-based behaviour change campaigns and more recently digital behaviour change (including social media platforms) to reach audiences and targeted messaging.

11 (Ministry of Health, 2021).

4.4 Non-sewered services as the norm in the medium-term

This Roadmap recognises that non-sewered services are likely to be most appropriate sanitation solutions in the short to medium-term in rural parts of Kenya, as well as in small towns. This assumption is based on the potential investment costs of sewered services, but also water consumption levels, which mean that networked sanitation is not appropriate. In addition, when well-managed, non-sewered services can provide an equivalent level of health and environmental services as sewered sanitation. These benefits of non-sewered sanitation have already been acknowledged in Kenya 2016 Sanitation Policy and have been re-affirmed in the 2021 draft Sanitation Management Policy. Service levels improvements proposed in the Roadmap are therefore based on the development of a range of non-sewered technologies.

Table 8 provides examples of technologies suitable to be promoted for achieving G1, G2 and G3-sanitation containment. G2 and G3-level containment are combined in that the main difference is the availability of associated transport and treatment services for households living in G3 environments.

Table 8: Examples of suitable sanitation technologies

G1-sanitation containment	G2 and G3-sanitation containment*
1. Simple pit with a flyproof and cleanable slab	1. Ventilated Improved Single Pit (VISP) Latrine 2. Ventilated Improved Double Pit (VIDP) Latrine 3. Latrines/Toilets Linked to Leach pits 4. Latrines/Toilets Linked to Septic tank 5. Toilet Linked to Biogas Plants 6. Container-based sanitation 7. Pour flush to sewer or septic tank 8. Connection to condominial sewerage * All these solutions should be developed so that they provide "safe" containment, e.g. that there aren't any surface outflows, leaks, overflows or continuous outflows; and that there is very limited risk of groundwater contamination.

4.5 Local ownership and bottom-up planning

Long-lasting sanitation and hygiene improvements require leadership and buy-in at national as well as subnational levels. This is why the Roadmap proposes an approach that builds on bottom-up planning by county governments, combined with targeted support from the national government to counties for plans implementation.

This approach is in line with Kenya's Constitution and the Water Act, which assigned the responsibility of sanitation and hygiene to county governments. At the same time, as per the situation assessment, the Roadmap recognises that counties' technical capacity and financial resources are unlikely to be sufficient to meet sector objectives. Although county governments need to have ownership over sanitation and hygiene services – especially in the long run, for monitoring and sustainability purposes, national government has critical role to play to support in channelling technical know-how, the provision of guidance in key areas and to support in terms of financial resources, where needed.

4.6 Role of government in funding sanitation and hand hygiene

4.6.1 Funding sanitation services

According to Kenya' policy responsibility for financing sanitation is shared between the national government, county governments, private sector and users of services. The 2021 draft sanitation management policy calls for an increase in national and subnational budgetary allocation. This section draws on this policy to specify how national and county government funding can be used.

1. **National government has a central role to play in supporting capital investments for sanitation and hand hygiene, including behavior change for non-sewered sanitation:** although county government bear the responsibility for sanitation and hand hygiene, the full costs of implementing related activities (including behavior change, sanitation marketing) will not be affordable from a county budget perspective; national government, with support from development partners, will provide financial resources to support counties in carrying out activities; this support also acts as an incentive for counties to invest own resources into sanitation and hand hygiene; national government has also an important role to play in funding sanitation assets, such as wastewater and faecal sludge treatment plants.
2. **Households have the primary responsibility for financing their sanitation facilities:** behaviour change efforts and sanitation marketing will aim to trigger demand for better quality sanitation and hand hygiene facilities and leverage household investments in the sanitation sector; this approach will ensure the sustainability of sanitation interventions (household investments indicate that demand has been well established) and affordability for national and subnational governments.
3. **National, subnational governments and WSPs can provide targeted subsidies to eligible households and services:** as recognised in the 2021 Draft Sanitation Management Policy, the costs of sanitation may not be affordable for all households in some communities (even when payment by credit is introduced); these affordability constraints can justify the provision of targeted subsidies. Any subsidy policy introduced will be carefully assessed along the Draft Sanitation Management Policy guidelines (Box 5). Funding for subsidies can come from national or subnational revenues (taxes) or from tariffs revenues (used as cross-subsidies).

4. **The private sector will be incentivised and supported to invest in sanitation and hygiene:** the private sector has an important role to play in the provision of sanitation and hygiene products and services, including provision of quality toilet facilities, emptying services as well as treatment facilities. Expanding private sector provision require investment capital and a conducive framework for private sector participation. National and subnational governments have a role to play to facilitate private sector investments, including via the sharing of market intelligence and facilitating business development support for sanitation entrepreneurs to access to capital. For larger investments, for example in wastewater and faecal sludge treatment plants, financial incentives can be provided in Public-Private Partnership (PPP) contracts.

Box 6: The question of subsidies in the 2021 draft Sanitation Management Policy

The Sanitation Management Policy extensively recognises the need to provide subsidies to support access to sanitation and hygiene. For example, it states that the government will:

- Design appropriate market-compatible financing options including new types of cash transfer and social subsidies to address issues of financial exclusion for the poor and people with special needs and to enable households in the lower wealth quintiles access sanitation services and products through the market. Sanitation market development shall take into consideration different access bottlenecks and factors such as equity and social inclusion considerations and different consumer needs;
- Conduct mapping and needs assessment to identify the most vulnerable and marginalized populations and areas in order to design appropriate affirmative action interventions and methods/approaches of delivering subsidies to the poor and vulnerable groups/consumers.

However, it does caution against risks of inclusion error (providing subsidies to those who can afford services, and are not eligible) and exclusion error (excluding communities/households that are eligible) and therefore sets the aim for each county to "***design and implement a carefully targeted subsidy framework*** to support access to sanitation services across the service chain where full cost-recovery and cost-reflective tariffs as well as prices paid for services are not affordable for all users or where they are not possible for equity and affordability reasons." The central government – via MoWSI and other relevant stakeholders – also commit to designing guidelines for the preparation of a subsidy framework.

5. **Responsibility for funding school sanitation and hand hygiene rests within the Ministry of Education:** Ministry of Education will plan and fund the upgrade and construction of school sanitation and hand hygiene (with support from national government and development partners if necessary); Ministry of Education will also promote adequate funding for maintenance of these school facilities via schools budgets and parents contributions. Schools Board of Management (BOM) need to set aside funds from the national free primary education fund allocations for use in maintenance of hand washing facilities. Schools can also collect money or soap from parents.

6. **Responsibility for funding sanitation and hand hygiene in healthcare facilities rests within county governments:** national government can support counties with financial resources towards the construction and rehabilitation of sanitation and hand hygiene facilities in these settings.

4.6.2 Funding hand hygiene services

Funding for hand hygiene services will also require a mix of public and private funding. Public funds playing a key role in generating demand for hygiene facilities and ensuring the supply of such facilities among rural communities.

The primary responsibility for hygiene promotion relies on county government, who can budget for hygiene-related activities under promotive health budget lines. However, it is not excluded, that under a national programme, national government supplement county budgets to enable the acceleration of hand hygiene for all.

Households bear the responsibility for investing in their own hand hygiene facilities. County government will ensure that effective hand hygiene promotion is in place to trigger these investments and that adequate facilities are available at local hardware and retailer stores. Counties will also ensure that targeted households have access to water for handwashing.

4.7 Inclusion and leaving no one behind

In line with Kenya's Constitution and policy, key activities to be implemented to achieve sanitation and hand hygiene for all need to be inclusive throughout: from the planning of activities to their implementation. Activities are to be prioritised based on the pressing needs of those that are more vulnerable and more affected by lack of sanitation and hygiene (women and girls in particular). Critically, national level institutions will channel support to counties with less resources in priority, where lack of sanitation and hygiene is prevalent, in the context of high poverty rates. Specific guidance and support will be provided to counties where communities face these contextual challenges. A county level, specific attention will be provided from the outset to the needs of more vulnerable communities, with adequate resources mobilised for outreach and ongoing engagement.

The Kenya Environmental Sanitation and Hygiene Policy (2016-2030), under the policy principle on gender responsiveness and social inclusion gives priority to vulnerable segments. Regarding sanitation, it states: "the planning of, investment in, and the promotion of sanitation facilities must therefore address the special needs, interests and priorities of women and girls, older members of society and persons with disability with due consideration for men and boys to ensure adequate access, usage and maintenance of the facilities".[12] Similarly MoWSI states that efforts for universal access to sanitation will focus on the "poorest marginalized and unserved aimed at progressively eliminating inequality in access to sanitation services".[13]

12 (Ministry of Health, 2016)

13 (Ministry of Water, Sanitation and Irrigation, 2018)

5 Roadmap Objective and Targets

5.1 Overall objective

This Roadmap is setting the objective for Kenya to achieve access to improved levels of sanitation and basic hand hygiene by 2030. The key objective for 2030 is as follows:

> By 2030, all of Kenya's rural population is living in an environment free from open defecation, with access to basic hand hygiene facilities and with some rural communities able to access higher sanitation service levels.

In order to achieve this overall objective, the Roadmap sets a number of targets related to 10 outcome areas as presented in Figure 4 below. These outcomes fall into two broad categories: (i) "Access to services outcomes" (outcomes 1-4) and "enabling outcomes" (outcomes 5-10).

Figure 4: National rural sanitation and hand hygiene objective and expected outcomes

By **2030**, all of Kenya's rural population is living in an enviroment free from open defecation, with access to basic hand hygiene facilities and with some rural communities able to access higher sanitation service levels.

1. Kenya's rural population has access to G1, G2 or G3 - level sanitation containment
2. Kenya's rural population has access basic hand hygiene facilities
3. All rural schools have basic sanitation and hand hygiene facilities
4. All rural health care facilities have basic sanitation and hand hygiene facilities
5. Improved institutional capacity for planning and implementation
6. Improved demand for sanitation and hand hygiene products and services
7. Improved supply of adequate sanitation and hand hygiene products and services
8. Improved availability of financial services for sanitation investments
9. Resource mobilised for roadmap implementation
10. Improved organisational capacity for monitoring and accountability

Specific targets related to these outcomes are presented below.

5.2 Outcomes and proposed targets

Outcome 1: Kenya's rural population has access to G1, G2 or G3-level sanitation containment

This Roadmap is setting that **100% Kenya's rural population will have access to G1-level sanitation** containment by 2030. Sub-targets are:

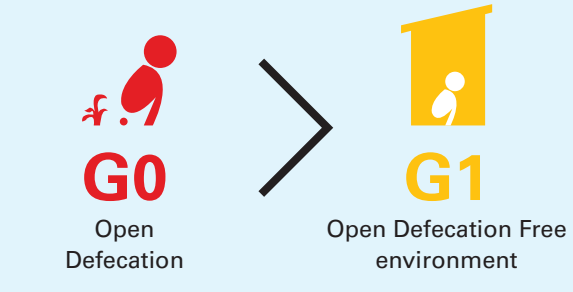
- **100%** of the population currently in high OD counties use at least G1-level sanitation containment; and
- **100%** of the population currently in medium to low OD use at least G1-level sanitation containment by 2027.

The Roadmap also sets targets for **improving service levels for those currently living in ODF** environments; this means that:

- At least **80% of Kenya's rural population use G2-level sanitation containment by 2030**; and
- At least **10% of Kenya's rural population use G3-level sanitation by 2030**.

