

# DRIVING TRANSFORMATIVE SANITATION

*A Collaborative Framework for Self-Regulation and Sustainable Sanitation Development.  
Second Sanitation Accountability Symposium 2025 – Key Insights, Challenges, and Calls to Action*



# **Report for Second Sanitation Accountability Symposium (SanAccsII). Driving Transformative Sanitation:**

**Prepared by:** WaSHVoice

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## Abbreviations

**ASALs:** Arid and Semi-Arid Lands

**CBOs:** Community-Based Organizations

**CSOs:** Civil Society Organizations

**CWIS:** Citywide Inclusive Sanitation

**DTFs:** Decentralized Treatment Facilities

**KEWI:** Kenya Water Institute

**KEWASNET:** Kenya Water and Sanitation Civil Society Network

**KPIs:** Key Performance Indicators

**KWAHO:** Kenya Water for Health Organization

**NEMA:** National Environment Management Authority

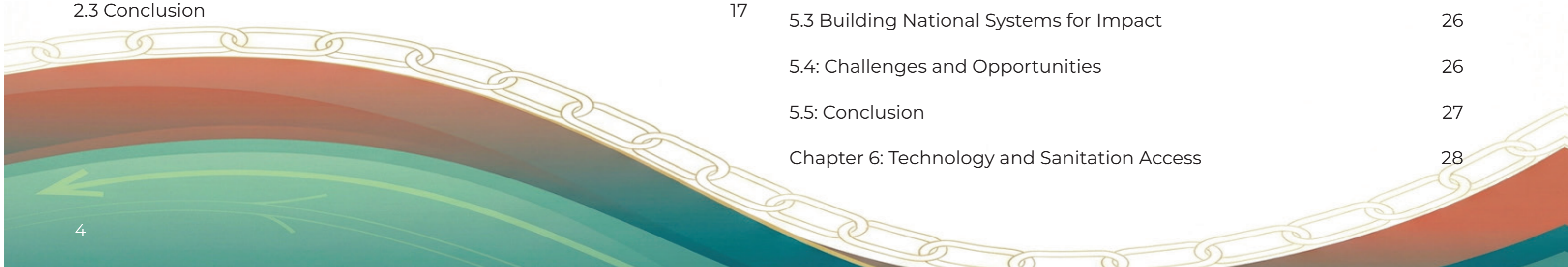
**SDG:** Sustainable Development Goal

**WASREB:** Water Services Regulatory Board

**WSP:** Water Service Provider

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## Acknowledgement

This report documents the profound insights and findings gathered during the Second Sanitation Accountability Symposium (SanAccsII), an event made possible by the extraordinary collective enthusiasm and dedication of the sanitation Actors.

The success of SanAccsII was built upon the widespread participation and commitment of all Attendees. The large numbers were instrumental in securing the event, and their willingness to share deep knowledge and profound thoughts created a truly transformative atmosphere. The passion demonstrated by all participants in furthering the sanitation conversation is highly inspiring. The discussions, led by a skilled Session Moderators and Panelists, were incredibly rich and profound, resulting in a wholesome repository of information and knowledge.

A cornerstone of the symposium's success was the constant guidance and engagement from key leadership figures. We extend special and profound gratitude to Dr. Festus Ng'eno Eng., the Principal Secretary for Environment. His unwavering passion, ever-present engagement in sanitation discussions, and his constant guidance serve as a powerful motivation for the entire sector, clearly showing his deep commitment to the future of sanitation and his closeness to sector actors on the ground.

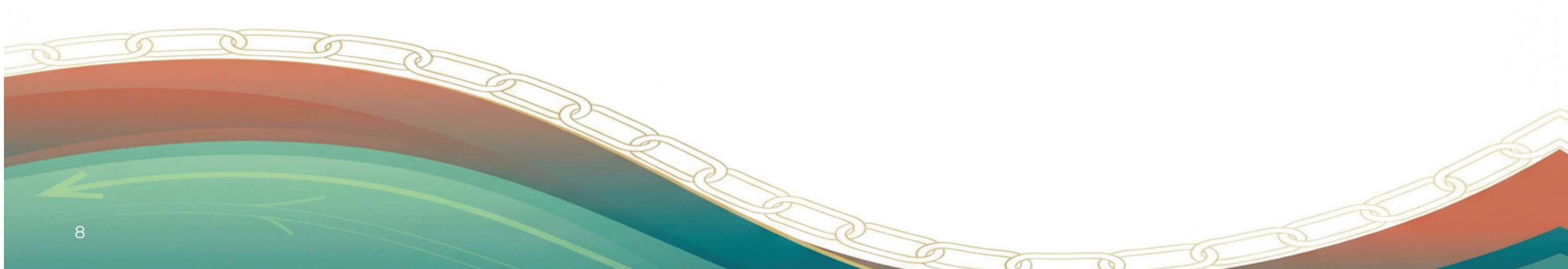
Recognition is also due to Patrick Alubbe for his critical role in expertly steering

the conservation throughout the symposium and for his unwavering support of the sanitation accountability agenda.

The meticulous execution of the symposium was ensured by the dedication of a core team of organizers, including Malesi Shivaji of KEWASNET, Aidah Binale of WaSHAlliance, Dr. Charles Oyaya IDIA, Eng. Robert Gakubia of Blackburn, Maureen Kirwa and Peter Hamisi of APSSA, among others. Their collective efforts ensured the smooth and flawless delivery of the entire event.

High gratitude is also extended to our essential partners: Water Sector Trust Fund (WSTF): Recognized as a key partner for their consistent and meaningful support. National Environment Management Authority (NEMA) for their invaluable support and Kenya Water Institute (KEWI) who graciously hosted the event, providing the essential venue and dedicating their students to offer critical logistical and technical support.

While this report may not claim to be the definitive authority on sanitation in Kenya, it provides sufficient information derived from these profound discussions to genuinely transform the sanitation sector.



## Foreword

to this collection of insights, born from the Second Sanitation Accountability Symposium (SanAccsII). As the Organizer of this pivotal event, I am incredibly proud of what we have collectively achieved, and what we are planning for the future.

The journey began with the inaugural symposium SanAccsI of 2023, where we boldly tackled the core impediments in the sanitation space. We quickly identified that the most significant hurdle was governance, largely attributed to lack of clear coordination and operations framework among actors.

Building on that foundation, SanAccsII pivoted the conversation from problem identification to solution formulation. Our focus shifted to the critical task of setting quality systems from the actors' perspective and establishing mechanisms for mutual accountability. The theme remained clear: sanitation is central to health, environment, and dignity. The symposium was a powerful call for every stakeholder to checkmate each other, ensuring the sector works cohesively and inclusively.

I am profoundly grateful to witness the passion and commitment of the attendees. While I cannot claim that the discussions at SanAccsII represent the ultimate, singular authority on sanitation, they undeniably provide sufficient, transformative information to propel the sector forward. The participants engaged in a deep-dive analysis of core issues, and the knowledge shared has the potential to ensure that critical sanitation milestones are achieved well ahead of the 2030 deadline.

While we know that this information may not provide a comprehensive solution, proactively addressing every known risk, its application will most certainly activate the achievement of our intended results. I must also commend our session moderators, who effectively spearheaded the cross-functional sanitation efforts, driving essential collaboration and maintaining

momentum throughout the entire symposium. The commitment of every participant was truly relentless and exceptional.

To ensure a more impactful 2025/2026, we must translate our current discussions into concrete actions. I firmly believe that the knowledge shared during SanAccsII will lead to measurable results by the Third Sanitation Accountability Symposium (SanAccsIII) in 2027. My hope is that, by then, the sanitation space will be demonstrably better and safer.

Let us all work together to ensure we are all safe.

Elizabeth Wambui Mwangi

Director, Planning and Programs,

WaSHVoice Organiser, Second Sanitation Accountability Symposium

## Introduction: Driving Transformative Sanitation

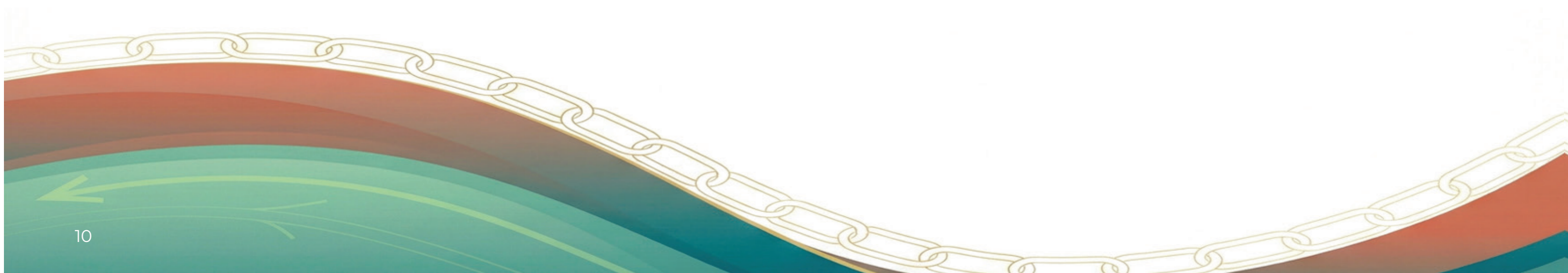
The publication you hold is more than a proceedings report; it is a foundational roadmap resulting from the pivotal symposium, Driving Transformative Sanitation. Convened by the WaSHVoice, KEWASNET and APSSA, this gathering brought together a diverse and committed cohort of policymakers, regulators, national and county government representatives, civil society leaders, innovators, and sanitation professionals and other sanitation sector players. Our collective purpose was clear: to forge a collaborative strategy for closing the persistent sanitation and hygiene gap, a challenge that is simultaneously an urgent public health imperative and a fundamental constitutional right for all citizens.

The dialogue was set against the backdrop of Kenya's resolute commitment to environmental stewardship, underscored by the recent publication of the Environmental Management and Coordination (Waste Management Regulation, and the Water Quality Regulations of 2024). These forward-looking standards reinforce the government's mandate to ensure clean, healthy environments and reasonable sanitation for every Kenyan. The symposium discussions clarified that these regulations are not punitive measures, but rather tools intended to foster a robust, well-organized, and adequately funded sanitation sector where the National Environment Management Authority (NEMA) acts as a trusted partner, empowering stakeholders toward collective compliance and progress.

Ultimately, the consensus achieved during the symposium affirms that genuine transformation in the sanitation sector requires moving beyond conventional infrastructure models. It demands innovative financing, coordinated research, and, most importantly, the empowerment of communities to champion self-regulation and sustainable solutions. We present these findings not as a final conclusion, but as a critical stepping stone—a call to action for every stakeholder to embrace a future where waste is seen not as a problem to be contained, but as an opportunity to build a cleaner, healthier, and more sustainable Kenya for this generation and the next.

This report systematically captures the intellectual exchange and actionable recommendations generated over the course of the symposium. The structure follows the intense, thematic focus areas identified during the discussions.

Symposium organizers





# Chapter 1: A Collaborative Framework for Self-Regulation and Sustainable Sanitation Development

### Symposium Presiding Officer:

**Patrick Alubbe:** Executive Director of the Kenya Water for Health Organization (KWAHO)

**Opening Speech:** Elizabeth Wambui: Director, Program and Planning: WaSHVoice

**Keynote:** Dr. Cheruiyot Communications Director, KEWI

**Keynote and opening ceremony:** Eng. Daniel Ng'ang'a, Managing Director, Murang'a Water

### Panel Discussion: Driving Transformative Sanitation

**Moderator:** Beverly Mademba

#### Panelists

- *Caroline Kwamboka:* Trustee/Director Africa Renaissance
- *Nancy Ngao:* Government Affairs Policy & Advocacy Lead  
Fresh Life
- *Pamela Bundi:* Finish Ink
- *Shivaji Malesi:* CEO Kewasnet
- *Carolyne Odera:* Kisumu Water and Sanitation Company

## 1.1 Introduction

The Second Sanitation Accountability Symposium, 2025, convened a diverse group of stakeholders to discuss “Driving Transformative Sanitation: A Collaborative Framework for Self-Regulation and Sustainable Development.” The symposium aimed to foster discussions on sanitation issues and establish a framework for self-regulation within the sector. This report summarizes the key discussions, challenges, opportunities, and calls to action from the opening session.