This means that by 2030:

3,883,422
people will progress from **G0** to **G1**



24,353,289
people will progress from **G1** to **G2**



168,583
people will progress from **G2** to **G3**

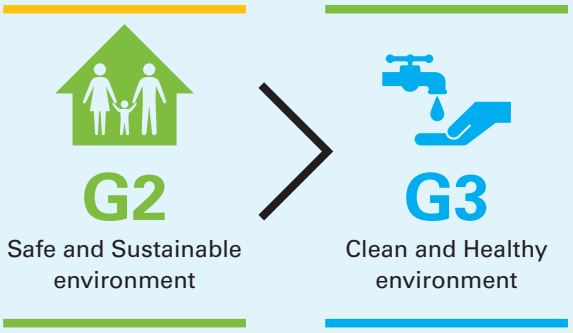
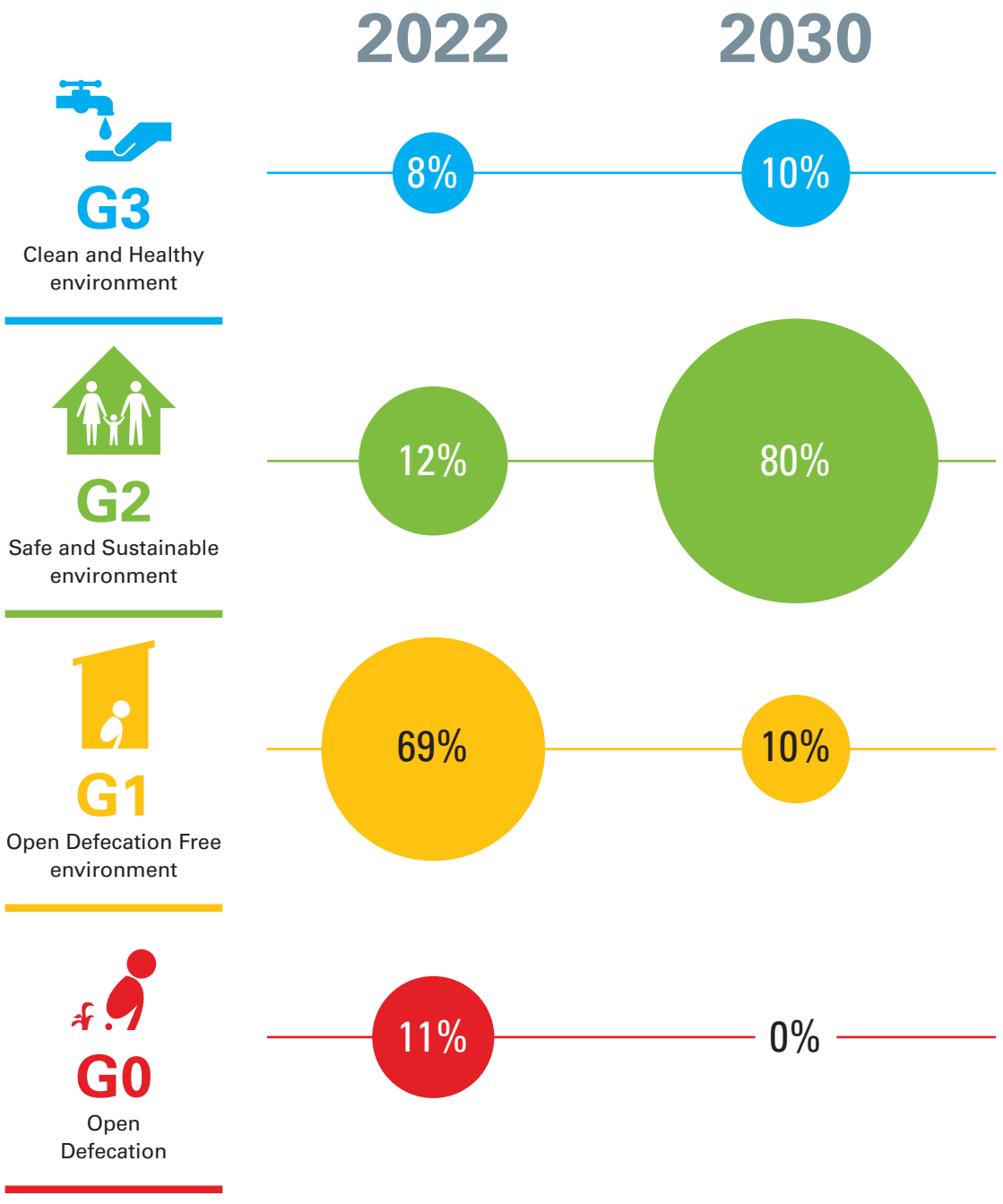


Figure 4 below summarises the Roadmap targets for use of sanitation solutions. As presented major shifts projected are: (i) eradication of open defecation, with most rural residents accessing G2-level containment solutions (which are durable, with safe containment and used by less than 15-20 people).

Figure 5: G0, G1, G2 and G3-level containment baseline (2022) and targets (2030)



Outcome 2: Kenya's rural population has access to basic hand hygiene services

The Roadmap sets the target that:

- **100%** of Kenya's rural population will use **basic hand hygiene services by 2030**.

Outcome 3: All rural schools have basic sanitation and hand hygiene facilities

The Roadmap sets the following targets related to sanitation and hand hygiene in rural schools:

- **100%** of Kenyan rural schools have **basic sanitation facilities**; and
- **100%** of Kenyan rural schools have **basic hand hygiene facilities**.

Outcome 4: All rural healthcare facilities have basic sanitation and hand hygiene facilities

The Roadmap sets the following targets related to sanitation and hand hygiene in rural health care facilities:

- **100%** of Kenyan rural healthcare facilities have **basic sanitation facilities**; and
- **100%** of Kenyan rural healthcare facilities have **basic hand hygiene facilities**.

Outcome 5: Improved institutional capacity for planning and implementation

The Roadmap sets the following (minimum) targets related to institutional capacity:

- All **counties have a detailed county-wide sanitation and hygiene plan** meeting MOH guidance; and
- **Guidance is developed by MOH** (with support from MoWSI and MoE) and disseminated for planning sanitation and hand hygiene services.

Outcome 6: Improved demand for sanitation and hand hygiene products and services

The Roadmap sets the following (minimum) targets regarding building demand for sanitation and hand hygiene products and services:

- **National campaign** for sanitation and hand hygiene launched; and
- **Sanitation marketing** plan developed and rolled-out in **45 counties**.

Outcome 7: Improved supply of adequate sanitation and hand hygiene products and services

The Roadmap sets the following (minimum) targets regarding the supply of sanitation and hand hygiene products and services:

- Artisans and masons trained to deliver sanitation and hygiene products and services in 45 counties; and
- Development of training modules for sanitation products and services curriculum for colleges.

Outcome 8: Improved availability of financial services for sanitation and hand hygiene

The Roadmap sets the following targes with regards to the supply of financial services for sanitation and hand hygiene:

- **National roundtable on financial services** for sanitation and hand hygiene organised to assess opportunities and challenges; and
- Development of an **action plan to increase the supply of finance** for sanitation investments.

Outcome 9: Resources mobilised for Roadmap implementation

The Roadmap sets the following (minimum) targets regarding resource mobilisation for implementing the Roadmap:

- Funding from central government is mobilised to cover the costs of supporting county governments for achieving sanitation objectives;
- Funding from county governments is mobilised to support Roadmap implementation; and
- County subsidy policy are developed as part of the sanitation and hygiene plan.

Outcome 10: Improved organisational capacity for monitoring and accountability

The Roadmap sets the following (minimum) targets regarding organisation capacity for monitoring and setting accountability mechanisms:

- A **national Roadmap implementation coordination body** in place and effective;
- A **county-level Roadmap implementation coordination body** in place and effective; and
- The **RT MIS operational** and up to date.

6 How will targets be achieved: Key Activities to Implement

The following table summarises activities to be implemented to achieve targets and Roadmap objective. Each of the activities is described in the following section.

Table 9: Summary of activities to implement to reach Roadmap objectives

Activity	Outcomes (Enabling)	Outcomes (Access level)
1. Developing costed county-wide sanitation and hygiene plans 2. Developing additional guidance/regulations related to sanitation planning (including standards and regulations) 3. Building capacity at county level for the development, implementation and monitoring of sanitation and hand hygiene plans 4. Set-up national and county-level responsibilities for Roadmap (and sanitation and hygiene plans) implementation and monitoring	Outcome 5. Improved institutional capacity for planning and implementation	Outcome 1. Kenya's rural population has access to G1, G2 or G3-level sanitation Outcome 2. Kenya's rural population uses basic hand hygiene services Outcome 3. All rural schools have basic sanitation and hand hygiene facilities Outcome 4. All rural healthcare facilities have basic sanitation and hand hygiene facilities

5. Implement evidence-based sanitation and hand hygiene behaviour change activities so as to build demand for improved sanitation and hand hygiene products and services	Outcome 6. Improved demand for sanitation and hand hygiene products and services	
6. Support the supply-side, including by building capacity of private sector to deliver inclusive sanitation and hand hygiene products and services in line with local regulation/ standards	Outcome 7. Improved supply of adequate sanitation and hand hygiene products and services	
7. Engage with financial service providers and development partners with experience in financial services for sanitation to set an action plan for systematically embedding access to finance in sanitation and hand hygiene interventions	Outcome 8. Improved availability of financial services for sanitation and hand hygiene	
8. Advocating for, mobilising and allocating resources for plan preparation, implementation and monitoring	Outcome 9. Resources mobilised for Roadmap implementation	
9. Ensure national oversight over progress towards sanitation and hand hygiene targets	Outcome 10. Improved organisational capacity for monitoring and accountability	

6.1 Development and review of county-wide sanitation and hygiene plans

The national Roadmap is a blueprint for designing and implementing programmes at the county level. As county governments have the responsibility to plan, implement and monitor specific interventions, they will be incentivised to develop long-term county-wide sanitation and hygiene plans that will guide their actions up to 2030. Such a plan will provide a baseline of the situation of sanitation and hygiene services in the county and will identify investment needs to achieve county objectives.

Ideally, county plans will be county-wide plans, in line with the Countywide Inclusive Sanitation (CWIS) approach and the Rural Sanitation Protocol Implementation Guidelines[14]. Plans will focus on both urban and rural settings as boundaries continuously shift. Counties that already have a well-developed sanitation and hygiene plan will be incentivised to review their plans to ensure that adequate provision has been made for rural sanitation and hand hygiene, and that they comply with MOH guidelines.

Each county should list all activities required to achieving the Roadmap. Counties will have different starting points and must develop different strategies for rural centres, institutions (schools and health care facilities), remote rural and ASAL communities, nomadic communities and challenging contexts (such as water scarce areas).

With regards to rural and small-town settings (the focus of this Roadmap), the plan should map out:

- Communities where households practice OD, where at least G1-type sanitation containment is required;
- Communities with households that are ready to move up to higher service levels, G2 or G3-type sanitation facilities;
- Communities lacking hand hygiene facilities and hygienic behaviour,
- Communities/towns where emptying services are needed or will be needed in the medium-term (in 5 to 10 years);
- Communities with specific challenges (e.g. ASAL, coastal, lakeside communities and remote locations);
- Local artisans and entrepreneurs interested in receiving training and support to deliver sanitation and hand hygiene services;
- Availability of supply of sanitation and hand hygiene products and services:
  - » Available sanitation and hand hygiene products and their quality (in terms of inclusive, durability and cleanliness)
  - » Available emptying, transport and treatment facilities for relevant communities;
- The state of emptying and treatment services and risks related to lack of such services.

14 (Ministry of Water, Sanitation and Irrigation, 2021).

Based on this initial assessment, the plan will set county 2030 targets for sanitation and hygiene. All counties will aim to achieve 100% ODF and hand hygiene practice by 2030. In addition, each county will specifically set-out county targets related to G2 or G3-type sanitation containment.

The plan will also set out gaps in emptying, transport and treatment services and identify where such services are lacking using national guidance.

The plan will clearly set-out activities that will need to be implemented. These will include:

- CLTS, hand hygiene behaviour change and sanitation marketing activities: these imply door-to-door engagement as well as communication via radio shows, billboards and other visual means;
- Sustainability checks and ODF status routine monitoring;
- Adapted approaches to ASAL communities where identified and to other challenging contexts;
- Inclusive approaches for people vulnerable to inequalities such as older people, people with disabilities, people in vulnerable groups;
- Building capacity of small-scale artisans to deliver low-cost and accessible sanitation and hand hygiene based on county standards and regulations;
- Where relevant, services infrastructure development, including emptying and treatment facilities.

The plan will also include an estimate of budget requirements and investment needs. These costing will inform sanitation and hand hygiene related annual county budgets and the formulation of expenditures for 2025/26-2027/28.

6.2 Development of additional guidance related to sanitation and hygiene planning

The national government will lead a process of developing or updating planning and operational guidelines, which will help facilitate the uptake of sanitation and hygiene services. This effort will focus on the following activities in priority:

- Development of a **template for sanitation and hygiene countywide plans**: this template will indicate the minimum data to collect, methods for estimating budgets and investment requirements, among others. The template will help the development of operational plans, with the right balance in terms of level of data requirement so counties are not put off and plans can be prepared even in contexts of limited capacity;
- Guideline for sanitation and hand hygiene **behaviour change activities tailored to ASAL**, coastal/sandy areas communities;
- Guideline for addressing the **needs of different vulnerable groups** within a community;
- Identification and **dissemination of acceptable construction norms for latrines**;
- **Planning guidelines for emptying services**: lack of standard operating procedures and safety plans for operations and maintenance of both sewered and non-sewered

sanitation systems has been highlighted in the Draft Sanitation Management Policy of 2021. The policy has included strategy to develop and enforce guidelines and standard operating procedures for safe emptying/transportation and conveyance of faecal sludge; such guidelines should be developed with consideration for operations in small rural towns or centres; and

- **Guidelines for FSTP planning:** at what population threshold should counties consider FSTP in small towns; what are criteria/considerations need to be factored?

6.3 Building capacity at county-level

The national government will lead and coordinate a national effort to build counties' capacity to develop, implement and monitor their sanitation and hand hygiene plans. This entails activities to:

- Disseminate the Roadmap targets and activities to county governments;
- Disseminate additional guidance, particularly for developing countywide sanitation and hand hygiene plans;
- Identify and select counties for targeted support on Roadmap implementation; support will focus on (at least):
  - » Additional guidance to counties with high OD rate for developing sanitation and hand hygiene plans, with a particular focus on approaches to appropriate behaviour change;
  - » Capacity building of PHOs for implementing behaviour change, sanitation marketing, linkages with the supply side and monitoring;
  - » Facilitating the identification of adequate financing mechanisms to support households' investments in sanitation and hand hygiene as well as sanitation entrepreneurs with working/start-up capital;
  - » Channel direct support for building the capacity of local artisans/masons.
- Organise national forums for PHOs on sanitation and hand hygiene and their role for developing the sector.

The national government, with MOH in the lead, will formulate a detailed capacity building plan with a budget. This national capacity building plan will be used to support national budget allocation and mobilise additional resources.

County governments will also plan for capacity development. Planning will be consistent with the rural sanitation and hand hygiene targets and with the specific requirements of the implementation strategies adopted by the county government and subcounty administration. Capacity gaps and training needs of different stakeholders will be identified and a training programme/material will be developed for different stakeholders. Capacity building at the county level will be supported by the County Public Health Office and County Director of Health. Particular attention will be given to front-line health workers and community level stakeholders (including CHVs, PHOs, CHAs, CHEWs, natural leaders) who are critical for promoting and sustaining sanitation hand hygiene behaviour change.

It will be important to fill critical positions with the community health services, build capacity to undertake and support evidence-based hand hygiene promotion approaches (through rolling out trainings). This will strengthen and professionalise the capacities of front-line workers to promote behaviour change so that community level workers are equipped with interpersonal and community engagement skills and tools to reach all, have motivation through improved training, monitoring and supportive supervision and are sufficiently resourced. Hand hygiene capacity building activities will eventually be integrated into the regular training activities of the county government.

Capacity efforts will also target other stakeholders such as CBOs, school staff, community leaders, private sector as well as health workers. Local entrepreneurs and manufacturers will be trained develop/market affordable, high-quality hand hygiene products and services.

6.4 Set-up county-level responsibilities and accountability mechanisms

Counties will be advised to set-up clear responsibilities for sanitation and hand hygiene plans preparation, implementation and monitoring, where this is needed. This will ensure coordination of the mandates between different water and sanitation departments. The arrangement will follow:

- A **department is designated the sanitation and hand hygiene behavior change and marketing lead**, with the explicit oversight over both rural and urban sanitation/hand hygiene, although this Roadmap only covers rural settings, the boundaries between the two are regularly shifting;
- A **department with specific oversight over sanitation and hand hygiene infrastructure** development; for sanitation, from containment to treatment (this responsibility can also fit within the lead sanitation department); and
- A **county sanitation and hand hygiene coordination body** to review progress towards achieving county objectives and targets; this coordination body will include all relevant departments and will be chaired by the lead sanitation department.

County Stakeholder Forums and committees (for rural sanitation and hygiene) will be formed to bring together the key stakeholders in each county. Such forums will include county health teams, sanitation extenders (where available)[15] or other trained PHOs, county and local administration officials (members, elected officials, Assistant county commissioner, Chief Officers, Governors, Council of Governors), development partners and private sector actors, to encourage joint planning, alignment of policy and practice, sharing of monitoring data, evidence and lessons learned, and coordinated contributions towards the county sanitation and hygiene goals.

15 Sanitation extenders provide support to the county level Monitoring and Evaluation Units at the counties that have a Sanitation Hub.

6.5 Build and sustain demand for sanitation and hand hygiene

6.5.1 Kick-off and roll-out a national sanitation campaign

MOH will spearhead the design and roll-out of a national sanitation campaign to promote sanitation and hand hygiene. This campaign will use different media (billboards, radio shows, social media) to deliver key messages on the benefits of improved sanitation and importance of hand hygiene. Two distinct campaigns may be required: one for sanitation and one for hand hygiene.

As part of this campaign, MOH will carry out events in selected counties to showcase what can be achieved. MOH will select counties to be visited each year and will highlight progress to date in achieving OD and improve sanitation and hand hygiene service levels.

As part of this national campaign, MOH will introduce Prizes to reward sanitation and hand hygiene-related achievements. Prizes will be designed to reward counties that have made significant progress in tackling OD and accelerating access to sanitation. Prizes will also be designed to reward sanitation entrepreneurs and other stakeholders (for example financial service providers, NGOs) that have introduced innovations that helped increase the uptake of services. Such prizes can be delivered on an annual basis, for example on Sanitation Day.

6.5.2 Kick-off and roll-out county-level sanitation and hand hygiene campaigns

County governments will also roll-out campaigns to promote sanitation and hand hygiene. They will also use a range of media that will promote the benefits of sanitation and hand hygiene. These include billboards, radio shows and social media. County governments will showcase the achievements of selected communities to create incentive for change among other communities.

6.5.3 Tailor and implement approaches to tackle OD at community level

CLTS will remain the main approach for tackling OD. When implemented according to guidelines, with sustained visits by CHVs and the implication of local leaders, CLTS has proven to deliver results.

Complementary approaches will be implemented, where CLTS is not proving successful. These approaches are needed to reach communities in challenging contexts (e.g. ASAL, water scarce areas). County PHOs will determine the specific approach in consultation with local leaders and CHVs.

CHVs, with support from sub-county and county-level PHOs will lead sanitation and hand hygiene behaviour change. They will receive training on key messages,

6.5.4 Follow-ups and ODF certification

CHVs, with support from PHOs and local leaders, will ensure follow-ups and that communities are certified when they reach ODF status. This recognition is an important

factor for sustaining sanitation and hygiene behaviour change. Counties will organise ceremonies to recognise communities' ODF achievements. Using CHVs and natural/local leaders could be a less resource intensive monitoring and certification approach.

6.5.5 Work with CHVs and other practitioners trained on demand generation and latrines construction/design

Counties will reach communities via CHVs and other Community Health Workers (CHWs). These will be supported by the county health staff (PHOs) and sub-county structures. These include Community Health Assistants (CHAs) and Community Health Extension Workers (CHEWs) to whom the CHVs report.

CHVs will be the primary providers of interpersonal behaviour change communication on sanitation and handwashing. CHVs will carry out door-to-door visits to households and will work with local leaders to ensure that they also convey messages on sanitation and hand hygiene. CHVs will demonstrate proper handwashing techniques post-triggering and post-ODF. Health centers, nurses and community health workers are another trusted channel of communication on issues to do with hygiene and can reinforce handwashing behaviours.

CHVs will also support sanitation marketing efforts. As communities move up the sanitation ladder, they will need inclusive and durable latrines/toilets. CHVs, trained by PHOs, will engage communities, via trained staff on the different options of sanitation facilities. CHVs will also refer communities to appropriate (certified) masons and artisans for toilet upgrade or full construction.

6.6 Support the supply side of sanitation and hygiene services

6.6.1 Train local entrepreneurs and provide certifications

In line with the above, counties will ensure that there is technical capacity within communities for building (and maintaining) latrines (with cleanable slabs). Local masons and other interested potential service providers will receive training on how to build sanitation facilities meeting MOH standards. Sub-county level workshops will be organised with hands-on training to ensure availability of skills and knowledge among rural communities. As part of this training, local masons and service providers will be provided with sales and communications techniques, as well as pricing, so that they can contribute to the widespread adoption of safe and durable latrines.

Masons, artisans and entrepreneurs that have received this training will receive a certification. This certification will enable them to sell more of their services as it will help build confidence of communities. It will also ensure that the quality of toilets constructed meet the standards required.

Selected sanitation entrepreneurs will also receive extensive business development support. The aim of this support is to build their capacity to operate at scale and offer turnkey solutions to sanitation and hygiene, especially the provision of toilet construction

services combined with materials required. The approach implemented under the FINISH INK FISE initiative (see Annex 4) can provide a model for business development support. Selection criteria will have to be developed to ensure entrepreneurs have basic skills and knowledge of sanitation, as well as business expansion ambitions.

6.6.2 Develop training modules on sanitation

MOH will lead efforts to develop modules on sanitation that can be incorporated in training programmes offered in colleges and training centres. These modules will focus on safely managed sanitation: from safe containment requirements to operating standards for emptying services and FSTPs. These modules can be provided as part of trainings on home construction and improvements. More specialised institutions, such as universities, will also be incentivised to develop their sanitation curriculums.

6.6.3 Facilitate the supply of hand hygiene facilities

With regards to hand hygiene facilities, national and subnational government will lead efforts to make available innovative products where they are needed. Common materials (such as jerry cans as well as tins suspended on a stand) are readily available to make Tippy Taps or leaky tins. However, other types of handwashing stations may be more aspirational and offer social status as well as providing functional benefits, which could contribute to improving hand hygiene behaviours. For example, the Povu Poa ("Cool Foam" in Kiswahili), a foaming soap dispenser with a water tap designed for use in water scarce areas has been trialled by Poverty Action and Catapult Design. Recent innovations also include low-cost, low-flow hand hygiene devices that do not require di¬rect access to a water point (e.g. the Sato Tap and HappyTap). Soap products are already widely available in the market including powdered, bar, toilet, and liquid soaps. The role of government will be to share market data with manufacturers and suppliers to ensure availability of supply once demand has been established.

Whilst the preferred route for making hand hygiene and soap materials available is the private sector, in certain areas, where the private sector is not ready to engage, CHVs and PHOs can act as sales agents so that community members can purchase the products.

6.7 Engage with financial service providers on the supply of finance for sanitation and hand hygiene

6.7.1 Organise a national roundtable on finance for sanitation

MOH, with support from other national stakeholders and CSOs with experience in microfinance for sanitation, will organise a national roundtable on microfinance for sanitation. The meeting will convene representatives from financial institutions, CSOs, development partners and relevant government agencies. This roundtable will take stock of existing experience with financial services for sanitation (and hand hygiene), immediate opportunities of collaboration between the financial and sanitation sectors and existing challenges.

6.7.2 Detail an action plan to increase the supply of finance for sanitation

Following from the round table, an action plan will be drawn to help increase the supply of finance for sanitation. The situation assessment carried out to inform this Roadmap already identified the following potential action points:

- Address financial institutions' liquidity issues and facilitate capital raising for on-lending to sanitation;
- Facilitate the digitalisation of village/traditional saving and credit services to reduce transaction costs on both sides (lender and borrower); the Transactional Ledger developed by FINISH INK can provide a model; and
- Facilitate financial institutions' access to data on potential sanitation improvements' borrowers by developing digital platforms for sanitation market intelligence.

The action plan will allocate responsibilities of each actor for implementing action points.

6.8 Mobilising and allocating financial resources

6.8.1 Develop a national resource mobilisation strategy

One of the first step following from Roadmap validation will be the development of a funding or resource mobilisation strategy. The Roadmap objective and targets can only be achieved if domestic and external resources are mobilised.

The funding strategy will be an action plan to be prepared and implemented by MOH, MoWSI and the Ministry of Education, the main line ministries for this Roadmap. The funding strategy will set out:

- Key messages to convey to head of line ministries to secure internal buy-in for the Roadmap;
- Key messages to convey to the Treasury to make the case for resource allocation for sanitation;
- Project concepts, based on the Roadmap proposed activities and selected counties' needs;
- Kick-off or continuation of small-scale sub-county projects (whilst larger amounts of funds are being mobilised) to showcase know-how and capacity to deliver results;
- Key messages to convey to development partners to garner their support;
- Roles and responsibilities of each line ministry in resource mobilisation;
- Number and nature of convening meetings that need to be organised for resource mobilisation.

Key messages for resource mobilisation will draw on the contents of this Roadmap. They will convey for example, the importance of sanitation and hand hygiene for socio-economic development, and the employment and job creation opportunities of the sector; link with national development plan (Kenya 2030); resource requirements; what will be funded (in broad lines, presenting both hardware and software investment requirements); proposed roles and responsibilities for Roadmap implementation; and role of private sector and CSOs.