## 1.2 Discussions and Themes

The session highlighted a significant shift away from traditional sanitation methods, advocating for a more **collaborative and self-regulatory approach**. Several **key themes** emerged from these discussions:

### 1.2.1 The need for Self-Regulation

A central theme was the vital importance of self-regulation for advancing the sanitation sector. The discussion emphasized that while government mandates are essential for protecting public health and the environment, the interconnected nature of the sector demands **collective self-regulation**. This approach complements government efforts, easing regulatory burdens and creating a supportive environment for all stakeholders. Critically, it enables innovation to flourish without relying solely on government oversight, which helps build credibility and trust among partners.

## 1.3 Challenges in the Sanitation Sector

Despite progress over the past decade, significant challenges still exist. The session noted that over 17% of the population still practices open defecation, particularly in arid and semi-arid areas, and more than half of residents in informal settlements rely on shared or unimproved facilities. Sanitation remains chronically underfunded, fragmented, and often overlooked in urban planning. Key barriers to progress include outdated regulations and a lack of clear coordination among the various national and county-level entities involved in permitting and oversight.

## 1.4 Opportunities for Transformation

**The session identified several opportunities for transformative sanitation:**

- **Citywide Inclusive Sanitation (CWIS):** Making sure everyone, especially the most marginalized, has access to sanitation services.
- **Circular Economy Approaches:** Converting waste into value through energy, compost, or reuse.
- **Resilient Infrastructure:** Building systems that can endure climate shocks and incorporate water resource protection.
- **People-Centered Approach:** Valuing local knowledge, preserving dignity, and empowering communities to access services.
- **Leveraging Innovation:** The private sector provides essential innovation that can progress faster than formal regulations, with self-regulation ensuring quality and compliance.
- **Institutions Financial Inclusion:** Engaging financiers to facilitate investments in sanitation upgrades through loans and various financial services and models.

- **Capacity Building:** Academic institutions play a crucial role in research, innovation, and training the next generation of sanitation professionals by providing research-informed policies and solutions.

## 1.5 Collaborative Action and Stakeholder Roles

The panel emphasized that **transformative change requires collaboration** across all sectors

- *County governments:* Vital for improved service access with dedicated accountability.
- *Private sector:* Sparks innovation, scalable solutions, and solves financing bottlenecks.
- *Academia:* Holds the keys to innovative ideas, shaping professionals, and informing research-based policies.
- *Civil Society Organizations (CSOs) and Community-Based Organizations (CBOs):* Bridge the gap between service delivery and citizen participation, promoting self-organization and bottom-up governance. Umbrella organizations for CSOs can support peer evaluations and ensure compliance with shared standards.
- *Development partners and financiers* are crucial for supporting sustainable models and catalyzing investments.
- *Water Service Providers (WSPs):* While traditionally focused on piped systems, WSPs are increasingly recognizing the need to delegate services and provide oversight for third-party service providers in on-site sanitation, ensuring quality and accountability.

## 1.6 Call to Action

The session ended with an urgent appeal for bold, intentional, and cooperative

action.

Participants were encouraged to:

- a) View sanitation as an economic and environmental opportunity, not merely a social service.
- b) Mainstream sanitation in all development planning (housing, education, health, urban design).
- c) Focus on data, innovation, and local leadership.
- d) Set an example of courage, clarity, and collaboration for future generations.

The session marked an important starting point for a transformative journey in the sanitation sector, with expectations for major milestones to be reached through collective effort and stronger collaborations in the upcoming years.

## 1.7 Conclusion

The session emphasized that the conversation about sanitation has significantly progressed, shifting from an overlooked issue to a key topic of discussion and policy focus. While challenges still exist, the shared commitment to self-regulation, collaboration, and innovative strategies provides a promising path toward achieving sustainable sanitation for everyone, ensuring dignity, equality, and unlocking human potential.

*Keywords: Sanitation, self-regulation, sustainable development, accountability, collaborative framework, water, sanitation, and hygiene (WASH), public health.*



## Chapter 2: Bridging the Sanitation Gap - Dignified Inclusive On-Site Sanitation Solutions

### **Session Moderator:**

*Eden Mati: World Bank*

### **Panelists**

- *Patrick Alubbe: Executive Director Kenya Water for Health Organization (KWAHO)*
- *Charlotte Mong'ina. Business Development Advisor: FINISH Mondial Kenya*
- *Sylvia Nyaga. Founder, Syna Consultancy*

### **2.1 Introduction**

The session centered on the critical issue of on-site sanitation, highlighting the need for dignified and inclusive solutions to close the existing sanitation gap. The discussion assembled experts from diverse backgrounds in water engineering, business administration, and market-based sanitation, bringing a wide range of experiences and perspectives.

### **2.2 Key Discussion Points and Gaps Identified**

The four key discussion areas were: sanitation gaps, organizational efforts to address these gaps, opportunities, and reimagining on-site sanitation.

#### **2.2.1 On-site Sanitation Gaps**

A significant sanitation crisis is highlighted, showing a large portion of the

population still practices open defecation or relies on unimproved pit latrines. This results in lack of dignity, security, and privacy in sanitation practices.

Several factors contributing to this crisis were identified.

- **Poverty:** Sanitation is often overlooked in household budgets, seen as a self-supply need that competes with other vital family expenses.
- **Inappropriate Technologies:** Collapsible soils and rocky terrains hinder traditional latrine construction which are most affordable, resulting in dependence on inadequate or unsafe alternatives.
- **Cultural issues:** Certain beliefs and practices limit the acceptance of improved sanitation facilities.
- **Prioritization at Household Level:** There is generally low demand for on-site sanitation financing and products, showing a need for increased awareness and recognition of value.
- **Sustainability and Inclusion:** Many sanitation projects fail because of inadequate operations and maintenance. Additionally, many existing sanitation solutions are not accessible or inclusive, especially for people with disabilities, seniors, and women and girls who face security issues.
- **Data Gaps:** A major lack of comprehensive data on sanitation infrastructure, especially in informal settlements, hampers effective planning and intervention. There is a need for improved statistics on access to existing sewer lines and the remaining gaps.
- **Policy and Regulatory Gaps:** Current policies and regulations do not sufficiently cover the complexities of on-site sanitation, particularly relating to land subdivision and sanitation planning in new developments.

## 2.2.2 Organizational Efforts in Closing On-Site Sanitation Gaps

**Organizations have a responsibility to proactively close these gaps through different initiatives.**

- **Safely Managed Solutions:** Implementing safely managed toilets in rural areas to demonstrate a high level of sanitation ladder adoption. These projects should include provisions on-site management and engage local artisans for construction and maintenance, promoting self-sustainability within communities.
- **Circular Economy Approaches:** A core focus was the **circular economy**, particularly the **safe reuse of human waste**. This involves developing systems that allow for the secure processing and recovery of solid waste for beneficial applications, such as fertilizer. To support co-composting and other recovery processes, partnerships with agricultural institutions.
- **Addressing Affordability:** To make solutions affordable, financially viable models and strategies and utilizing readily available local materials.
- **Inclusion and Community-Centered Design:** Solutions should be co-created with communities through human-centered design processes, ensuring cultural relevance and user acceptance. This involves understanding local contexts and adapting technologies to meet specific needs, recognizing that a “one-solution-fits-all” approach is ineffective.

- **Sensitization and Training:** Conduct extensive awareness programs to educate community members about the importance of sanitation and the available solutions. Training local entrepreneurs and artisans is essential for sustainable operation and maintenance.
- **Data Collection and Monitoring:** Organizations developing platforms to gather data on sanitation infrastructure, especially regarding accessibility and functionality, to guide planning and execution.
- **Partnerships:** Building strong relationships with county governments, water service providers, and agricultural institutes is essential for managing waste, establishing decentralized treatment facilities, and integrating sanitation into broader development strategies.

### 2.2.3. Opportunities

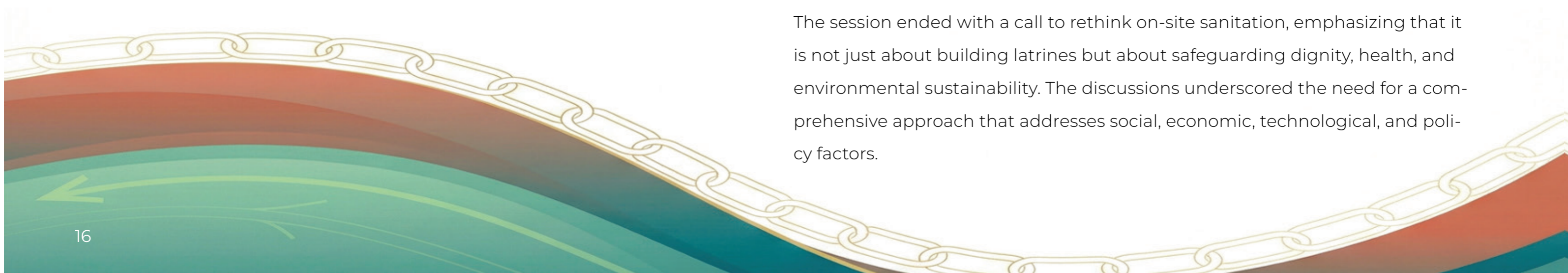
The session identified opportunities for future action:

- **Treating Sanitation as a Business:** Viewing sanitation as a business opportunity can foster innovation, product development, and market-driven solutions. This involves identifying needs, developing suitable technologies, training local artisans, decentralizing hardware supply, and creating innovative financing models (both formal and informal) to make sanitation affordable.

- **Decentralized Systems:** Developing and funding decentralized treatment systems (DTFs) provides a practical solution for small towns and urban areas where large-scale sewerage systems are not feasible.
- **Technological innovations:** Ongoing advancements in technologies like black soldier fly, composting for waste treatment, and ecological sanitation (dry toilets) offer opportunities for sustainable and resource-efficient solutions, especially in water-scarce areas.
- **Policy Integration:** Promoting the inclusion of sanitation planning in land subdivision policies and government development projects (e.g., 100 dumps initiatives) is essential.
- **Capacity Building:** There is a need to develop a critical mass of people interested in sanitation through targeted short courses and by engaging young people early via school clubs to foster interest in the sector.
- **Leveraging Existing Data Initiatives:** Using and contributing to government-led real-time monitoring information systems can help integrate data and avoid redundancy in efforts.
- **Scaling Up through Government Adoption:** Integrating private sector and civil society initiatives with government mandates by providing training, implementing new technologies in public works departments, and encouraging close collaboration with government officials.

### 2.2.4 Reimagining On-Site Sanitation

The session ended with a call to rethink on-site sanitation, emphasizing that it is not just about building latrines but about safeguarding dignity, health, and environmental sustainability. The discussions underscored the need for a comprehensive approach that addresses social, economic, technological, and policy factors.



## 2.3 Conclusion

The session offered a thorough overview of the challenges and opportunities in on-site sanitation. It emphasized the urgent need for collaborative efforts among government, private sector, civil society, and communities to close the sanitation gap and deliver dignified, inclusive solutions for everyone. The insights gained can guide future policy and investment.



## Chapter 3: Advancing Sanitation through Self-Regulation and Collaboration

### Session Moderator:

Eng. Robert Gakubia, Director at Blackburn Associates Ltd, and former CEO of WASREB.

### Panel Discussant

- Eng. Chomba: Director · Aljuli Engineering Ltd.
- Beatrice Langat: Researcher at Kenya Water Institute
- Shadrack Odhiambo: Relationship Manager (WaSH) at Family Bank

The discussion focused on how self-regulation can facilitate both **technological innovation and sustainable financing**. Ultimately, the conversation highlighted the complex challenges and opportunities involved in providing effective and equitable sanitation services.

### 3.1 The Imperative of Self-Regulation in Sanitation

The shift toward **self-regulation** has become a central focus. It was emphasized that while regulatory oversight is key to **accountability**, self-regu-

lation can actively **drive solutions** and promote responsibility from within the sector. The current sanitation regulatory structure was described as complex, involving multiple government agencies whose resource limitations often complicate monitoring and enforcement. The session stressed the importance of the sector taking the lead in regulating itself, particularly in waste management, to prevent environmental “nuisance” and guarantee proper data collection and professional standards. This approach is designed to create **industry-driven standards** that meet national goals, shifting the focus from passive compliance to proactive improvement.

### 3.2 Strengthening On-Site Sanitation through Coordination and Research

A key presentation highlighted the importance of research institutions in strengthening the on-site sanitation value chain by improving coordination. The discussion noted that academic mandates often include collaboration, training, and providing forums for public-private sector interaction. A major challenge identified was the low enrollment of students in sanitation-focused programs compared to water engineering, prompting a call for industry stakeholders to play a more active role in curriculum development and student internships to keep these programs relevant and appealing.

The significance of multidisciplinary research was highlighted, emphasizing collaboration among social scientists, policy experts, public health specialists, and engineers to create comprehensive and evidence-based solutions. An example of practical research application was presented through a project that focused on training youth in scientific and digital transfer, including the construction of sanitation facilities and composting plants. This initiative also involved training women, farmers, and community

health volunteers, demonstrating a holistic approach to improving sanitation. Challenges related to public perception, particularly health concerns and trust in treatment processes, were identified as significant barriers to adopting sanitation products.

### 3.3 Streamlining Technology and Innovation

There is a critical need to simplify technology and innovation approval processes for effective on-site sanitation. Although many creative solutions address gaps in existing systems, significant challenges still hinder their adoption. These include a confusing regulatory environment with multiple approving agencies, a lack of comprehensive design approval processes that consider the biological effectiveness of systems, and the public’s hesitance to invest adequately in sanitation facilities compared to other infrastructure.

#### The discussion outlined a few strategies for improvement:

- **Single-window clearance:** Centralizing approval processes for all sanitation systems to ensure consistency across regions.
- **Application tracking:** Developing transparent systems to monitor approval statuses.
- **Tiered approval processes:** Establishing multiple approval levels depending on the facility’s complexity.
- **Technical advisory panels:** Involving industry experts in approval pro-

cedures and standard design creation.

- **Capacity building:** Training regulators and practitioners on emerging technologies.
- **Knowledge management:** Developing centralized databases for approved technologies and their performance.
- **Feedback mechanisms:** Monitoring technology performance to facilitate continuous improvement.

The significance of scaling designs for mass market adoption and fostering innovation through thorough research was also emphasized.

### 3.4 Enabling Environment through Sustainable Financing

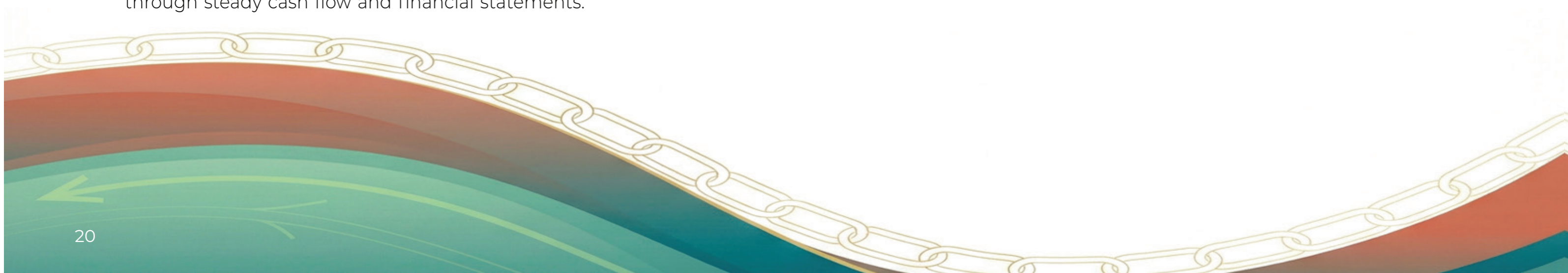
The role of financial institutions in creating an enabling environment for viable on-site sanitation was a key part of the discussion. Banks are increasingly recognizing opportunities in the sanitation sector and developing tailored financial products. The discussion highlighted that collateral is often not the main barrier to financing; instead, the lack of basic records and well-structured business practices among sanitation enterprises hinders access to funding.

#### Key factors banks consider for lending (the “Five Cs”) were outlined:

- **Capacity:** The borrower’s ability to repay the loan, demonstrated through steady cash flow and financial statements.

- **Conditions:** The loan terms, including repayment periods, with a preference for projects that produce immediate income.
- **Capital:** The borrower’s contribution to the project, showing commitment.
- **Character:** The borrower’s reputation, experience, and past performance in the industry.
- **Collateral:** The final option, based on the loan amount and the borrower’s overall profile.

Examples of successful financing initiatives included programs to help schools build sanitation infrastructure and partnerships with organizations to secure loans for water-related businesses. Emphasis was placed on the importance of capacity building for micro-entrepreneurs in financial literacy and record-keeping. The session ended with a call for increased collaboration among all stakeholders—government, private sector, and financial institutions—to create a seamless and effective sanitation system.





## Chapter 4: Advancing Non-Sewered Sanitation

### **Session Moderator:**

Pricilla Oluoch, Manager of Sanitation at Malindi Water and Sanitation Company.

### **Panelists**

- Boaz Munga: Kenya Institute for Public Policy Research and Analysis (KIPPRA)
- Anthony Njaramba: Water Service Providers Association (WASPA)
- Mr. Torut: Director, Partnership, Ministry of Water and Sanitation

The session focused on the critical, yet often neglected, area of **non-sewered sanitation**, exploring the complexities of its **governance, policy, and implementation**. The main takeaway was the urgent need for a more **coordinated and robust approach** to guarantee **safely managed sanitation services**, particularly in underserved communities.

## 4.1: Challenges and Gaps in On-Site Sanitation Governance

The current fragmented institutional landscape poses a major challenge to sanitation efforts. Numerous government departments, agencies, and non-state actors are involved, leading to overlapping mandates and significant coordination difficulties. This fragmentation, while not inherently negative, is compounded by a lack of effective coordination mechanisms, often due to limited inter-agency funding, which severely hinders progress.

Further complicating the situation is the inconsistent prioritization of sanitation within county budgets and national investment plans; despite its critical role, the sector consistently receives less financial attention than others. Finally, the absence of a unified monitoring system and a single, reliable source of data obstructs effective resource allocation, and a proliferation of uncoordinated policies generates confusion among stakeholders regarding their mandates and compliance.

## 4.2 Policy and Regulatory Frameworks

Existing legislation, including the National Water Policy of 2021, appropriately acknowledges the limitations of sewerage services and calls for investment in non-sewered sanitation. The significant gap, however, is im-

plementation: specifically, the difficulty in translating these policies into practical regulations and ensuring their consistent application across all government tiers. Although the Water Act of 2016 establishes clear responsibilities and allows for service provision agreements, the overarching requirement is for a harmonized and comprehensive regulatory framework to integrate all current initiatives.

**The concept of “self-regulation” was explored, with the caveat that it must be underpinned by effective government oversight. While successful private sector and community-led initiatives exist, the broader challenge is formalizing these partnerships and maintaining accountability within a defined regulatory structure. Discussion of the Public-Private Partnership (PPP) Act raised questions about its relevance to smaller-scale sanitation projects, and debate centered on whether more binding agreements are required to replace or strengthen informal Memoranda of Understanding (MOUs).**

## 4.3: Solutions and Forward-Looking Strategies

Several solutions and forward-looking strategies were proposed. A strong consensus emerged around the need for a multi-agency approach with a unified command center to coordinate efforts and reduce fragmentation. Comparing this to successful multi-agency teams in other sectors (such as port operations and security), it was suggested that a similar model could

significantly improve sanitation outcomes.

The importance of data coherence and robust monitoring systems was also stressed. Consolidating information from various agencies into a single source of truth would enable better decision-making and investment planning. Furthermore, there was a call for increased civic education and sanitation exposure for new leadership within water service providers and local governments, as high turnover often leads to a lack of continuity and understanding of sanitation mandates.

Finance and Implementation: Encouraging utilities to adopt non-sewered sanitation (NSS) is essential. This involves creating clear sanitation plans with key performance indicators (KPIs), exploring innovative financing options like “water bonds” that explicitly include sanitation, and recognizing that the return on investment for sanitation, though potentially longer-term, can be substantial. The concept of leveraging regional economic blocs for collective sanitation action was also proposed as a new approach.

*Ultimately, the discussions highlighted that advancing NSS requires:*

- Strengthening existing governance structures to fully support sanitation mandates.
- Ensuring policies are regularly reviewed and mutually reinforced.
- Promoting a collaborative environment where all stakeholders, including the private sector and communities, are recognized, mapped, and integrated into a shared vision for safely managed sanitation.

The collective voice for sanitation must be amplified to ensure it receives the necessary attention and resources.



## Chapter 5: Using Technology and Innovation to Improve On-site Sanitation

### Session Moderator:

Francis Maluki, Senior Monitoring and Enforcement Officer at the Water Services Regulatory Board (WASREB)

### Panelist

- a) Nancy Ngao - Government Affairs, Policy, and Advocacy Lead at Fresh Life
- b) Beverly Mademba: Public health professional and WaSH specialist.
- c) Emmanuel Mwango: WASH and Governance Specialist, Sanitation Expert

### 5.1 Introduction

The session addressed the use of technology and innovation in achieving comprehensive on-site sanitation, focusing on the dual goals of streamlining existing systems and accelerating the adoption of new, sustainable technologies.

## 5.2 Key Discussions and Insights

### 5.2.1 Context-Specific Technology and Innovation

The session underscored that sanitation solutions are not “one-size-fits-all,” emphasizing that successful interventions require a thorough assessment of local needs and community conditions. For instance, traditional sewerage systems are often unfeasible in dense, unplanned urban informal settlements due to limited space, high population density, and substantial cost and time requirements. In these areas, and in high water table locations like Kisumu, alternatives such as Container-Based Sanitation (CBS)—which offers flexibility and eliminates the need for sewer connections—or simplified sewer systems are particularly beneficial.

### 5.2.2 Leveraging Mobile Technology for Service Delivery

The session highlighted mobile technology as a powerful tool for improving sanitation service through real-time reporting and monitoring. A demonstrated system showed how a digital platform can successfully track the complete service chain, from customer contact and installation through to toilet emptying and maintenance. This holistic digital approach enhances operational efficiency, streamlines data sharing with utility partners, and ensures accurate waste management oversight. Furthermore, these platforms integrate direct channels for customer feedback and issue reporting, which significantly boosts accountability and responsiveness within the sector.

### 5.2.3 Community Engagement in Sanitation Projects

Community involvement is paramount to the success and longevity of sanitation efforts. Many past initiatives demonstrate that a lack of local engagement results in non-adaptable solutions and ultimate failure. Effective, recognized methodologies like Community-Led Total Sanitation (CLTS) and Participatory Hygiene and Sanitation Transformation (PHAST) successfully promote health and end open defecation, particularly in rural settings. Furthermore, the discussion emphasized the need to integrate communities into the legislative process—specifically when developing county integrated development plans—to guarantee sanitation receives sufficient funding and that appropriate projects are implemented.