In addition to strategizing resource mobilisation, the funding strategy will set orientations on optimum funding and financing approaches to sanitation and hand hygiene. It will flesh-out in particular how to coordinate donor and NGOs' financial support, especially to harmonise funding approaches and amounts to front line health workers.

6.8.2 Advocate for a sanitation budget code at national and county level

Sustainable funding for sanitation and hand hygiene requires that sanitation is given a dedicated budget code at the national level. In the absence of such a code, budgets for sanitation may be allocated to other activities. MOH, with support from CSOs and development partners, will advocate and lobby the Ministry of Finance for the classification of sanitation in the Integrated Financial Management System (IFMIS) public financial system.

Strong advocacy and lobbying are also required so that county governments promote sanitation bills, which set out county duties with regards to the sector. In the absence of such bills, departments of health do not have grounds to budget for sanitation separately from other preventative health activities.

Incentives can also be introduced for counties to pass sanitation bills. In the first instance, national government co-funding for sanitation activities, conditional of a sanitation vote, can provide this incentive. Additionally, the introduction of Prizes to counties for sanitation achievements can stir competition and trigger the adoption of sanitation bills.

6.9 Ensure national oversight over progress towards sanitation and hygiene targets

6.9.1 Steer Roadmap implementation in a coordinated manner

MOH, MoWSI and key ministries will steer the implementation of the Roadmap and will galvanise the political will and commitment behind its implementation at national and county level.

MOH and key ministries will establish a national inter-ministerial coordination body. This body will include representations from all ministries and agencies relevant to sanitation and hand hygiene, including: MoWSI, Ministry of Education, Ministry of Public Service, Youth And Gender Affairs (MPSYGA), MoF and WASREB, among others. Key responsibilities of this coordination body will be to:

- Validate Roadmap operational plan and make amendments where necessary;
- Allocate responsibilities for Roadmap implementation;
- Organise an advocacy and resource mobilisation plan for Roadmap implementation;
- Prioritise interventions and investments based on county-level plans to propose project concepts for submission to government and development partners;
- Oversee Roadmap implementation results and make recommendations for change in course of actions where necessary;

- Communicate periodically to external partners and other relevant working groups (e.g. Kenya Water and Sanitation Civil Society Network or KEWASNET) on Roadmap results, implementation challenges and successes; this may require the setting-up of periodic government-development partner and government-civil society dialogues; and
- Communicate to media on Roadmap objective and progress towards targets.

6.9.2 Set-up sector review meetings

Regular sector meetings will be organised to present progress and take stock of challenges, innovative approaches and collaboration opportunities. MOH and national agencies, via the inter-ministerial coordination body, will organise two types of review meetings:

- Roadmap coordination body with development partners review meetings; and
- Roadmap coordination body with CSOs review meetings: this can be carried out as part of the TWGs for Sanitation Promotion and Hygiene Promotion.

There are benefits of holding these meetings separately, especially to allow more technical discussions to take place with CSOs.

6.9.3 Monitor progress via MIS and periodic reporting

Progress towards Roadmap objective and targets will be monitored through the forthcoming Real Time MIS (RTMIS)[16] system. This new system builds on the CLTS Monitoring System, which was developed primarily to support offline / online data entry at the lowest administrative unit level and to improve reporting along multiple gateways through simple visual elements. To date, 81,015 villages have been registered in the system with their ODF status (triggered, claimed, unclaimed, verified and certified). The system collects data from all the 47 counties.

The proposed RTMIS will track progress in moving up the sanitation ladder, in addition to ODF status. It will integrate indicators to track progress related to the sanitation grading system in line with the Rural Sanitation Protocol. It will allow for both qualitative and quantitative data entry provisions at county and national level, facilitate data analysis and the generation of reports as per sector needs. The RT-MIS platform is also being expanded to include hand hygiene status.

6.9.4 Report on Roadmap implementation

The Roadmap coordination body will set responsibilities for reporting progress. Reporting will be carried out at least on an annual basis, based on the proposed results indicators of the Roadmap and according to the work plan. This annual reporting will be used to inform annual reviews of the Roadmap implementation and communications to partners on achievements and successes.

16 http://wash.health.go.ke/clts/index.jsp

7 Responsibilities for Roadmap Implementation

7.1 National government

7.1.1 MOH (in collaboration with MoWI)

MOH will lead on the implementation and monitoring of the Roadmap, in close coordination with MoWSI and Ministry of Education. MOH, MoWSI and Ministry of Education will jointly implement the following activities:

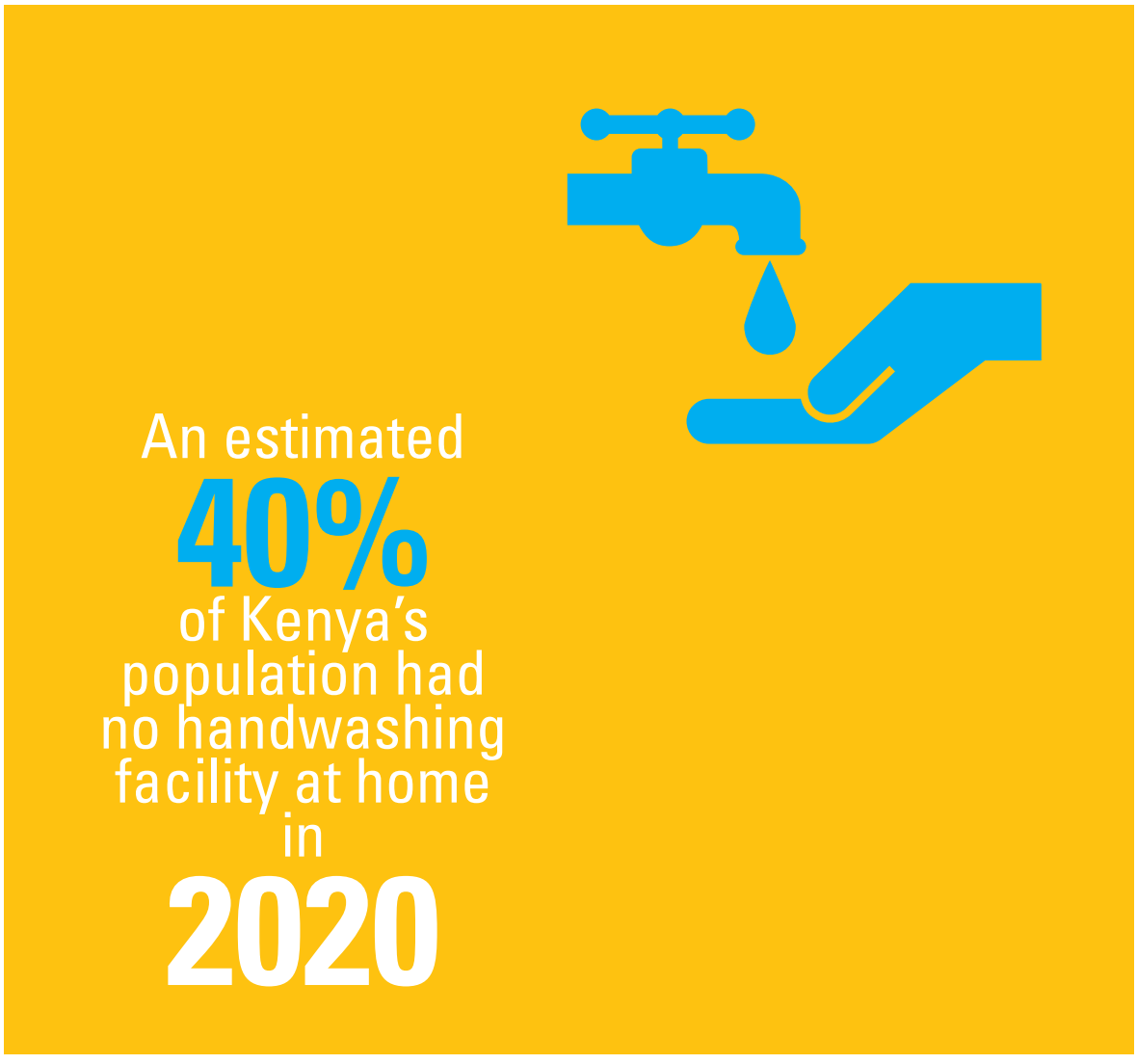
- Allocate specific tasks and milestones to the national sanitation coordinating body for Roadmap implementation oversight and facilitation;
- Disseminate the Roadmap objective and targets to national stakeholders, including development partners, county governments, CSOs and other key stakeholders (e.g. private sector, financial service providers);
- Organise roundtables with Ministry of Finance and development partners in order to mobilise funds for Roadmap implementation;
- Assist in the preparation of countywide sanitation and hygiene plans and check plans quality;
- Prepare or update all relevant guidance documents:
  - » Behaviour change communications in challenging contexts;
  - » Technical options for sanitation and hand hygiene and related standards for health and environmental benefits;
  - » Approach to emptying and treatment services in small towns;
  - » Subsidy framework for guiding county governments;
- Develop projects concepts to improve access to rural sanitation and hand hygiene based on the prioritisation of county needs and technical feasibility (for example, rural sanitation and hygiene projects may need to coordinate with water services development so as to ensure targeted areas have access to water to enable hygienic practice);
- Fund national behaviour change campaigns to promote sanitation and hygiene;
- Channel financial resources to eligible counties for implementing their county-wide sanitation and hygiene plans;
- Procure the construction of sanitation and hygiene facilities in healthcare facilities;

- Develop of project concept for enhancing masonry curriculums in relevant schools to develop skills for the construction and upgrade of toilets so that they meet MOH standards of health and environmental safety; and
- Monitor Roadmap implementation and share results.

7.1.2 Ministry of Education

The Ministry of Education will contribute to resource mobilisation efforts for the purpose of funding sanitation and hygiene facilities in schools. Additional activities include:

- Identify priority schools for constructing or upgrading sanitation and hygiene facilities;
- Develop project concepts, which include:
  - » Targeted schools and construction/upgrading costs;
  - » Sanitation and hygiene behaviour change campaigns to be rolled-out in schools;
  - » Disseminate guidance on school sanitation and hand hygiene facilities' maintenance; and
- Monitor Roadmap implementation and share results.



7.2 County governments

County governments will have the following responsibilities:

- Set-up county-level coordinating body to oversee Roadmap implementation at county level;
- Allocate responsibilities among county departments for Roadmap implementation;
- Develop county-wide sanitation and hygiene plans;
- Allocate resources for plans implementation and mobilise additional resources if needed from national government and development partners;
- Lead county level behaviour change communications (including CLTS) in targeted communities;
- Lead on sanitation marketing development;
- Coordinate with sub-county administrations the implementation of the Roadmap: prioritise communities, train public health officials on MOH guidelines for behaviour change campaigns; prioritise healthcare facilities where sanitation and hygiene facilities are needed;
- Certify ODF communities and monitor status;
- Identify service providers eligible to receive training and other forms of support; and
- Report on county progress towards county targets for rural sanitation and hygiene using the RT MIS system and through periodic reports.

7.3 Development partners

Development partners will play a key role in Roadmap implementation. They will support resource mobilisation efforts and advocacy for prioritising sanitation. Development partners will also be expected to align with the Roadmap orientations and contribute to the achievement of its objective and targets.

7.4 CSOs

CSOs bring a wealth of experience and innovative approach to tackling sanitation and hygiene challenges and will be key implementing partners for this Roadmap. They will be consulted to further define MOH and government agencies' actions, will provide technical inputs and will be called upon to carry out some critical activities. These include: capacity building at county level, capacity building of sanitation entrepreneurs and engagement with financial institutions, among others.

8 Roadmap Implementation Costs

8.1 Methodology

This section presents the cost estimates of achieving the Roadmap objective and underlying targets. It presents, in line with Roadmap targets and proposed activities:

1. The costs of developing household sanitation services in rural areas; and
2. The costs of developing household hygiene services in rural areas.

In addition to the costs of developing services, the Roadmap includes the costs of planning and coordination. Due to data constraints, sanitation and hygiene in rural schools and health care facilities could not be included.

A yearly inflation rate of 5.4% has been applied to all costs (World Bank, 2021). A typical household size is estimated to be 5 people (as per the 2019 Census).