### 5.2.4 Climate Resilience in Sanitation Systems

**Making sanitation systems resilient to climate change is essential. This requires designing technologies that are adaptable to diverse climates and weather conditions. A key strategy is community mapping of existing sanitation facilities to evaluate their vulnerability to environmental factors, which enables the collaborative design of climate-resilient technological options. Additionally, involving key stakeholders from various ministries (Health, Environment, and Water) at both the county and national levels is crucial for addressing the interconnected aspects of climate resilience in sanitation.**

### 5.3 Building National Systems for Impact

Discussions on developing strong national systems for on-site sanitation centered on three pillars: institutional frameworks, capacity building, and financing.

- a) **Institutional Frameworks:** A robust institutional framework must be legally and politically established, featuring clearly defined, adequately staffed, and mandated organizations subject to regular oversight. While Kenya already possesses a comprehensive regulatory and institutional system for sanitation, the numerous policies and institutions often create a perception of “over-regulation.” Consequently, efforts to consolidate overlapping functions are viewed as positive steps toward reducing systemic redundancy.
- b) **Capacity Building:** Supporting sector capacity involves identifying stakeholders at all levels and understanding their specific needs. This includes training service providers on existing regulations and approval processes, strengthening the connections between utilities and small-scale providers, and facilitating the sharing of existing knowledge.
- c) **Financing and Funding:** Exploring various financing mechanisms is essential for backing large-scale sanitation projects. A successful strategy has been to shift the focus from merely addressing public health crises to highlighting the economic costs and quantifiable benefits of investing in sanitation, a shift that has been effective in attracting private sector investment. The discussions further emphasized on utilizing existing resources from development partners to unlock further oppor-

tunities, such as strengthening supply chains and building robust markets for sanitation products. The potential for a sizable sanitation market in Kenya points at a promising investment opportunity. A persistent challenge, however, remains the integration of disparate data systems across government departments and private organizations to create a comprehensive registry of regulated sector players.

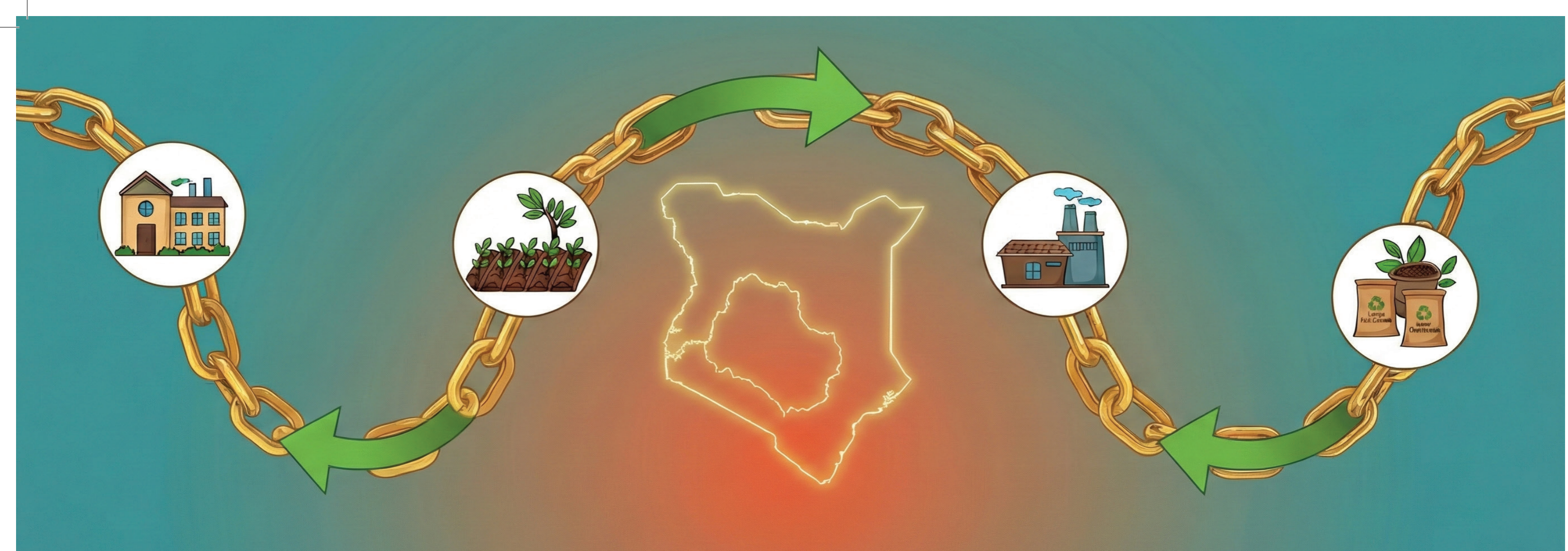
### 5.4: Challenges and Opportunities

Several challenges, which are often seen as opportunities, were identified:

- **Mindset Shift:** A major obstacle is the common belief that sanitation is only about traditional sewer systems, even though many people lack access. There is a need to promote faster adoption of new solutions and to understand that safe, clean sanitation can be achieved without sewer connections.
- **Policy and Regulation:** Streamlining and aligning existing policies and regulations is essential, especially the need for national guidelines for fecal sludge management across the entire value chain. The delay in passing the National Sanitation Management Policy was identified as a significant gap.
- **Perception and Cultural Resistance:** Cultural resistance to using products made from human waste (such as agricultural products and briquettes) remains a challenge, but a shift in perception is occurring as the economic value becomes clear.
- **Coordination:** A lack of institutional coordination among government entities and non-state actors causes duplication of resources and roles, which hampers sector progress and data centralization. Better coordination is crucial for effective implementation and information sharing.

## 5.5: Conclusion

The complexity of achieving comprehensive on-site sanitation was clearly established. The session's strategic imperatives include prioritizing context-specific and climate-resilient technologies, leveraging the transformative potential of mobile technology for service delivery, and ensuring genuine community engagement. Furthermore, success depends on strengthening institutional frameworks, enhancing capacity across all levels, and diversifying financing. The overarching goal is a shift toward a circular sanitation economy, centered on safe waste management, resource recovery, and economic opportunities, achieved through increased collaboration between government and non-state actors.



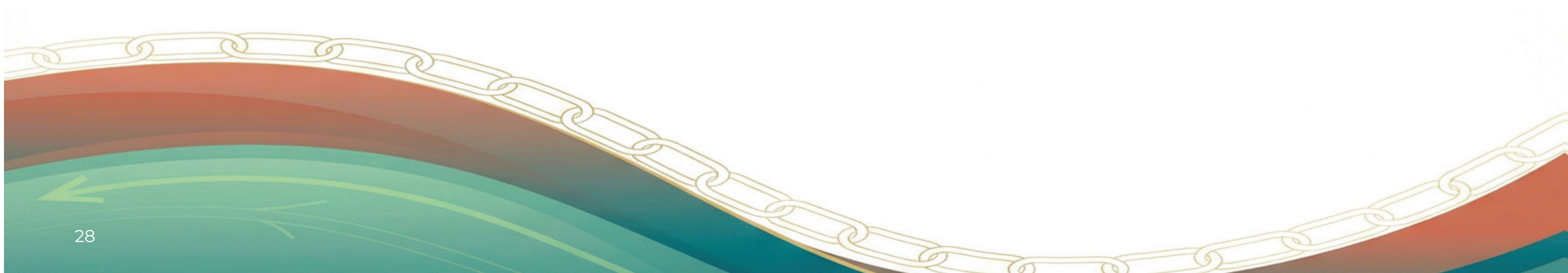
## Chapter 6: Technology and Sanitation Access

### Session Moderator:

Charlotte Mong'ina Maua, WASH Consultant and Director of Business Development: FINISH-Modial

### Panel Discussants

- Carol Odero: Pro-Poor Coordinator at Kisumu Water and Sanitation Company
- Kariuki Mugo: Lead Policy Analyst - WASH Governance at Water Aid



## 6.1: Introduction

**The panel session, “Technology Selection,” addressed critical factors for realizing universal sanitation access. The discussion argued for a broader definition of technology, stressing the need for holistic systems designed to both serve communities efficiently and protect public health and the environment.**

## 6.2 Key Themes and Discussions

### 6.2.1 The Challenge of Informality and Lack of Regulation

A central discussion point was how informality, lack of regulation, and the absence of clear standards act as major barriers to universal sanitation access. While many individuals do have some access to facilities, the lack of formal structures results in widespread informality in service delivery. This informality often stems from affordability issues, as households cannot afford regulated services and, consequently, depend on informal solutions. The panel stressed the necessity of establishing systems that enhance connectivity, monitoring, and feedback loops among government agencies, consumers, and service providers.

### 6.2.2 Appropriate Technology Selection and Implementation.

Reflecting on past mistakes—such as deploying incompatible sewer systems or VIP toilets in unsuitable, flood-prone areas—the panel stressed the critical importance of conducting thorough feasibility studies before any technology deployment. A key finding was that community engagement is non-negotiable for ensuring facility ownership and preventing underuse. Furthermore, establishing strong, early-stage monitoring systems is vital to track technology adoption and effectiveness, allowing for necessary adjustments. The panel also highlighted the fundamental requirement of strengthening the institutional capacity needed for the long-term operation and maintenance of these technologies.

### 6.2.3: Addressing Cultural Sensitivities

A unique and critical aspect discussed was the impact of cultural beliefs on technology acceptance. Examples were shared where culturally inappropriate technologies, despite their technical merits, faced low uptake due to local perceptions and traditions. This underscored the need for implementers to understand and respect the cultural background of communities when introducing sanitation solutions, thereby ensuring technologies are readily embraced.

### 6.2.4: Policy, Regulation, and Coordination

The panel stressed that sanitation issues are largely systemic, necessitating a comprehensive solution. The primary hurdle is not the lack of good policies or standards, but rather the difficulty of their effective enforcement, which is undermined by unclear institutional mandates and poor coordination among stakeholders such as utilities, environmental agencies, and public health departments. Participants advocated for a unified, national-level guiding framework, as existing county-level coordination efforts struggle with sustainability and inter-agency conflicts regarding levies and responsibilities. Furthermore, the idea of fostering self-regulation among informal service providers was proposed as a critical initial step toward market formalization.

### 6.2.5: Sustainability and Financial Flexibility

Concerns were raised regarding projects sustainability and the need for greater flexibility from financiers. It was suggested that funding agencies should conduct impact assessments—rather than solely relying on end-of-project evaluations—to better guide future initiatives. The panel urged utilities to exercise caution when accepting funding for projects that may not genuinely serve community needs or align with long-term sustainability goals, even when funds are readily available.

## 6.3: Conclusion

Achieving universal sanitation access, the panel concluded, demands a move away from a technological focus toward a **holistic, systems-based approach**. This requires immediate action on several fronts: addressing market **informality**, ensuring **cultural suitability** in technology selection, enhancing **institutional coordination**, and promoting greater **financial flexibility** in project funding. Ultimately, the goal is to leverage **stakeholder collaboration** to deliver sustainable and dignified sanitation for all.



## Chapter 7: Fostering Synergy in Sanitation Management

### Session Discussant:

Grace Wambui, Consultant at Dev-Afrique Development Advisors

### Panelists

- a) Dr Were: Technical University of Kenya
- b) Eng. Robert Gakubia: Founder and CEO, Blackburn Associates Ltd
- c) Victoria Adwet: Youth and Climate Advocate, President

The core discussion of the session centered on moving from **fragmented approaches to synergistic collaboration within the sanitation sector, primarily by strengthening accountability and coordination across all stakeholders in the service chain.**

### 7.1 Understanding the Sanitation Service Chain and Fragmentation

The session opened with a detailed examination of the sanitation service chain (collection, emptying, transportation, treatment, and potential reuse). A major challenge identified was the sec-

**tor's inherent fragmentation. Because sanitation involves numerous sectors and stakeholders—such as health, water, education, and agriculture—the lack of a shared mission and effective communication frequently leads to disjointed efforts, crippling efficient service delivery. The discussion underscored that understanding the connections along the chain and among actors is crucial, warning that poor engagement prevents a comprehensive approach to sanitation.**

## 7.2 Challenges in Coordination, Data, and Accountability

The core discussion addressed the persistent challenge of coordination and accountability. Participants observed that despite the involvement of numerous actors, effective mechanisms to hold them responsible for their specific roles within the broader sanitation system are often absent. The session highlighted the critical necessity of considering the entire sanitation service chain; for instance, merely constructing a toilet without planning for subsequent waste management steps (emptying and treatment) creates a significant service gap.