8.1.1 Sanitation costs

The costs presented below take into account capital investments, including the demand generation activities, supply side strengthening and infrastructure costs. With regards to infrastructure costs, this Roadmap presents the costs of developing containment solutions only, recognising that some small towns or more density populated rural areas require associated services, i.e. emptying and treatment services, which also require capital. A major assumption is that all infrastructure developed in rural areas up to 2030 will be non-sewered technologies. The costs presented below are therefore *minimum* capital costs of achieving sanitation and hygiene objectives. In addition to capital costs, the figures below take into account institutional support costs related to implementing capacity building and sector strengthening activities.

The national costing was carried out using a bottom-up of approach based on counties' situation as follows:

- County-level baseline data provided by the 2019 census (for sanitation) and the KIHBS (for hygiene): for each county, the baseline established the proportion of the counties' rural population belonging to each grade sanitation category (G0, G1, G2 or G3) as per the National Sanitation Protocol;
- Population projections were made using a 2.3% population growth (as per the 2019 Census), assuming all counties experience the same rate of population growth;
- Population projections from grade to grade were produced assuming a constant annual OD decrease and a constant annual sanitation improvement rate for each county, with the following objectives:
  - » 100% of population in counties with high OD (category 1) achieving ODF by 2030, therefore moving to G1; for each county with OD, an estimate was made of the number of village to be "triggered" based on the % of population practicing OD and an estimated number of rural villages/communities in the county;
  - » 100% of population in low to medium OD rate counties (categories 2 and 3) achieving ODF by 2027;
  - » 80% of the population in all counties accessing G2 (assuming that all would have been in G1 environments already); and
  - » 10% of the population in all counties accessing G3 (assuming that all would have been in G2 environments already).

The following costs were taken into account for costing the achievement of G1, G2 and G3-level sanitation containment improvements (including superstructure):

- Cost of G1: Triggering/demand generation; certification; monitoring; follow-up; and training material and meetings and toilet construction (according to the National Sanitation Protocol, G1 containment are flyproof and clean shared toilets);
- Cost of G2: Demand creation; monitoring; certification; and toilet construction (according to the National Sanitation Protocol, G2 containment are durable individual toilets with safe containment);
- Cost of G3: Monitoring and certification (the assumption being that only those on G2 can access G3 sanitation, which is about the availability of associated transport and treatment services; these are not costed in the Roadmap).

Unit costs were sourced from projects implemented in Kenya. Where different projects incurred a wide a range of unit costs, an average was estimated. As presented in Table 8 below, ODF-related costs were also differentiated based on counties conditions such as climate, density and level of OD (Assuming that counties with high OD (category 1) and low population densities in arid and semi-arid climates will require a larger budget as a result of these conditions).

Table 10: Unit costs of reaching ODF per village

County conditions	Cost item					Total
	Triggering	Verification	Certification	Monitoring	Follow-up	
ASAL, low density, High OD rate counties (categories 1)	15,000	10,000	7,500	5,000	12,500	50,000
ASAL, medium to high density, low to medium OD rate counties (categories 2 and 3)	13,500	9,000	6,750	4,500	11,250	45,000
Non-ASAL, low to medium density, High to medium OD rate counties (categories 1 and 2)	12,000	8,000	6,000	4,000	10,000	40,000

G2 sanitation unit cost is estimated to be between KHS 25,000 and 30,000

In terms of hardware cost, G1 sanitation units were estimated to cost between KHS 10,000 and 12,000, depending on county conditions (as listed above). The cost of a G2 sanitation unit is estimated to be between KHS 25,000 and 30,000, depending on the county's condition. Due to lack of data, G3 costing costs related to conveyance and treatment services, which are part of the G3 environments. G3 costs, as presented in this Roadmap, are "minimum costs".

In addition to infrastructure, the costing also took into account the yearly cost of engagement with populations on upgrading their toilet facilities, engagement with suppliers as well as training and coordination meetings. This cost was estimated to be 10% of the county's annual hardware costs and was calculated for each grade.

8.1.2 Hygiene costs

With regards to hygiene costs, the main assumption, applied to all counties' population was that 100% will be having a handwashing facility with soap in their times by 2030. Based on a constant annual decrease rate for each county, the Roadmap estimated population for which a basic hand washing facility needs to be constructed every year. In addition, to the costs of the facilities themselves, the costing took into account hygiene promotion costs. Table 9 provides an overview of the associated costs, which were calculated using the UNICEF hygiene costing tool.

Table 11: Hand hygiene unit costs

Item	Cost in KSH/HH
Household promotion	3,135
Hand hygiene facilities	1,751
Soap (per year)	2,162
Total	**7,048**

8.2 Overall cost

The estimated cost of achieving the Roadmap objective and targets is **KHS 256 billion** or **US$ 2.23 billion**.

As presented in Table 12 below:

- The cost of achieving **G1-level containment** (eradicating open defecation, with the construction of 388,342 new flyproof and clean shared toilets) will be **KHS 6.93 billion** (US$ 60.60 million), including KHS 5.83 billion (US$ 50.99 million) for toilet construction;
- The cost of achieving **G2-level containment** (with the construction of 4,870,658 new durable individual toilets with safe containment) will be **KHS 194.18 billion** (US$ 1.69 billion), the bulk of which for toilet construction;
- The cost of achieving **G3-level sanitation** (safely managed) will be **KHS 126 million** (US$ 1.1 million), for monitoring and certification only; and
- The cost of achieving **basic hand hygiene** for all is **KHS 54.32 billion** (US$ 474.74 million).

Table 12: Costs estimates of Roadmap implementation (household sanitation and hand hygiene)

		2023	2024	2025	2026	2027	2028	2029	2030	Total in KSH
Cost of G1-level containment	Triggering	15,895,964	17,596,576	19,465,994	21,520,223	17,176,264	18,977,703	20,955,888	23,127,450	154,716,061
	Verification	10,597,309	11731,050	12,977,329	14,346,815	11,450,842	12,651,802	13,970,592	15,418,300	103,144,040
	Certification	7,947,982	8,798,288	9,732,997	10,760,111	8,588,132	9,488,851	10,477,944	11,563,725	77,358,030
	Monitoring	5,298,655	5,865,525	6,488,665	7,173,408	5,725,412	6,325,901	6,985,296	7,709,150	51,572,020
	Follow-up	13,246,637	14,663,813	16,221,661	17,933,519	14,313,553	15,814,752	17,463,240	19,272,875	128,930,051
	Trainings, Materials and Meetings	59105725	65,432,487	72,387,452	80,030,194	65,663,105	72,547,320	80,106,857	88,405,249	583,678,388
	Toilet construction	591,057,246	654,324,870	723874525	800,301,935	656,139,267	724,954,863	800,522,239	883,476,663	5,834,651,609
	Total Cost G1-level	703,149,516	778,412,609	86,1148,632	952,066,205	779,056,585	860,761,192	950,482,056	1,048,973,413	**6,934,050,199**
Cost of G2-level containment	Toilet construction	15,091,302,774	16,718,152,479	18,507,192,038	20,473,842,300	22,634,944,338	25,008,887,284	27,615,747,476	30,477,439,908	176,527,508,596
	Trainings, Materials and Meetings	1,509,130,277	1,671,815,248	1,850,719,204	2,047,384,230	2,263,494,434	2,500,888,728	2,761,574,748	3,047,743,991	17,652,750,860
	Total Cost G2-level	16,600,433,051	18,389,967,727	20,357,911,242	22,521,226,530	24,898,438,772	27,509,776,012	30,377,322,223	33,525,183,898	**194,180,259,456**
	Trainings, Materials and Meetings	6,399,217	8,440,660	10,762,381	13,3957,43	16,375,298	19,739,100	23,529,036	27,791,197	126,432,632
	Total Cost G3-level	6,399,217	8,440,660	10,762,381	13,395,743	16,375,298	19,739,100	23,529,063	27,791,197	**126,432,632**
Cost Hygiene	**Total Cost Hygiene**	4,643,623,549	5,144,208,403	5,694,699,394	6,299,841,549	6,964,816,897	7,695,283,811	8,497,419,819	9,377,968,210	**54,317,861,631**
National level coordination		271,133	285,774	301,206	317,471	334,614	352,683	371,728	391,802	**2,626,411**
Guidelines development		5,648,600								**5,648,600**
County sanitation plans		101,674,800								**101,674,800**
National campaign for sanitation and hand hygiene		40,000,000	42,160,000	44,436,640	46,836,219	49,365,374	52,031,105	54,840,784	57,802,187	**387,472,308**
Total (annual) KSH		**22,101,199,866**	**24,363,475,173**	**26,969,259,486**	**29,833,683,716**	**32,708,387,540**	**36,137,943,903**	**39,903,956,647**	**44,038,110,706**	**256,056,026,037**
Total (annual) US$		**193,164,487**	**212,936,773**	**235,711,328**	**260,746,396**	**285,871,307**	**315,845,630**	**348,760,660**	**384,893,088**	
Total (cummulative) KSH			**46,464,675,039**	**73,433,934,525**	**103,267,618,241**	**135,976,005,781**	**172,113,949,684**	**212,017,915,331**	**256,056,026,037**	
Total (cummulative) US$			**406,101,259.84**	**641,812,587.75**	**902,558,983.43**	**1,188,430,290.53**	**1,504,275,920.24**	**1,853,063,579.99**	**2,237,929,667.57**	

9 Risks and Mitigation Measures

The following table identifies risks that could limit Roadmap implementation and mitigation measures.

Risks	Probability	Mitigating measures
Lack of funding for Roadmap implementation	Very high	Intensify resource mobilisation efforts from the outset of Roadmap adoption by making a strong case for sanitation investments
		Conduct joint resource mobilisation activity planning and implementation
		Identify project concepts for submission to Treasury and development partners
		Start implementation, even at small-scale to showcase how the Roadmap will be implemented
		Regularly hold review meetings with development partners to present progress om Roadmap implementation
		Advocate for an increase in county and national budget allocations
		Advocate for sanitation and hygiene budget codes
		Promote the preparation and review of countywide plans
		Incentivise households' financial contribution to sanitation investments through marketing and facilitating access to finance
		Set-up a national inter-ministerial coordination body representatives of all government institutions involved to show a unified front as well as leadership

Risks	Probability	Mitigating measures
Limited county-level capacity to implement the Roadmap	High	Intensify training of local PHOs
		Provide hands-on technical assistance to selected counties with regular review meetings
		Implement the Roadmap in phases, beginning with counties that have more advanced experience with sanitation activities
Slow adoption of the recommended sanitation and hygiene practices/ behaviours	Medium	Train and engage with community leaders and CHVs to convey key messages and carry out behaviour change and marketing
		Conduct national and local sanitation and hand hygiene campaigns to galvanise public participation
Failure by counties to prioritise sanitation and hygiene generally	High	Introduce incentives in the form of Prizes (recognition and financial reward) for sanitation and hygiene achievements and other form of co-funding
Increased costs of hardware material, limiting households' capacity to pay	High	Focus on training larger sanitation entrepreneurs able to stock material and hardware in bulk and sell their services at a lesser cost due to economies of scale
Weather hazards causing damages to sanitation and hand hygiene facilities	Medium	Ensuring that norms and guidelines are in place for sanitation and hand hygiene facilities for resilient services