The discussion then stressed the urgent requirement for interventions to be evidence-based, which fundamentally depends on reliable and credible data. It was noted that data systems across different sub-sectors are frequently weak and uncoordinated, making it difficult to accurately measure progress, identify issues, and effectively guide interventions. Finally, operational transparency was identified as essential for enhancing overall sector performance.

## 7.3 Policy, Regulation, and Mindset Shifts

The discussion expanded to include the role of policy and regulation. Current national policies recognize the fragmented nature of the sector and suggest mechanisms for multi-sectoral coordination. However, implementing these policies encounters significant obstacles, primarily due to the lack of strong legal tools to formalize such coordination. Furthermore, variations in how sanitation is regulated and managed across various county governments further hinder collaborative efforts.

An important point raised was the need for a change in mindset among professionals and regulators. It was argued that a traditional focus only on sewerage systems ignores the widespread reality and importance of non-sewered or on-site sanitation solutions, which are often not adequately acknowledged or supported by current regulatory frameworks. This lack of recognition prevents the development of responsive and inclusive sanitation services.

## 7.4: Building Partnerships and Fostering Self-Regulation

Participants discussed practical strategies for fostering partnerships and synergy. A key suggestion was to first map and understand the activities of all players within the system, from waste collection to disposal and reuse. This comprehensive understanding is crucial for aligning activities and creating a smoother, more connected service flow. Utilizing existing collaborations, such as those between private sector entities and utility companies, was highlighted as a strong starting point.

The idea of self-regulation also emerged as important. It was noted that communities and private groups, even those without formal government recognition, can organize themselves to ensure public health and envi-

ronmental protection, provided they receive the necessary environmental support and capacity building. Examples of successful community-led initiatives demonstrated the potential for organized local groups to manage waste effectively and coordinate with authorities

## 7.5: Practical Examples and Way Forward

The session featured examples of community groups actively engaged in the sanitation value chain, including manual emptying, transporting waste to designated holding tanks, and liaising with local authorities. These case studies emphasized the critical need for context-specific solutions and underscored the importance of formally acknowledging the diverse array of non-utility service providers in the sector. The discussion further addressed challenges such as blocked sewer lines, inadequate infrastructure, and the high cost of formal sewer connections, thereby reinforcing the necessity of promoting affordable and accessible sanitation options for all.

It was suggested that a way forward involves:

- ✓ Mapping and identifying key players and stakeholders.
- ✓ Organizing these actors into networks to strengthen their collective voice.
- ✓ Engaging meaningfully with responsible institutions and duty bearers, advocating for responsive policies and budget allocations for sani-

tation at both national and county levels.

- ✓ Encouraging public-private partnerships to close gaps in service delivery and funding.
- ✓ Providing training and capacity building to ensure all stakeholders understand and follow best practices.
- ✓ Developing a clear institutional framework that identifies laws supporting collaboration and serves as a foundation for a unified approach.

## 7.5 Conclusion

The session emphasized that achieving effective sanitation requires a fundamental shift from isolated efforts to a deeply integrated and collaborative ecosystem. Transitioning from silos to synergy demands not only policy reforms and robust data systems but also a significant change in mindset among all stakeholders. Moving forward, it is essential to focus on mapping and organizing key actors, encouraging meaningful engagement with mandated institutions, and creating an institutional framework that supports collaborative action. Ultimately, sustainable sanitation will only be realized when the sector moves beyond simply coordinating activities and successfully institutionalizes a culture of true synergy, accountability, and shared ownership across the entire service chain.



## Chapter 8: Cultivating Excellence in On-Site Sanitation through Voluntary Self-Regulation

### Session Moderator:

Maureen Kirwa, WaSH Expert in Governance

### Panel

- a) *Benazir Omotto*: Acting Managing Trustee · Umande Trust
- b) *Muguna Edward*, Water and Sanitation Infrastructure Design Engineer at Wash Alliance Kenya.
- c) *Eng. Njaagah*: Sanitation governance expert and consultant.

## **The session focused on the important topic of “Cultivating Excellence in On-Site Sanitation through Voluntary Self-Regulation.”**

**The discussion explored various aspects of on-site sanitation, highlighting the significance of self-regulation, stakeholder participation, and effective motivational strategies**

### **8.1: Introduction**

Voluntary self-regulation was described as a complementary method to government oversight, where individuals, communities, and stakeholders proactively work to maintain standards in their sanitation efforts. This approach is considered essential for ensuring the sustainability of initiatives and promoting collective responsibility within the sector. Main discussion points included raising awareness, actively involving stakeholders, and using recognition and incentives.

### **8.2: The Importance of Self-Regulation**

The session highlighted that individual responsibility is the bedrock of success in on-site sanitation. Because proper function depends on users across the entire value chain, self-regulation is essential for preventing system failure through consistent use and maintenance. This approach does more than

preserve infrastructure; it fosters awareness of a healthy community, reduces dependence on external enforcement, and directly mitigates risks associated with poor sanitation, including health deterioration and economic losses.

### **8.3: Cultivating Awareness**

The discussion explored innovative awareness-raising methods, emphasizing that true buy-in requires community inclusion from the planning to the implementation stages of sanitation projects. Training must extend beyond technical skills to encompass the larger policy frameworks, enabling communities to clearly see their contribution to the overarching goals. Facilities like bio-centers were recommended as effective information and knowledge-sharing hubs, rather than simply endpoints for disposal. To amplify outreach, participants suggested leveraging global platforms like World Toilet Day and Global Handwashing Day, alongside integrating the Sustainable Development Goals (SDGs) into public discourse. Crucially, the need for continuous capacity building was highlighted, acknowledging shifting community dynamics and the ongoing demand for education on safe protocols for every step of the on-site sanitation process.

## 8.4: Stakeholder Engagement and Partnerships

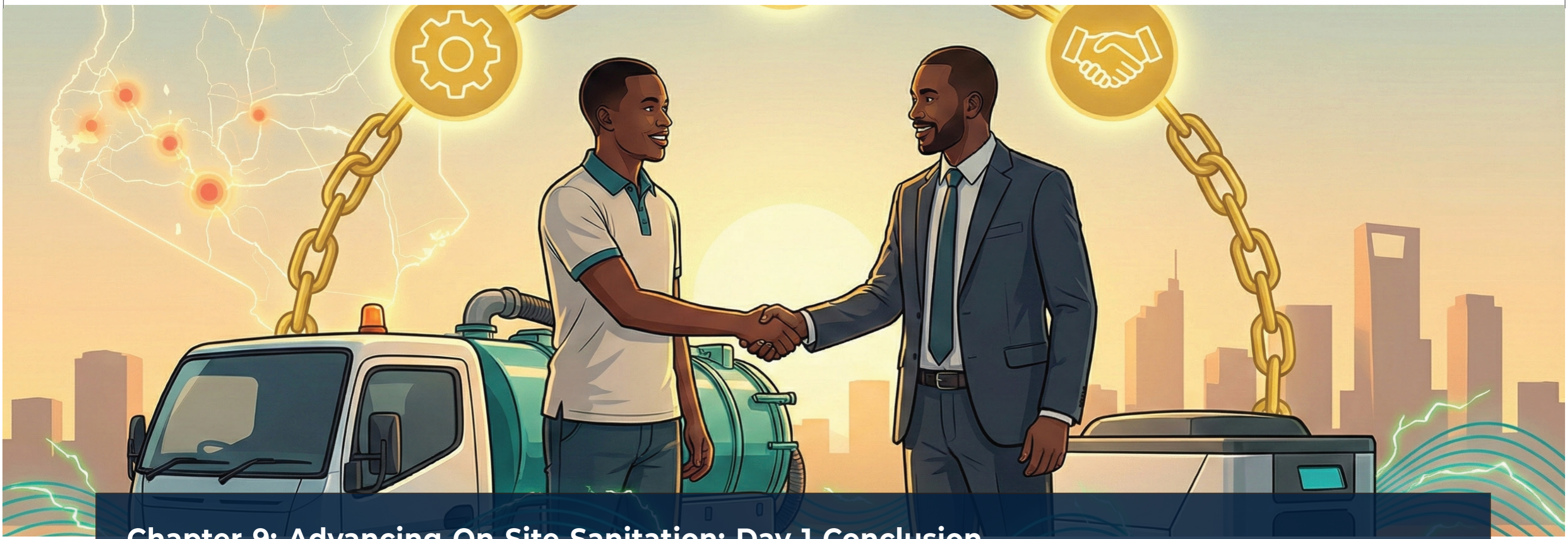
The session examined successful **stakeholder-led approaches and partnerships**, highlighting the **community as a critical, yet often overlooked, stakeholder**. It was argued that even well-designed solutions can fail due to cultural conflicts or a fundamental disconnect from community needs. Therefore, involving communities as both **consumers and primary beneficiaries** is essential for success. Further, the discussion emphasized the need for improved **data sharing and coordination** among different stakeholders, as conflicting data can obstruct effective planning and execution. The role of **coordinating bodies** in uniting stakeholders and establishing harmonized reporting systems was deemed crucial for overcoming these obstacles.

## 8.5 Motivating Stakeholders: Recognition and Incentives

A central theme was the critical role of motivation in cultivating self-regulation among stakeholders. Effective strategies proposed included formal recognition of work, such as certificates and small grants, as well as capacity-building through specialized training. These incentives are essential for fostering a profound sense of ownership, linking individual pride and responsibility directly to improved sanitation outcomes. Furthermore, incentives serve to mitigate financial barriers, thereby promoting the wider adoption of advanced sanitation technologies. The session also tackled the structural issue of unregistered private sanitation operators, emphasizing that successful integration requires targeted programs for capacity development and community-level public health education.

## 8.6: Challenges and Next Steps

Addressing major obstacles like inadequate investment, poor maintenance, and a lack of awareness, the session urgently called for establishing a robust national self-regulation framework—deemed essential for streamlining efforts and ensuring accountability—and stressed that meeting comprehensive sanitation goals requires multi-sectoral approaches led by public health, culturally appropriate solutions, and effective local communication. The proceedings closed with a clear mandate to formalize this self-regulation framework, significantly boost capacity building across all levels, and prioritize behavior change communication and community engagement to ensure long-term sustainability, especially within rural and informal settlements.



## Chapter 9: Advancing On-Site Sanitation: Day 1 Conclusion

**Session Moderator:**

Patrick Alubbe: Executive Director of the [Kenya Water for Health Organization \(KWAHO\)](#)

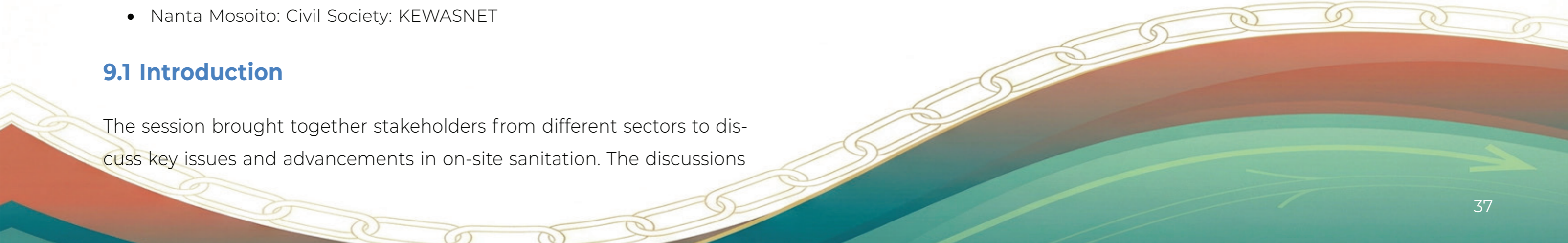
**Panelist**

- Johnson Abou: Manual Emptier
- Miriam Wanjiku: Private sector: Kenya Cast Products
- Francis Maluki: Regulator: WASREB
- Nanta Mosoito: Civil Society: KEWASNET

### 9.1 Introduction

The session brought together stakeholders from different sectors to discuss key issues and advancements in on-site sanitation. The discussions

underscored the need for collaboration, effective regulation, and innovative solutions to deliver sustainable and dignified sanitation services. The session highlighted the importance of a structured process for industry development.