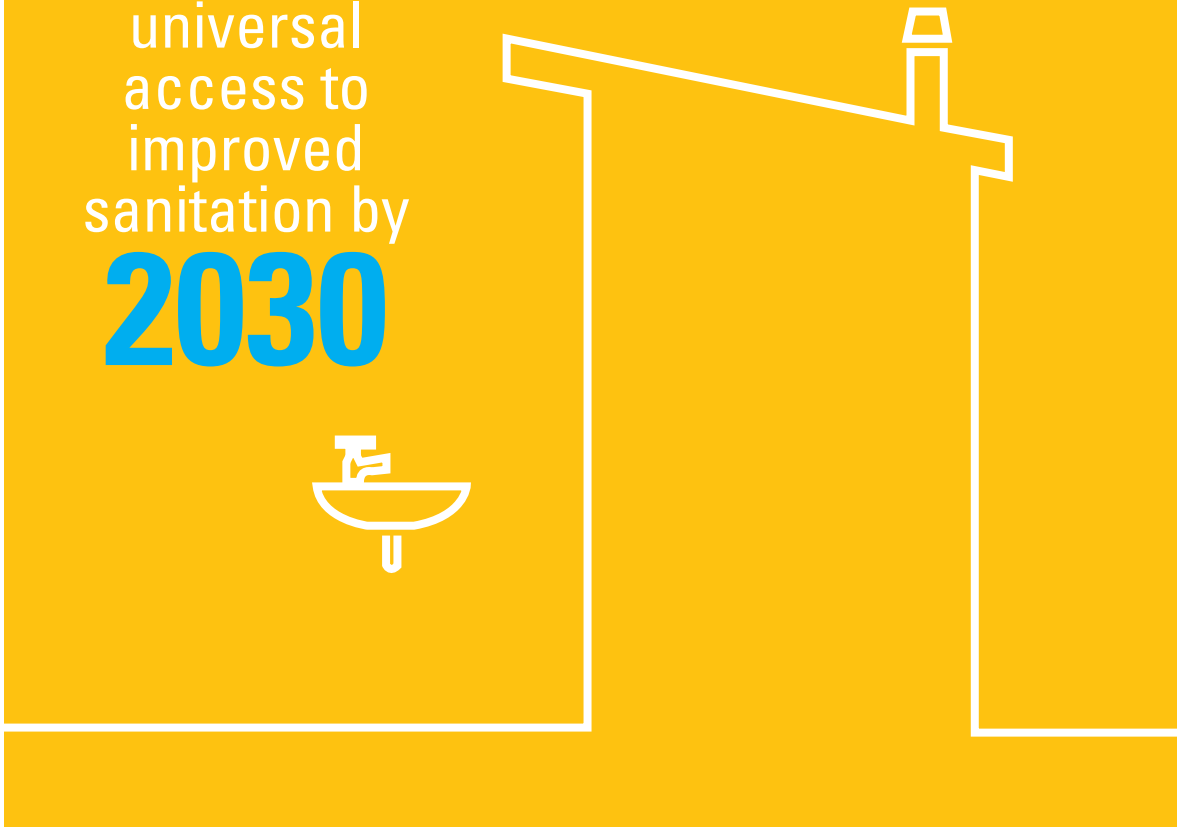
10 Operation Plan

The following table proposes an operational plan for implementing the Roadmap, with an indicative timeline of activities to be carried out. This operational plan will be updated by MoH and implementing partners as soon as Roadmap implementation is launched and will be used to prepare annual implementation plans.

Outcomes	Activities	Responsibility		2023	2024	2025	2026	2027	2028	2029	2030
		Core	Support								
Outcome 1	Construction of sanitation facilities	Households	CG, CSOs								
Outcome 2	Installation of hand hygiene stations	Households	CG, CSOs								
Outcome 3	Prioritisation of school facilities based on sanitation & hygiene plans	MoE	MoH, MoWSI, CG								
	Procurement and construction of sanitation & hygiene facilities	MoE	MoH, MoWSI, CG								
	Monitoring of sanitation & hygiene facilities in schools	MoE	MoH, MoWSI, CG								
Outcome 4	Prioritisation of healthcare facilities based on sanitation & hygiene plans	MoE	MoWSI								
	Procurement and construction of sanitation & hygiene facilities	MoE	MoWSI								
	Monitoring of sanitation & hygiene facilities in healthcare facilities	MoE	MoWSI								
Outcome 5	Roadmap dissemination	MoH	MoWSI, MoE								
	Development of guidance on country-wide sanitation & hygiene plan	MoH	MoWSI, MoE								
	Development of additional guidance documents for CG	MoH	MoWSI, MoE								
	Development of guidance on country-wide sanitation and hand hygiene plan	CG	MoH, MoWSI, CG								
	Build capacity at county level for plans design and implementation	MoH	MoWSI, MoE								
	Set-up county level responsibilities	CG	MoH, MoWSI, CG								
Outcome 6	Kick-off and roll-out national and county level sanitation and hand hygiene campaigns	CG	MoH								
	Implement adapted behaviour change and sanitation marketing activities	CG	MoH								
Outcome 7	Train local masons/ entrepreneurs and provide certifications	CG	MoWSI								
	Provide targeted business development support to select entrepreneurs	CG	CSOs, MoH, MoWSI								
	Develop training modules on sanitation	MoH, MoWSI	CSOs, Universities								
	Facilitate the supply of hand hygiene facilities	MoH	CG								

Outcomes	Activities	Responsibility		2023	2024	2025	2026	2027	2028	2029	2030
		Core	Support								
Outcome 8	National roundtable on finance for sanitation	MoH	CSOs, MoWSI								
	Action plan ready to help increase supply of finance	MoH	CSOs, MoWSI								
Outcome 9	Development of national resource mobilisation strategy	MoH	MWS, MoE, MoF								
	Advocacy for national budget code for sanitisation	MoH, MWS	MoF								
	Adviocacy for sanitation votes at county level	CG	MoH, MWS								
Outcome 10	Set-up of national level roadmap implementation coordination body with tasks and milestone	MoH	MWS, MoE, MoF								
	National sector review meetings	MoH, MoWSI	MoE, MoF, CSOs								
	Set-up of county level coordination body for plans development and implementation	CG	MoH								
	Reporting on county progress towards target	MoH, MoWSI	MoE, MoF								
	Reporting on national progress towards objective and target	MoH, MoWSI	MoE, MoF								

Achieve universal access to improved sanitation by **2030**



ANNEX 1: WHAT LESSONS FROM PAST AND ONGOING EXPERIENCE?

This section takes lessons from Kenya's past and ongoing experience with implementing approaches to tackle rural sanitation and hygiene. It first looks at the results of the KESHF, which was designed to provide the overall framework for the sector. Lessons from selected projects implemented in Kenya are then extracted to identify good practice and bottlenecks that need to be lifted. Finally, the section puts forward key messages formulated by county governments during the consultation process for this roadmap.

Kenya Environmental Sanitation and Hygiene Strategic Framework

The Kenya Environmental Sanitation and Hygiene Strategic Framework (KESSF) 2016–2020 was a comprehensive and detailed plan developed to implement the KESHP. KESSF was intended to help achieve an ODF Kenya by 2020, with at least 50% of all areas having access to improved sanitation. The framework encompasses both urban and rural sanitation, as well as hand hygiene. It provided orientations at eight strategic levels: from scaling-up access to improved sanitation (one that provides adequate health protection to users) to solid waste and faecal/wastewater management, institutional, regulatory and financing arrangements and boosting private sector participation.

KESSF proposed a very detailed implementation framework with recommendations on optimum institutional and organisational arrangements for effective change in the sanitation sector. KESSF proposals also rested on the adoption of a strong legal framework for sanitation, particularly the establishment of a National Environmental Sanitation Coordination and Regulatory Authority for the formulation of regulations and standards on sanitation and hygiene as well as enforcement.

In terms of demand generation, KESSF proposed CLTS implementation, sanitation marketing as well as the provision of minimal subsidies for the vulnerable. It recognised the important role of community and sub-county health officials and volunteers, but also the need for adequate incentives for performance in generating demand, especially in terms of remuneration and other rewards. Finally, KESSF put an emphasis on capacity building, in terms of human resource requirements, knowledge and skills at all organisational and institutional levels.

Despite initial traction, KESSF did not deliver expected results. There hasn't been any rigorous evaluation of the KESSF implementation, but Kenya still some way in declaring all counties ODF and extending hygienic sanitation for all – as well as hand hygiene.

Resource mobilisation following KESSF was a particular challenge. KESSF recommended that an investment plan and a resource mobilisation strategy are formulated shortly after its adoption. None of these initiatives were implemented. KESSF and associated documents (such as the 2020 ODF plan) were developed with support from the World Bank Water and Sanitation Program (WSP), which support was instrumental for putting non-sewered sanitation under the spotlight at a time when sanitation, especially non-sewered,

barely featured in government action. In a bid to support the government of Kenya in this area, WSP also supported the formulation of the national policy in 2016. However, 2016 also coincided with the end of the World Bank WSP and the Bank strong advocacy support for non-sewered sanitation. MOH, the key focal institution for non-sewered sanitation, did not succeed in leveraging the large-scale support required to implement KESSF, either from within MOH or from external partners. The success of KESSF relied on strong leadership from central government, provision of incentives for all actors, coordination capacities as well as capacity building, all of which requiring adequate resources.

Lack of funds, particularly for MOH to lead on the KESSF, was compounded by very limited human resources. KESSF already recognised the acute shortage of "qualified and competent" human resources at all levels of the health sector with the unavailability of adequate, technically competent and skilled personnel in relation to sanitation and hand hygiene. Yet, progress achieved in some counties that have been declared OD since 2016 indicates that health staff can help achieve results, where they are committed and capacitated .

Although limited in scope, KESSF made significant contributions to the sector. These include mainstreaming sanitation and hand hygiene behaviour change efforts among front line health workers (CHVs and PHOs), community leaders (village chiefs), elected representatives and NGOs/CSOs. KESSF also helped integrate into the sanitation sector the notion of sanitation marketing as a means to trigger demand for improved sanitation products and services. Sanitation marketing is widely recognised in Kenya as a cornerstone of achievements in durable sanitation.

In summary, the take-aways from KESSF are as follows:

- **Without resource mobilisation, both at national and local level, the Roadmap is unlikely to deliver all expected results;** significant efforts have to be deployed in the first months of Roadmap adoption to make the case for government and external agencies investment in the Roadmap implementation;
- **There is a key role to play for MOH and MoWSI in resource mobilisation:** MOH and MoWSI, together with Ministry of Education (in charge of school sanitation) should join efforts to develop an operational funding strategy of the Roadmap, with an action plan on : (i) key meetings (with Ministry of Finance, other relevant ministries or agencies, financial sector, external partners and NGOs) to be held, (ii) key messages to be delivered during these meetings, (iii) drafting the strategy which will show how Roadmap costs should be covered (see section 6.7.1 on funding and financing strategy);
- **Key development partners are critical for resource mobilisation:** with sanitation falling under a division of the MOH and no clear home within the MoWSI, it remains a sector for which strong advocacy and lobbying is needed for funding mobilisation. Development partners involved in sanitation can support these advocacy efforts within development partners' fora during which they can raise the profile of sanitation and attract funding. They can also support and assist MOH in dialogues with the government and formulating the funding strategy. The present Roadmap provides a basis for these engagements.

The Selling Sanitation programme

Selling Sanitation was an ambitious programme led by the World Bank and IFC. It aimed to develop the markets for affordable sanitation products that could make a difference in terms of cleanliness, safety and attractiveness for poor rural households. Launched in 2013, the initiative aimed to facilitate the design and roll-out at scale of affordable plastic slabs, manufactured locally in Kenya. World Bank and IFC partnered SilAfrica to design the plastic slabs that were priced at US$ 16 each.

Despite great efforts put in the product design, plastic slabs did not sell widely. Research undertaken in Busia and Nyeri counties confirmed that household demand for the plastic latrine slabs was too low to support commercial distribution. Despite the investments made in plastic latrine slab development and marketing interventions, including the improved sanitation campaign, the plastic slabs have not experienced the market growth predicted.[17] Primary barriers identified were:

- **Insufficient marketing activities:** few households were exposed to the slab product (via sales agents or market places);
- **Low demand for the slab product at the specified sales price:** households were not willing to pay the US$ 16 price, which represents 30–60% of Kenya's median monthly income monthly (estimated to be US$66 in 2015);
- **Lack of incentives for stakeholders (manufacturers or distributors) for accelerating sales:** sales representatives were provided neither with compensation, slab samples, nor follow-up support. Similarly, stakeholders had minimal incentives to simplify distribution channels, resulting in complicated purchasing options for households.

The research concluded that such barriers raise questions about the viability of charging unsubsidised prices for preventive health products. The roll-out of these products face the additional last-mile challenge of serving poor consumers in remote, rural settings. The research recommendation is to better align sanitation product prices with consumer willingness to pay (i.e. what they think they can afford). The challenge was not in communication campaigns on the importance of improved sanitation, which rural households were exposed to. Rather, future programmes needed to address:

- Providing incentives for stakeholders to show and sell the product;
- Ensuring the product is available for purchase (i.e. overcoming distribution channels issues); and
- Lowering the costs of slabs through partial subsidies.

The research did not exclude that other products, rather than a plastic slab, may be more attractive to rural households.

17 (Peletz, et al., 2019)

GoK-UNICEF-LIXIL Partnership

In 2016, UNICEF entered into a partnership with LIXIL, a global sanitary product designer, for the roll-out of SATO pans. These user interface pans come in different designs (including squat pans and sit stools) and can be connected to septic tank, pit latrines and adapted to connect to a sewer system. The main benefits of the model are automatic closure of preventing odours, ease of cleanliness and ease of instalment.

As of 2021, the partnership, so-called "Make a Splash!" (MAS), reported 53,823 SATO products bought and installed in three counties, with 269,920 people gaining access to basic sanitation. Most SATO pans purchased have been fitted over an existing pit latrine, providing, in principle, with a more cleanable slab. MAS entered in Phase 2 in 2022 with the target to enable more than 10,500 households acquiring SATO products.

The roll-out of the products is based on county plans for sanitation and the deployment of counties' public health force. UNICEF supports counties identify activities and targets to be achieved. Once plans are in place, UNICEF facilitates PHOs capacity building for behaviour change communications (for both sanitation and hand hygiene), marketing techniques and fitting the SATO products. UNICEF also provides financial resources to support activities' implementation. PHOs themselves train CHVs on communications/marketing techniques and local masons on fitting SATO products. CHVs engage with communities on the benefits of the products and provide information on SATO pan products suppliers and trained masons. LIXIL's responsibility in the partnership is to ensure the availability of SATO products in areas targeted by PHOs and CHVs.

As of 2022, the SATO recommended retail price was KHS 765 (US$ 6.6). With households also needing to purchase cement and pay for installation, the total cost of instalment reached around KHS 1,000-1,200 (US$ 8.7-10.4). These costs exclude any excavation costs (for those without a prior pit), lining and superstructure. When installed, masons report to PHOs toilets upgraded. PHOs oversee these upgrades and carry out checks on their quality.

Some key lessons on the successful roll-out of the SATO products include:

- **Strong CHVs engagement in behaviour change activities,** with support from PHOs: CHVs are normally reputable people within the village community and inspire trust; making them aware and engaged in sanitation marketing can drive the uptake of sanitation as they carry out routine door-to-door activities for health-related matters;
- **Active participation of artisans/masons for generating demand for their services**;
- **Good relationship between CHVs and artisans/masons**, with CHVs referring artisans to potential customers;
- **Use of media** at county level to promote SATO products installation, including social media, radio spots, and wall branding; and
- **Adequately resourcing** all the above activities.

Challenges have also emerged during the roll-out:

- **Acquisition of multiple hardware elements**, including the SATO product and cement, make it cumbersome for households to make the purchase;
- **High costs of toilet construction**, for those needing complete rehabilitation or starting from scratch; these costs can vary between KHS 10,000 and KHS 40,000 + depending on the quality of the toilet;
- **Supply chain:** last mile distribution can be a challenge for LIXIL; and
- **Limited retailers** in some sub-counties, resulting in higher costs and accessibility issues.[18]

UNICEF and MOH are addressing these challenges, particularly working on facilitating access to finance. UNICEF has partnered with FINISH (see Annex 4) to explore and implement different savings and credit-based approaches to households' investments in sanitation. As part of the partnership, UNICEF/MOH are building the capacity of enterprises (masons/artisans) to operate at a larger scale and to offer both products and services to facilitate household purchase. This workstream also involves facilitating access to finance for these enterprises so that they are better able to meet demand for their services.

Sustainable Sanitation and Hygiene for All (SSH4A)

Sustainable Sanitation and Hygiene for All (SSH4A) was implemented by SNV between 2016-2019. Focusing on sustainable access to improved sanitation and hygiene in rural areas, SSH4A combined work on demand creation, sanitation supply chains, hygiene behavioural change communication and governance. The goal was to stimulate enterprises to offer affordable toilets, encouraging communities to maintain safe sanitation and hygiene practices and supporting counties to achieve area-wide safe sanitation. SSH4A was implemented in four counties, Homabay, Kericho, Elgeyo Marakwet and Kilifi, with support from a UK-DFID results-based grant.

The programme enabled over 214,000 people access safe sanitation and hygiene. It contributed to increase access rates in targeted counties from 48% to 74% according to the programme baseline and endline. It promoted the participation of community members, clan elders and village elders, in driving sanitation and hygiene behaviour change, together with trained sanitation promoters. In total, more than 555 promoters were involved in the programme, reaching more than 2,344 villages. CLTS and marketing techniques were used for demand creation, while artisans were engaged in the production and sale of latrines and handwashing options. SSH4A was implemented in 11 sub-counties in Kenya, with approximately 816,934 people living in the programme areas.

Some key lessons from SSH4A implementation are as follows:

- **Community engagement, including via local leaders, helped achieve results:** in all programme counties, staffing in the public health departments was low; the door-to-door approach, which is considered the most effective was made possible due to community involvement;

18 (UNICEF, 2022).

- **Strategies for promoting handwashing with soap should be based on household practice:** communities have different cultures when it comes to location of handwashing stations and storage of soap;
- **Demand for improved latrine options and handwashing facilities is high:** SSH4A results indicates strong household demand for improved sanitation, including the resource poor;
- **Results-based finance can help focus on results:** given limited budgets for sanitation, results-based finance can strengthen the effectiveness budget expenditure in achieving results; and
- **Evidence can attract political support:** SSH4A results programme supported sub-counties to develop sanitation investment plans which were used to lobby for increased resource allocation to sanitation.

Lessons from FINISH-INK: a credit-based approach

A number of projects have tested a credit-based approach to facilitate the acceleration of uptake in quality sanitation services. In Kenya, the most notable experiences are those implemented by Water.org, a US-based NGO which specialises in supporting financial institutions develop sanitation (and water) portfolios. To date, Water.org has facilitated more than US$65 million in lending capital for sanitation in Kenya.[19] Another initiative is led by the Dutch-based NGO WASTE: the Financial Inclusion Improves Sanitation and Health in Kenya (FINISH-INK) programme, implemented in partnership with the international NGO Amref Health Africa in Kenya. UNICEF and MOH have partnered the programme to accelerate the delivery of better quality toilets to households in selected counties.

FINISH-INK started operations in 2013. By 2019, it had enabled the sale of 40,000 toilets in Busia and Kilifi counties. Toilets provided under the programme are durable: all toilets have concrete slabs, at least lined pits and solid superstructures, with at least half equipped with more expensive pour-flush toilets with offset pits or septic tanks (85% purchased using toilet loans). Toilet prices vary from KES 12,000 for a single pit VIP toilet, up to KES 70,000 for a pour-flush toilet with a septic tank. The FINISH-INK programme has managed to sell toilets to around 8% of the households in Busia and Kilifi, but the high prices mean that these toilets are largely purchased by better off households.

The FINISH-INK approach involves the development of both demand and supply sides. It collaborates with county governments (PHOs and CHVs) for delivering sanitation marketing and builds the capacity of artisans both on technical aspects of sanitation and business skills and management.

At the same time, the initiative facilitates access to financial services for (i) households looking to invest but who may not have the whole upfront capital and (ii) for sanitation entrepreneurs looking to boost their activities. FINISH-INK works both with mainstream financial institutions as well as village-level organisations, especially where formal financial institutions are not yet ready to enter. On the one hand, FINISH INK

19 (Aguaconsult, 2019)

channels sector data to financial institutions so that they are able to develop appropriate financial products for households and entrepreneurs. On the other hand, the initiative builds capacity of entrepreneurs so that they are in a position to attract commercial finance. FINISH has developed a specific initiative to support sanitation entrepreneurs, the Financial Inclusion for Sanitation Entrepreneurs (FISE) (Box 3).

Box 3: The FISE initiative to support sanitation entrepreneurs

FISE is an initiative aimed at supporting sanitation businesses so that they become more bankable and cn access financial products. The initiative builds on the finding that most sanitation enterprises, especially those operating at a smaller scale in rural areas, fail to meet the majority financial institutions requirement: they tend to lack a track record of their business activities and lack financial statements for evaluating their business capacities. They also often lack clear business plans, growth plans and require support in various business practices such as marketing, branding, bookkeeping and human resources management, among others.

FISE supports these businesses through the provision of start-up capital that is linked to the business support enable them in becoming bankable within one year. The aim of is to support their transition to mainstream financial services by supporting them meet the criteria required by financial institutions while in the interim meeting their capital requirements. FISE operates as an angel investor to the small and growing enterprises in the sanitation sector in Kenya with a major focus on youth employment. It proposes soft loans to entrepreneurs at a minimum and flexible interest rate of an average of 1.2% per month.

Source: FINISH-INK

A major lesson that feeds into this Roadmap is the need to enable access to financial services at scale both for household investments and for sanitation entrepreneurs. FINISH-INK results and growing footprint in the sanitation sector in Kenya is a strong indication that linking financial services to building supply and demand for sanitation can accelerate the uptake of sanitation services. The success factor of such an initiative lies into a multi-pronged approach that simultaneously delivers:

- Capacity building of financial institutions so that they design, sell and manage sanitation loans;
- Sustained activities to build demand for sanitation; and
- Supply side interventions.

There are challenges, however, for rolling-out microfinance at scale. First, financial institutions face themselves liquidity issues with other areas seen as more immediately lucrative. The supply of finance, from a financial institution perspective is a challenge. Another

limitation is the perceived risk of sanitation lending, which inhibits financial institutions' interest (in the context of limited liquidity). Finally, financial services are not accessible for all as financial institutions face high acquisition costs when accessing remote villages.[20] Potential customers also face costs when reaching out to financial institutions, such as the costs of travel and time taken to reach main towns. More generally, many rural households are not able to afford microfinance services – typically at a minimum 30% interest rate on the borrowed. As a result, some poor rural communities largely rely on community and trust-based saving and lending mechanisms, such as merry-go-rounds and table banking (self-help lending groups).

Such groups can present a potential solution to improve access to finance for the purpose of sanitation. In response to the challenge of reaching the financially excluded, FINISH developed a digital financial solution, the "Transactional Ledger" (Box 5).

Box 4: The Transactional Ledger: bridging formal and informal financial services

The solution is a digital platform using a light App-based digital solution for groups to formalise their financial records by providing repository solutions, generating financial records and support provision of financial services by third party formal financial institutions. The repository solution provides the mobile-based platform through which savings and lending groups can keep track of their transactions (rather than paper-based recording). The App can also record each member financial behaviour and track-record. Data from the App can be accessible remotely to financial institutions on request, and with permission from group members. As such it enables the financial institution carries out a loan appraisal at a lesser cost, also reducing potential costs that would have been incurred by the group. Accessing such a loan would enhance the group's liquidity, potentially unlocking finance for sanitation investments.

Source: (Bundi, Abdulhadi, Tracy Kegehi, & Kibaya, 2022)

Some key lessons going forward:

- There is the need to attract investors in the sanitation lending space, which could supply the finance required to meet the sanitation sector's objectives.;
- Sector has to continue to work on building a track record for the sector, particularly for sanitation enterprises' lending, which can contribute to improve their bankability;
- Mobile phone technologies offer potential solutions to facilitate financial inclusion in remote areas and enable to the development of microfinance for sanitation in those areas.

20 (Bundi, Abdulhadi, Tracy Kegehi, & Kibaya, 2022)

Lessons from counties' perspective on sanitation and hand hygiene

The following lessons were identified during field visits conducted in six counties (and remote interview with one county) as part of the Roadmap development process. They bring out key messages from county governments, WSPs and other sanitation and hygiene service providers.

1. The risk of "slippage" is real

Experience indicates that counties can achieve ODF and slip back to OD within a short period of time without a comprehensive and robust post-ODF retention strategy. Both internal and external factors to the county governments are at play. Among internal factors, resource allocation for post-ODF activities such as monitoring and follow-up is key. External factors are linked, for example, the lack of material and know-how for the construction of user-friendly and durable latrines. Introducing sanitation marketing early in the process of community engagement can mitigate the risk of return to OD practice.

2. Counties need support beyond the ODF stage

Partners and donor funding have tended to decrease or stop once counties appear to have traction with CLTS and are achieving ODF among communities. However, post-ODF, counties are faced with the challenge of ensuring access to durable and safe toilets and to hand hygiene facilities. Funding is required to design a sanitation and hand hygiene marketing strategy, reach out to different collaborators and target support where needed.

3. Coordination and clear mandates can help move things in the right direction

Nakuru county provides an example of coordination mechanism for sanitation planning, service delivery and monitoring. The county has developed a countywide sanitation plan (Box 5) and formed a joint committee for the management of sanitation and hygiene activities. Concerned departments jointly implement county policy (e.g. setting quality standards) and conduct monitoring (e.g. oversight over sanitation services). Notably, Nakuru's Department of Health has two separate units: 1) Unit for Health and 2) Unit for Public Health and sanitation, which makes it possible to separate health activities from the sanitation activities.

Box 5: Nakuru's county sanitation plan

In 2018, Nakuru County was the first to develop and implement a County Strategic Sanitation Plan and a Strategic Sanitation Investment Plan (2019-2030). The strategy entails service delivery model that covers the whole sanitation value chain including containment, collection, transportation, treatment and disposal or reuse of waste (full sanitation service chain). The Strategy targets rural, urban, peri-urban, planned and informal settlements. It includes all aspects of safely managed sanitation including offsite and on-site sanitation, wastewater and faecal sludge management, resource recovery and integrated drainage and solid waste management. Makueni County also developed Makueni Countywide Inclusive Sanitation Strategy in 2019.