## 9.2: Key Discussions and Outcomes

### 9.2.1: The Role of On-Site Sanitation Service Providers

The session focused on the experiences and challenges faced by on-site sanitation service providers, especially those involved in manual pit emptying. Discussions highlighted concerns about how affordable housing initiatives affect their work, as new developments sometimes lead to the closure of traditional pit latrines, thereby decreasing the need for manual services. A key point raised was the necessity for utility companies to collaborate with these service providers to create designated waste disposal sites, ensuring proper and safe waste management. The importance of providing dignified work for these essential service providers was strongly emphasized, supporting their integration into formal sanitation systems.

### 9.2.2 Addressing Challenges in On-Site Wastewater Management

The session also explored the challenges faced by companies providing on-site wastewater management solutions, such as biological septic tanks. A major concern discussed was the prevalence of unregulated and sub-standard service providers, often called “unqualified providers,” who offer cheaper but ultimately ineffective solutions. This lack of regulation dam-

ages legitimate businesses that invest in proper procedures and quality services, which can lead to a negative perception of effective technologies like biodigesters when they are improperly installed. The need for strong regulation in the on-site sanitation sector was a recurring theme, with participants emphasizing the importance of clear standards and mechanisms for customers to identify and select credible service providers.

### 9.2.3: The Importance of Regulation and Self-Regulation

**Representatives from regulatory agencies acknowledged the increasing need for effective oversight in the sanitation sector.**

**While recognizing their limited operational capacity, they showed openness to the idea of self-regulation. The concept of mutual accountability mechanisms was proposed, where all stakeholders—private sector, government, and others—commit to agreed standards and hold each other accountable. It was noted that regulation often becomes necessary when self-regulation fails, emphasizing the responsibility of industry players to maintain quality and ethical practices. The discussions highlighted that self-regulation, supported by regulatory bodies, and could foster an environment conducive to sustainable sanitation services.**



### 9.3: Conclusion and Future Outlook

The session concluded with a powerful mandate: the time for incremental change is over. The robust discussions have successfully laid the foundation for a new era of collaborative governance in the sanitation sector, establishing a clear path toward a framework of self-regulation and mutual accountability. We leave today not just with new contacts, but with a shared commitment to immediate action and a clear understanding that future progress hinges on the strength of the relationships and networks we build from this moment forward. We look forward to continuing this vital work tomorrow, transforming today's vision into the sector's regulatory reality.



## Chapter 10: Harnessing Self-Regulation and Collaboration for a Resilient On-Site Sanitation Sector: Opening Session

### Opening Session

#### Symposium Moderator:

Patrick Alubbe Executive Director of the Kenya Water for Health Organization (KWAHO)

#### Session Panelists:

- Chemeril Chepyegon: Engineer at the Ministry of Water, Sanitation, and Irrigation, State Department of Sanitation
- Caroline Odero: Manager, Kisumu Water
- Collins Owino: Quercus Group
- Peter Hamisi: Chairman of the Association of Private Sector Sanitation Actors

This section summarizes the key takeaways and insights from day one, highlighting the essential role of on-site sanitation and emphasizing the push for greater self-regulation and stronger, more effective collaboration across the sector.

### 10.1: Remarks and Context Setting

Setting an immediate tone of engagement, the session opened with an address that posed a compelling question: How do we balance risk-taking with caution? This line of inquiry subtly connected to and reinforced the need for innovation within the sanitation sector.

### 10.2: Highlights: Towards Self-Regulation

A key segment presented the highlights from the previous day's panel discussions, notably the crucial focus on sustainable sanitation futures and self-regulation for on-site sanitation.

### 10.3: Key Agreements and Contributions:

- **Definition of Self-Regulation:** It was clearly established that self-regulation involves the industry collectively agreeing on standards, tools, operational procedures, and, where necessary, measures for accountability.

- **Complementary Role:** Self-regulation is meant to support, not replace, government regulation, especially in complex systems like on-site sanitation with multiple stakeholders. Its goal is to assist the government in identifying entities that need regulation.
- **Concerns about Marginalization:** The importance of guaranteeing universal representation within self-regulation frameworks was asserted, coupled with a firm focus on proactively preventing marginalization.
- **Civil Society's Role:** Civil society organizations (CSOs) are currently undertaking various forms of self-regulation, including annual reporting and peer learning. A significant gap was identified, however, regarding the authority necessary to impose punitive measures when industry standards are violated.
- **Private Sector Innovation:** It was recognized that the private sector is a key driver of innovations, frequently moving ahead of current government regulations. This progress requires active collaboration, with the private sector sharing its advancements to inform and shape the development of appropriate government standards.
- **Mapping Service Providers:** A key challenge is the precise identification and mapping of legally mandated small-scale sanitation service providers. Addressing this requires simultaneously understanding their regulatory concerns and fostering their participation in self-regulation discussions.

**The day one discussions reinforced the central theme of self-regulation, highlighting several critical aspects:**

- **Inclusivity and Marginalization:** Discussions addressed the specific challenges faced by young women and girls in the sector, underscoring the need to prevent the marginalization of certain groups.
- **Community Empowerment:** Self-regulation was presented as a tool to empower communities, enabling them to oversee their own activities and foster mutual accountability.
- **Adherence to Standards:** The address focused on adherence to policy standards and how sector networks can effectively support self-regulation through peer engagement and annual performance reports.
- **Government’s Enabling Role:** The crucial importance of government providing an enabling environment was emphasized, especially for community-led market development and catalysis in sanitation.
- **Key Challenges:** The discussion also identified significant hurdles, including poor sector coordination, the complex multi-layered permitting system, and the absence of a standardized regulatory framework.

**10.4: Deep Dive: Developing the Self-Regulation Framework**

The discussion shifted toward creating a self-regulation framework, including insights from different sector representatives.

**10.4.1 Defining self-regulation in sanitation from different perspectives:**

- **As a regulation:** It was emphasized that **self-regulation supports, but does not supplant, the primary regulator’s role.** The primary regulator must provide self-regulating entities with the essential tools to succeed.
- **Business development perspective:** From a business development perspective, self-regulation is viewed as a framework for promoting sustainable development. Two models were suggested: a market-driven approach focused on business growth, and a data-driven learning approach that involves stakeholders in shaping the regulatory structure
- **Involving actors:** In ensuring compliance, such as the use of personal protective equipment (PPE), proper waste disposal, and health prioritization etc improves the business environment through peer-to-peer engagement. This self-compliance informs the regulator’s key performance indicators (KPIs)

**10.5: Target Audience and Value Chain:**

- The target audience for self-regulation includes the entire sanitation value chain, from the toilet (standards, innovations) through transport (emptying technologies, compliance) to tipping or dumping sites (treatment versus open disposal).
- A critical need was recognized to identify and map all actors across these supply chains to guide regulatory strategies.



**10.5.1: Government Perspective:** A representative from the Ministry asserted that self-regulation is critical and timely, especially in contexts where governmental reach is constrained. Due to the extensive prevalence of on-site sanitation, this approach is considered highly effective.

**10.5.2: Service Provider Expectations:** Service providers emphasized that achieving success requires several key support structures, including proper tools, standardized reporting templates, and clear performance metrics, noting the value of current efforts to develop sanitation Key Performance Indicators (KPIs). They also stressed the necessity of a clear delegation framework, suitable contracts, and defined monitoring responsibilities for delegated third-party service providers, and recognized the importance of mentoring programs for smaller utilities

**10.6: Integrating into Existing Systems:** Acknowledging existing self-regulatory efforts, the focus was placed on developing customer-centric approaches, technical support, and business development capacity for service providers. The objective is to simultaneously enhance service provider profitability and guarantee regulatory compliance.

**10.7: Strengths, Limitations, and Consumer Engagement:** While the potential for a significant developmental shift was identified as a core strength, the sector is constrained by major limitations, including inconsistent enforcement, regulatory ambiguity, and the lack of comprehensive sanitation performance metrics spanning the entire value chain (containment, transport, treatment, and recovery). Addressing the disconnect between the needs perceived by stakeholders (e.g., PPE) and the actual

adoption by actors requires a shift in approach. Therefore, conducting a meticulous risk analysis and ensuring direct engagement with actors are crucial steps to inform effective regulations and move beyond reliance on assumptions.

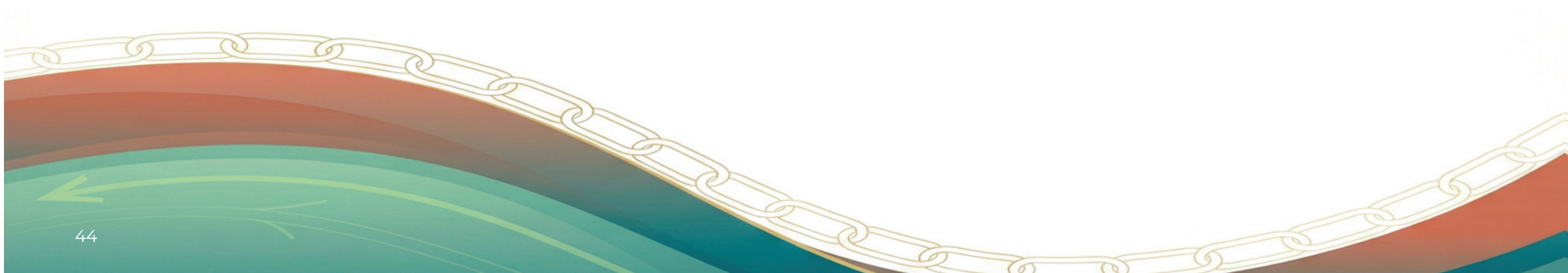
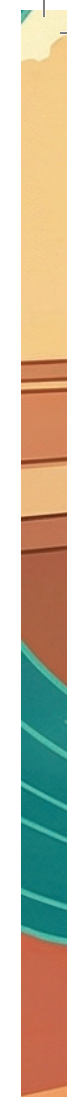
**10.7.1: The vital role of consumers:** Self-regulation framework for consumers was emphasized, with a focus on strategies to leverage their support. As sanitation fundamentally starts at the household level, behaviors such as waste segregation directly affect the subsequent quality and reusability of fecal sludge. Thus, active household engagement in discussions about fecal sludge treatment and the promotion of hygiene are considered critical.

## 10.8: Concluding Remarks and Way Forward

The session concluded by emphasizing the need for a resilient sanitation system that ensures dignity across the entire value chain (protection, transportation, treatment, and reuse). The significance of the 'software' aspect—specifically hygiene promotion and behavioral change at the community level—was particularly highlighted as vital for dignifying the use of sanitation facilities

The two sessions described:

- 1. The Power of Partnerships:** Using sector dialogue to promote effective collaboration in on-site sanitation.
- 2. Developing voluntary self-regulation:** defining key principles, designing strong governance frameworks, and overcoming challenges.