Strong coordination of sanitation and hygiene activities require clear and complementary mandates for sanitation of different actors at the county level. Effective coordination requires in particular that WSPs activities are complementary and supportive of Health units activities.

A first step towards joint planning is a common framework for data sharing and management. In most counties, sanitation data systems are different depending on the county structure and who at county level is in charge of sanitation. For example, some WSPs hold sanitation data, whilst county health departments hold similar or different sets of data. Development partners may themselves use a different data system. All this data, which exist, is not always consolidated and used for joint planning. Indicators that are used can vary from one department to another, which undermines joint efforts.

The forthcoming Real Time Monitoring Tool (RTMT) developed by MOH may help to address the data collection and coordination gaps.

4. A county level sanitation and hygiene strategy or plan can be instrumental for better targeting funds and mobilising resources

Some counties have developed ODF plans which identify communities that need to be targeted with CLTS, but they need to be updated to include provision for sanitation and hand hygiene marketing. When a dedicated sanitation and hand hygiene plan is in place, as in Nakuru, these can feed into the CIDP, which is used for medium-term (five years) planning. A plan provides visibility for sanitation and hygiene and the opportunity for a more rigorous estimate of the costs of sanitation and hand hygiene service delivery and funding mobilisation.

Lessons related to hand hygiene

Households

There is evidence that long-lasting hand hygiene behaviour relies on the availability of suitable hand hygiene facilities and soap, in addition to well-targeted communication. Recent market analysis of hygiene in Kenya indicated that products are widely available at retailers.[21] The emphasis therefore needs to be put on building demand and making available affordable products. Evidence also suggests that hand hygiene behaviour change programmes are successful if they use multiple approaches, use emotions (as disgust, nurture, social status, and affiliation) and change behavioural settings (nudges) to change the environment where the behaviour occurs. The market analysis also indicates that CHVs are good channels for communicating on hand hygiene and for marketing products. Access to water is also another requisite, implying that hand hygiene campaigns should occur whenever a water project is developed and that hand hygiene implementers.

21 (EED Advisory, 2021)

Schools

The Ministry of Education has developed national standards and guidelines for WASH infrastructure in schools including group hand washing facilities with soap. Handwashing in schools is promoted through a number of WASH in schools programmes and by school Health Clubs that promote WASH among the school community. Schools management ensure the Tippy Taps or mass handwashing stations are maintained with clean water and placed strategically outside the school kitchen and latrines. Head Teachers and other teachers are the main champions of handwashing with soap in the school environment. Teachers also act as role models; they also provide leadership in hygiene related issues within the schools. Soap should be included in the school budgets but parents may also be encouraged to contribute funds. The COVID-19 pandemic has also been an opportunity to improve hand hygiene practices in schools.

Health care facilities

Integrating handwashing / basic hygiene is fundamental to primary health care and the prevention of Hospital Acquired Infections (HAIs). With a devolved health care system, WASH services in health facilities are managed at the county level. Although clinic staff may have knowledge of the importance of handwashing, HCFs do not always have functional handwashing stations and soap. A number of development partners are supporting improved WASH in Health Care Facilities with training on proper handwashing and handwashing stations (including Safe Water Program, UNICEF and Sanitation for Universal Health Coverage (S-UHC). During the COVID-19 pandemic, handwashing stations have been increasingly deployed at the entrance of health care facilities to ensure patients and staff including all visitors at the health facilities adhere to COVID-19 measures.

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ANNEX 3: KEY INFORMANTS

Name	Institution
Adam Mohammed	Ministry of Health
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Emmah Mwende	Ministry of Health
Kimathi Kyengo	Ministry of Water, Sanitation and Irrigation
Kennedy Musumba	Ministry of Water, Sanitation and Irrigation
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Hodaka Kosugi	UNICEF
Julie Aubriot	UNICEF
Stella Warue	Water Sector Trust Fund
Peter Koech	Water Sector Trust Fund
Elly Ochere	Water Sector Trust Fund
Richard Cheruiyot	Water Service Regulatory Board (WASREB)
Vincent Ouma	KEWASNET
Patrick Alube	Kenya Water for Health Organization (KWAHO)
Tobias Omufwoko	WASH Alliance
Maxwell Ochieng	WASH Alliance
Beverly Mademba	USAID
Esther Njuguna	USAID
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Pamela Bundi	FINISH INK
Charlotte Mong'ina	FINISH INK
Dennis Munai	AMREF
Fanuel Nyaboro	SNV
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Gertrude Shisanya	Department of Public Health- Kisumu
Paul Masanga	Department of Public Health- Kisumu

Name	Institution
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Peter Odera Owiny	Vuka Sasa Community Group
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James Moko	Department of Public Health- Kitui
Geoffrey Kitonga	Kitui Water & Sanitation Company
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Caroline Vata	Department of Public Health- Nakuru
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Zaituni Rehema	Nakuru Water & Sanitation Co.
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Irene Lotire	Department of Public Health-Turkana
Godwin Wambani	Department of Public Health-Turkana
Mary Loter	Department of Public Health-Turkana
Tito Ochieng	Department of Water - Turkana
Mr. Amos Ndege	Department of Public Health- Kilifi
Zulekha Fadhil	Malindi Water & Sanitation Co.
Monicah Ndegwa	Department of Public Health-Nyeri
Dennis Muriithi	Department of Public Health-Nyeri
Joseph Kibicho	Department of Public Health-Nyeri
Francis Kiura	Nyeri Water & Sanitation Company
Esther Kaboo	Nyeri Water & Sanitation Company
Edwin Maina	Nyeri Water & Sanitation Company
Ahmed Haji	Department of Public Health-Garissa
Andy Robinson	Independent consultant

ANNEX 4: COSTS BY COUNTY

Table A 1: Estimated Roadmap implementation per county (rural areas) in KHS

Counties	COST in KSH						
	G1 Sanitation Units	G1 Communication and Demand creation	G2 Sanitation units	G2 Communication and Demand creation	G3 Communication and Demand creation	Hygiene	Total
Baringo	302,616,613	94,255,828	2,667,545,796	266,754,580	2,526,304	1,071,045,832	4,404,744,953
Bomet	10,400,548	2,070,502	5,321,742,314	532,174,231	1,630,322	1,515,204,666	7,383,222,584
Bungoma	25,428,981	3,896,415	8,586,877,345	858,687,735	4,632,012	2,276,390,315	11,755,912,803
Busia	23,922,103	3,980,091	4,496,707,754	449,670,775	2,484,990	1,164,234,240	6,140,999,954
Elgeyo/ Marakwet	36,199,652	7,315,360	2,987,593,992	298,759,399	1,315,230	762,851,251	4,094,034,883
Embu	4,574,727	915,472	3,322,604,488	332,260,449	2,660,472	879,340,545	4,542,356,152
Garissa	379,118,141	51,880,579	2,581,564,137	258,156,414	781,791	1,152,719,435	4,424,220,497
Homa Bay	172,633,774	34,166,577	5,451,221,697	545,122,170	2,953,845	1,640,202,881	7,846,300,942
Isiolo	72,349,148	10,226,944	521,339,449	52,133,945	867,775	144,699,739	801,616,999
Kajiado	111,877,234	16,312,828	1,945,512,199	194,551,220	2,388,102	668,693,246	2,939,334,829
Kakamega	22,703,103	3,743,184	9,699,019,853	969,901,985	5,939,363	3,016,668,783	1,3717,976,271
Kericho	14,874,278	2,650,613	5,632,201,180	563,220,118	2,783,993	1,327,933,462	7,543,663,645
Kiambu	872,869	106,508	2,437,500,606	243,750,061	3,124,517	817,681,363	3,503,035,924
Kilifi	299,309,013	47,250,750	4,498,438,405	449,843,841	3,687,349	1,712,455,283	7,010,984,642
Kirinyaga	1,163,548	201,434	2,859,319,328	285,931,933	2,923,688	734,673,824	3,884,213,755
Kisii	12,316,788	3,364,185	6,469,776,471	646,977,647	3,522,004	2,117,811,824	9,253,768,919
Kisumu	31,565,427	5,374,000	3,779,138,816	377,913,882	1,784,722	1,130,966,162	5,326,743,010
Kitui	146,577,933	38,574,027	6,678,207,317	667,820,732	4,845,810	1,877,244,623	9,413,270,440
Kwale	389,875,201	60,273,189	3,025,529,949	302,552,995	2,218,746	1,259,797,851	5,004,247,932
Laikipia	54,139,318	6,745,072	2,089,229,814	208,922,981	1,616,994	586,252,202	2,946,906,382
Lamu	27,796,142	4,525,081	509,852,786	50,985,289	417,803	160,944,667	754,521,758
Machakos	13,354,456	2,255,056	4,548,208,539	454,820,854	4,310,533	1,648,033,604	6,670,983,043
Makueni	13,406,109	3,539,551	5,086,105,458	508,610,546	3,972,897	1,695,077,158	7,310,711,720
Mandera	390,723,623	42,750,827	2,682,506,094	268,250,609	575,776	998,325,809	4,383,132,739

Counties	COST in KSH						
	G1 Sanitation Units	G1 Communication and Demand creation	G2 Sanitation units	G2 Communication and Demand creation	G3 Communication and Demand creation	Hygiene	Total
Marsabit	277,587,896	61,190,567	1,367,442,482	136,744,248	619,319	587,486,759	2,431,071,270
Meru	28,996,477	4,664,661	8,307,629,528	830,762,953	10,321,411	1,784,304,218	10,966,679,248
Migori	109,472,967	21,819,718	6,133,808,222	613,308,822	3,367,749	1,755,929,028	8,637,778,507
Mombasa	-	-	-	-	-	-	-
Murang'a	2302164	416,021	5,992,446,727	599,244,673	5,106,071	1699631,790	8,269,147,446
Nairobi	-	-	-	-	-	-	-
Nakuru	10,945,036	1,498,855	5,844,241,300	584,424,130	6,837,081	1,771,214,706	8,219,161,109
Nandi	15,205,409	2,808,100	5,407,600,810	540,760,081	4,923,528	1,441,331,740	7,412,629,670
Narok	495,386,880	102,466,328	5,305,207,008	530,520,701	3,132,678	1,908,776,825	8,345,490,420
Nyamira	6,852,659	1,498,203	3,228,017,689	322,801,769	2,132,323	1,035,386,043	4,596,688,686
Nyandarua	1,402,956	204,213	3,727,822,834	372,782,283	3,505,561	980,669,136	5,086,386,983
Nyeri	746,450	124,342	3,623,190,602	362,319,060	2,933,945	948,564,418	4,937,896,817
Samburu	286,805,758	53,364,550	620,829,536	62,082,954	380,763	478,649,894	1,502,113,455
Siaya	66,823,620	12,724,311	6,122,183,427	612,218,343	3,376,961	1,367,463,154	8,184,789,816
Taita/Taveta	8,723,949	1,280,525	1,458,014,387	145,801,439	1,173,608	300,624,813	1,915,618,721
Tana River	193,933,855	33,639,251	824,019,365	82,401,936	380,625	385,776,018	1,520,151,051
Tharaka-Nithi	4,864,333	1,454,037	2,356,008,645	235,600,864	1,936,773	606,257,938	3,206,122,590
Trans Nzoia	13,940,510	2,133,910	5,311,881,737	531,188,174	3,885,876	1,469,664,422	7,332,694,629
Turkana	889,361,360	178,921,944	1,730,402,059	173,040,206	893,649	1,247,210,389	4,219,829,606
Uasin Gishu	4,005,672	584,048	3,481,865,321	348,186,532	3,238,854	1,091,957,630	4,929,838,056
Vihiga	3,913,495	677,625	2,921,623,947	292,162,395	2,807,848	874,501,701	4,095,687,010
Wajir	437,515,868	61,788,607	2,413,361,609	241,336,161	436,967	1,142,218,330	4,296,657,541
West Pokot	418,065,566	109,746,700	2,472,167,572	247,216,757	1,076,005	1,110,993,910	4,359,266,511
Total	**5,834,651,609**	**1,099,398,590**	**17,652,758,596**	**17,652,750,860**	**126,432,632**	**54,317,861,631**	**255,558,603,918**



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All of Kenya's rural population to live in an environment free from open defecation, with access to basic hand hygiene facilities by

2030



Ministry of Health

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