## Chapter 11: Increasing the Depth of Self-Regulation in On-Site Sanitation and Waste Management

**Session Moderator:**

Mercy Kieni – Lead, Public Health Engineering Team at Oxfam Kenya

**Panelists**

- a) Martha Keega: Water, Sanitation, and Hygiene Independent Consultant
- b) Prof. Mohamed Karama: Professor of Public Health and Epidemiology
- c) Francis Maluki: Water Engineer at the Water Services Regulatory Board

### 11.1: Introduction to the Session

The session was convened to discuss comprehensive and realistic strategies for strengthening self-regulation in both on-site sanitation and broader waste management efforts. The objective was to analyze the intricacies of existing frameworks and current challenges, ultimately identifying innovative solutions necessary for achieving better results in these critical sectors.

## 11.2: Understanding On-Site Sanitation and Existing Frameworks

The session aimed to explore comprehensive and realistic strategies for enhancing self-regulation in both on-site sanitation and overall waste management. The discussion was designed to examine existing frameworks, current challenges, and innovative solutions to achieve improved outcomes in these vital areas.

## 11.3: Balancing Ideal Standards with Practical Implementation

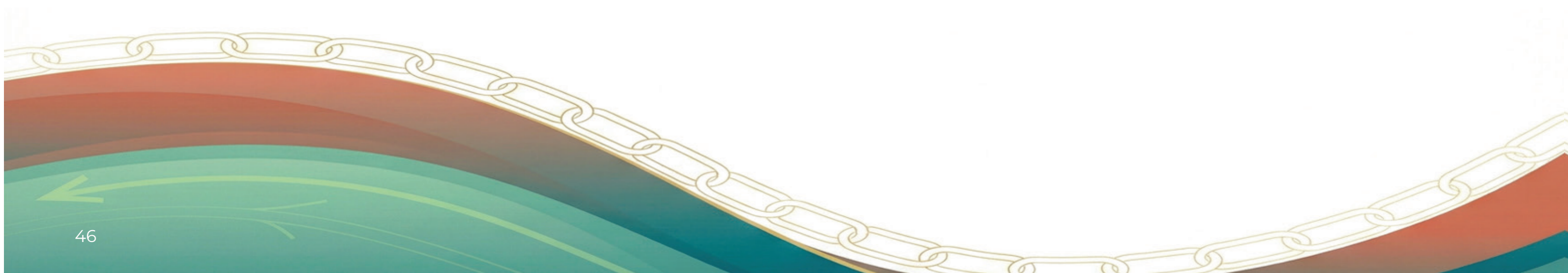
The core discussion addressed the delicate balance between ambitious sanitation standards and real-world feasibility, given varied geographic, cultural, and socio-economic settings. The analysis recognized past practices and community perceptions as critical to facility adoption. It emphasized that strong advocacy and positive incentives are superior to punitive measures for fostering community support. Achieving self-regulation demands commitment from all stakeholders: government agencies, civil society, and local communities. A recurring theme was the need for standards to be both affordable and culturally appropriate.

## 11.4 Technical Benchmarks and Performance Measures

The discussion focused on linking technical standards with on-the-ground implementation. While emphasizing the need for strict standards (rigor), the group agreed they must be realistic and adaptable to local contexts. For example, standards for facilities like composting latrines must incorporate affordability and cultural appropriateness, such as addressing the need for separate household facilities. The session proposed monitoring through utility and county government inspections, complemented by the use of KPIs to track customer satisfaction and facility performance. It was stressed that true self-regulation requires a collective change in operational culture and a shared sense of responsibility across all stakeholders.

## 11.5 Peer-to-Peer Mechanisms and Inclusivity

The discussion shifted to leveraging peer-to-peer mechanisms for voluntary self-regulation. This requires industry stakeholders to jointly agree upon and subscribe to common performance standards and practices. Community health volunteers and local leaders are essential for monitoring adherence. There was a strong call for equity and accessibility, urging inclusive processes that involve all stakeholders—especially marginalized groups, women, and persons with disabilities. This means designing standards to be universally manageable (e.g., matching waste container design to lifting capacity) and ensuring information is accessible through alternative formats, such as Braille.



## 11.6 Incentives and Sustainability of Self-Regulation

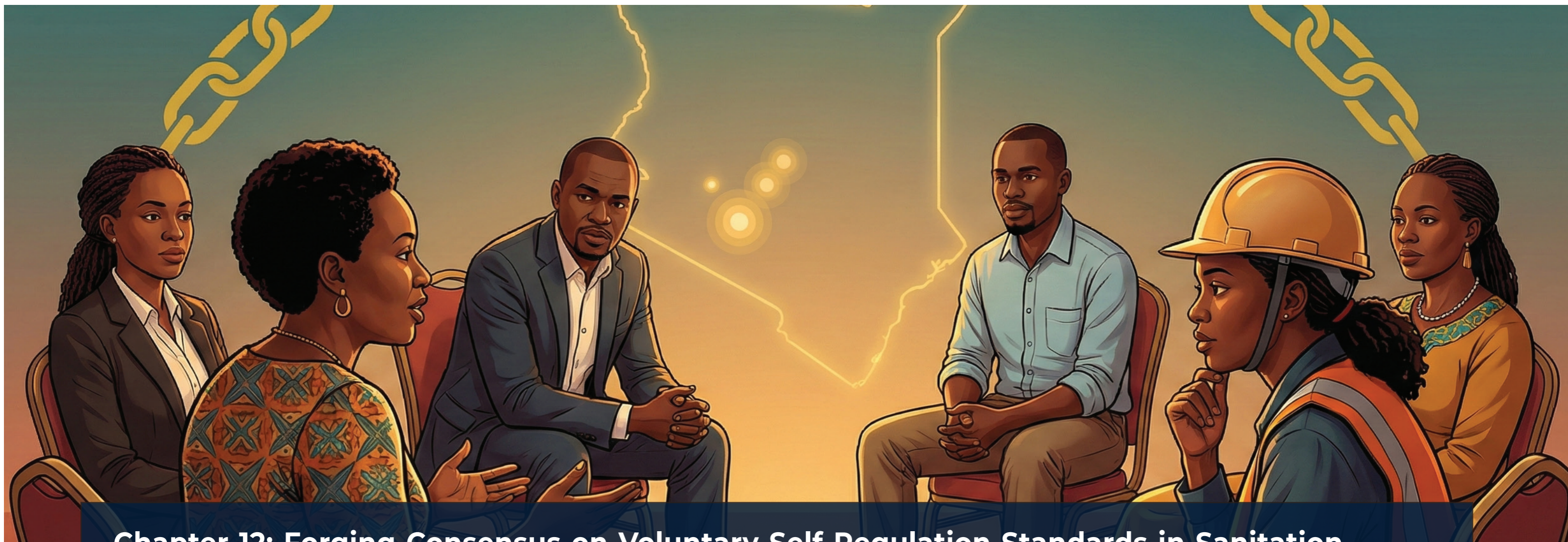
To ensure self-regulation is sustainable, the discussion explored various incentives. A core strategy is integrating sanitation with economic opportunities, for example, by allowing individuals to manage sanitation blocks for income or by offering public recognition to homes with excellent sanitation. For utilities, meeting self-regulatory standards could increase industry credibility, open doors to better financing (loans, grants), and facilitate engagement with development partners. For the private sector, compliance can be leveraged through licensing and approval requirements. A strong, market-based driver is the cultivation of customer demand for service providers who meet these standards.

## 11.7 Addressing Social Norms and Cultural Perceptions

The session acknowledged the enduring stigma linked to sanitation work. To legitimize the sector, it was proposed that stakeholders engage in open conversations, reframe sanitation as an economic opportunity, and prioritize professionalizing the services. The creation of professional associations by private sector organizations was highlighted as a successful step in mitigating stigma. The sector's significant economic potential, especially its role in the circular economy, was underscored as a vital factor for elevating its status and guaranteeing its sustainability.

## 11.8 Governance and Continuous Improvement

Effective governance structures for peer-to-peer accountability are crucial, and must be founded on trust, transparency, and responsibility. Collaboration among national governments, county authorities, private sector groups, and local communities is essential. For continuous learning and improvement, key strategies include establishing centers of excellence, encouraging benchmarking among peers, and leveraging technology (e.g., mobile applications for monitoring and data collection). The overarching message is that a thoughtful, inclusive, and adaptable approach is required to achieve sustainable and broadly accepted self-regulation in the sanitation sector.



## Chapter 12: Forging Consensus on Voluntary Self-Regulation Standards in Sanitation

### Session Moderator:

Margaret Maina; WaSH Expert: CEO WIWAS

### Panelists:

- a) Caroline Omolo, Water Resource Recovery Operations Manager at Kisumu Water & Sanitation Company Limited
- b) Christabell Ashiono: Legal Officer & Board Secretary at Kakamega County Water and Sanitation Company
- c) Dr. Oyaya, Director of IDIA and Sanitation Governance Expert

## 12.1: Introduction

The session addressed the critical need to elevate sanitation in national conversations, shifting away from its historical neglect. A key goal was initiating a collaborative dialogue to establish a framework for voluntary self-regulation in the sanitation sector. The moderator, a water chemist and sanitation expert, emphasized the challenges posed by low sewer coverage (just 16% nationally, with 26 major urban centers lacking sewer systems) and the resulting widespread dependency on alternatives like septic tanks. This context emphasized the urgency for collective action and standardized procedures among all sanitation stakeholders.

## 12.2 Key Discussions and Expert Insights

The session featured multiple experts who shared their perspectives on the challenges and opportunities in sanitation governance and practices.

### 12.2.1: Redefining Wastewater Management

A water resource recovery expert outlined the strategic organizational shift from “wastewater management” to “water resource recovery operations.” The purpose of this change is to destigmatize the profession while underscoring the potential for recovering valuable resources from used water, encouraging recycling and reuse. This expert noted that adopting this new perspective is key to driving innovative thinking and formally

viewing “wastewater” as a valuable resource.

### 12.2.2 The Importance of Governance and Self-Regulation

A sanitation governance expert stressed the fundamental role of strong governance frameworks in enabling voluntary self-regulation. Core principles, informed by constitutional and international laws, were identified:

- **Rule of Law:** Responsibility in implementing and complying with regulations.
- **Accountability:** Promoting shared responsibility, where individual actions are acknowledged for their group impact.
- **Participation:** The necessity of full engagement in decision-making.
- **Inclusivity:** Meeting the needs of all community members, especially vulnerable groups, to secure a clean environment.
- **Legitimacy and Credibility:** Built on transparency, due process, and data-driven decision-making.

The expert asserted that true legitimacy requires policies and actions that genuinely serve the needs and rights of the people, striving for **“safely managed sanitation.”** Finally, incentives are crucial to driving voluntary self-regulation, as relying exclusively on punitive measures is often ineffective.

## 12.3: Elements of a Robust Framework

Four core elements are critical for establishing a strong self-regulation framework (Section 12.4):

- i. Regulatory Framework:** Reviewing current mandates for sanitation, from constitutional provisions to specific laws (like the Water Act), is necessary to identify opportunities for self-regulation.
- ii. Institutions:** Effective coordination requires clarity on the roles of various licensing and oversight bodies (e.g., county governments for permits, health departments for licenses, utilities for disposal, NEMA for transport).
- iii. Instruments:** This includes systems, standards, and reporting platforms (such as the Water Services Regulatory Board's sanitation KPIs). The discussion highlighted a need for standardized instruments tailored for the private sector and small-scale service providers outside the utility sector.
- iv. People:** Engaging and recognizing all participants, particularly informal service providers, is paramount. Encouraging ownership and participation requires addressing their needs through training, finance access, and linking compliance to **direct benefits** (e.g., subsidized licenses, vaccinations, and credit access).

## 12.4: Practical Approaches to Self-Regulation

Utilities have adopted several practical steps to integrate informal sanitation actors into their operations:

- **Engaging Manual Emptiers:** The utility achieved a collaborative solution by formally recognizing manual emptiers and providing clear guidelines. This established standards for waste separation and appropriate disposal, tackling a previously unregulated issue.
- **Managing Exhauster Services:** Licensing exhausters, requiring waste quality checks, and tracking the source of industrial waste have been key to controlling treatment plant inflows.
- **Partnering on Innovative Solutions:** Collaborating with providers of container sanitation solutions (like container-based toilets in informal settlements) has significantly reduced environmental pollution and public health threats (e.g., cholera).

These steps confirm that utilities function as overseeing bodies for a range of actors, fulfilling their regulatory mandate.

## 12.5: Challenges and Future Directions

The session identified several ongoing challenges and key future directions:

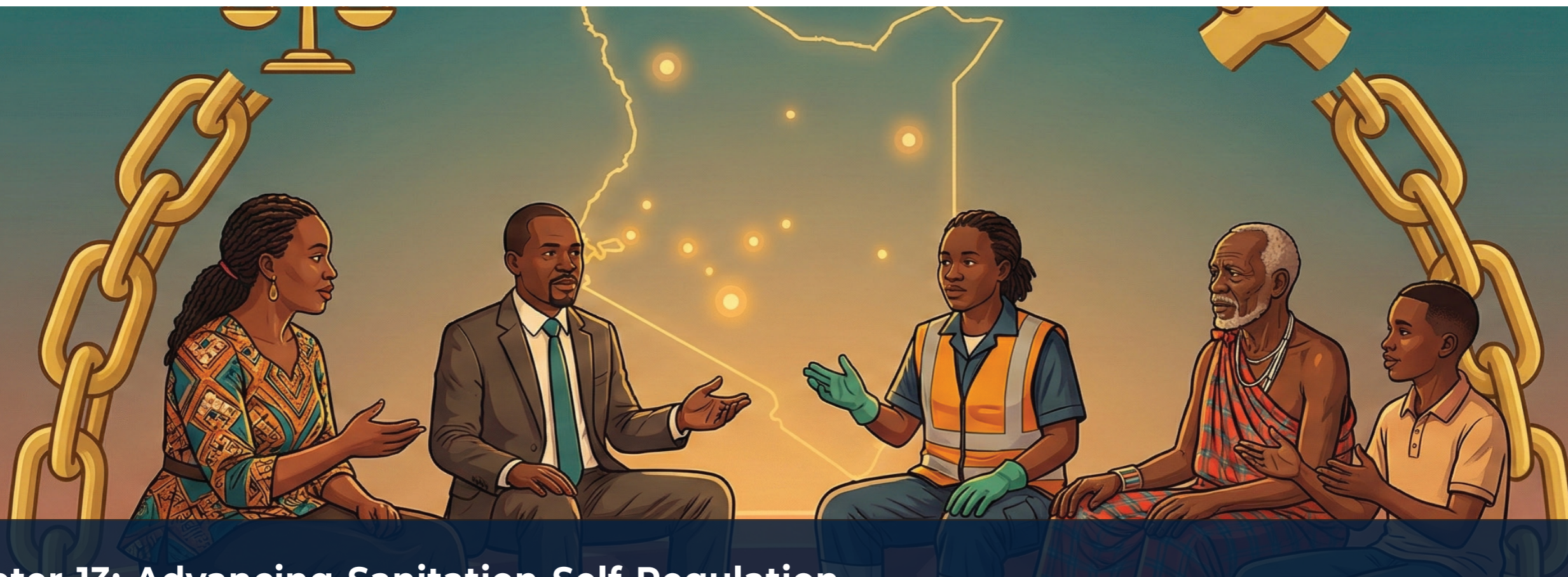
- **Harmonize Regulations:** There is a pressing need to consolidate the multiple existing regulatory bodies and policies (county, NEMA, WRA, utilities) to achieve a clearer, more accountable, and streamlined system.
- **Provide Government Support:** A community representative emphasized that government must provide real financial backing for community-led sanitation efforts, stating that communities are ready to

help but need more than just personal protective equipment.

- **Empower Local Actors:** The discussion stressed the importance of enabling local service providers to take ownership and create their own solutions, rather than waiting for government direction. This involves formally recognizing their work and elevating their input.
- **Protect the Environment:** In response to a concern about industrial water pollution, the utility affirmed its dedication to safeguarding water sources. This involves ensuring treatment plants run effectively, strictly monitoring discharges, and collaborating with communities and local authorities to stop blockages and improper dumping.

## 12.6: Conclusion

The main takeaway from the session is that improving sanitation demands a change in mindset, emphasizing voluntary self-regulation based on governance, accountability, and inclusivity. By formally engaging all players in the sanitation value chain, providing the right incentives, and encouraging collaboration, the sector can build a more credible, legitimate, and sustainable future, ultimately achieving safely managed sanitation for all. Continued stakeholder participation is vital for applying and refining these strategies.



## Chapter 13: Advancing Sanitation Self-Regulation

### Session Moderator:

*Shivaji Malesi Chief Executive Officer, KEWASNET*

### Panelists:

- Eng. Robert Gakubia: Director, Blackburn Associates Ltd.
- Helen Ajiambo Mukanda (Hsc), Executive Director of Grow Against Poverty Kenya
- Dominic Kiogora: Lecturer at Meru University and Sanitation Expert

Focusing on sanitation self-regulation, the session identified key challenges and suggested ways to build a better, more sustainable future. The constant message was the need to rely on individual responsibility, increase community involvement, and build strong partnerships.

### 13.1 Key Discussion Points

The discussion began by examining groups historically excluded from sanitation conceptualization and conversations, particularly women and children. While significant progress has been made in amplifying these voices, a critical gap persists: the failure to adequately include the knowledge of the elderly. This oversight leads to the loss of valuable indigenous and traditional knowledge regarding sustainable resource use and sanitation innovations. The conversation also highlighted how technology influences cultural acceptance and the necessity of actively monitoring its adoption within communities. A recurring theme was the difficulty caused by fragmented efforts among community development actors. There was a strong call for improved collaboration and networking to create a standardized approach for addressing cultural issues and

ensuring effective accountability in sanitation efforts.

The session explored the technical and implementation challenges of establishing clear, measurable, and contextually appropriate self-regulating standards for sanitation. A key insight was that societal behavior, profoundly influenced by individual actions, plays a vital role. The historical “privatization” of sanitation, often viewed as shameful and an individual burden, has resulted in it being a “hidden agenda” in public discussions and planning. The concept of “elitist sanitation” (sanitation as a service for a select group) versus “enforced sanitation” (for the general population) was discussed as a divisive issue that requires reconciliation for effective self-regulation.

The discussion highlighted that self-regulation extends beyond mere legal compliance; it is deeply rooted in personal values and behavioral changes. The idea that “morality is above the law” resonated, emphasizing that adherence to a shared understanding of what constitutes “good sanitation” is essential. A challenge was issued to the attendees to collectively determine a “true north” for sanitation—a clear, inspiring vision of a successful, inclusive sanitation system that genuinely “leaves no one behind.”

## 13.2 Overcoming Challenges: Strategies for Policy Implementation

The examination of strategies for overcoming cultural barriers and effectively leveraging technology revealed several key actions. These include segmenting audiences for targeted advocacy and capacity building, training community groups to articulate concerns effectively during public participation, and actively pursuing investment to minimize financial barriers in the sanitation sector. Recognizing that sanitation often lacks priority at the government level, sustained effort from civil society through networking and fundraising is necessary.

### 13.2.1 Harnessing Youth and Traditional Knowledge

Recommendations underscored the critical role of youth involvement, primarily through integrated Menstrual Hygiene Management (MHM) initiatives. By combining education with direct investment in sanitation infrastructure, this approach fosters a sense of responsibility and ownership, positioning young people as future advocates and contributors to societal well-being.

To effectively integrate traditional knowledge, participants recommended actively engaging elders as recognized experts. Their unique community and cultural insights must be valued. The study highlighted the need for combining new technologies with traditional practices and establishing clear mechanisms for knowledge transfer to successfully bridge the generational knowledge gap.

### 13.2.2 Integrating Utilities into Self-Provision Models

The discussion centered on integrating service providers (utilities) into self-provision models, guided by the principle that ‘what gets measured gets done.’ To operationalize this principle, utilities were encouraged to:

1. Map their service areas comprehensively.
2. Identify suitable technologies for different contextual situations.
3. Understand the diverse stakeholders within the sanitation service chain.

Defining expected standards and outcomes and making this information publicly accessible is critical for developing a more informed and engaged citizenry. This populace will be better equipped to demand accountability and actively support the self-regulatory process.

### 13.3 Conclusion: A Holistic Path to Self-Regulation

The session highlighted that sanitation self-regulation requires a holistic approach that transcends traditional boundaries. This necessitates a collective change in mindset and behavior, renewed respect for indigenous knowledge, and a strong effort to build collaborative partnerships across all sectors and generations. The journey toward a 'true north' in sanitation is a shared responsibility, rooted in transparency, dignity, and an unwavering commitment to leaving no one behind.

An illustration showing five people (three men and two women) sitting in a circle on chairs, engaged in a discussion. The background features a map of Kenya with glowing points and icons of a scale of justice and a hand holding a chain. The scene is lit with warm, golden light.

## Chapter 14: Foundation of Trust in Developing Voluntary Self-Regulation that Can Transform On-Site Sanitation in Kenya

### **Session Moderator:**

*Dorris Kirui: Gabtsy*

### **Panelists**

- a) Malesi Shivaji: *Chief Executive Officer, KEWASNET*
- b) Mary Muriuki: *Brooms Limited*
- c) Ochieng Oloo: *Founder and CEO of Think Business Limited*

**The central focus of the session was to explore the potential of voluntary self-regulation in on-site sanitation, identify the roles of core stakeholders, and establish a clear collaboration strategy to promote an effective regulatory framework.**

## 14.1 Elements of Sector-Driven Self-Regulation

One expert emphasized five essential elements vital for sustainable self-regulation.

- **Ownership:** Stakeholders must be engaged with and relate to the approach, content, and outcomes of self-regulation.
- **Standards:** Clear criteria are necessary to define quality throughout each stage of the sanitation value chain.
- **Accountability:** Mechanisms for peer or lateral monitoring are essential, given the inherent assumption of mutual ownership and established standards.
- **Capacity:** Self-regulation involves a mechanism for ongoing self-improvement among all actors, aiming to raise the standards.
- **Oversight:** A strong system must be established to ensure standards are maintained, growth is deliberate, and complete compliance with terms and conditions is achieved.

## 14.2 Challenges in Defining Roles and Responsibilities

A major challenge identified was the lack of understanding among sector participants about their roles and responsibilities. Practical examples, such as the high cost of new exhaust trucks compared to subsidized public sector prices, were provided to show the financial disincentives for private sector players to adopt better practices. The importance of motivating and

appreciating those engaged in the demanding task of waste management was highlighted, along with the burden of regulations that can sometimes hinder rather than help.

## 14.3 Collaborative Self-Regulation Framework

The importance of benchmarking and competition to drive self-regulation was emphasized. Drawing parallels from the banking sector, it was suggested that creating a system where industry players compete based on service quality and adherence to standards could significantly improve practices. Rewarding the best performers through awards or recognition can motivate voluntary improvement beyond mandatory regulatory requirements. It was stressed that such initiatives need to be credible and rewarding to ensure buy-in from stakeholders.

## 14.4 Community Mobilization and Equity

Civil society organizations play a vital role in mobilizing and empowering communities. It was emphasized that having a clear and standard definition of sanitation is crucial to ensure equity, addressing both piped and on-site solutions. The issue of sanitation being seen as a “shameful” and private matter was discussed, with calls for civil society to educate communities about sanitation as a constitutional right, promoting collective action and accountability.

Ensuring inclusivity and equity for marginalized and vulnerable populations requires going beyond current self-reporting measures and involving the people themselves in setting reasonable standards.

## 14.5 Technology and Innovation

The integration of technology and innovation was considered essential for better defining, monitoring, and enforcing roles and responsibilities. Suggestions included using technology to identify pollution hotspots and promote collaboration between the private sector, government, and public health. However, the high costs of implementing such technologies and the need for government support were identified as significant barriers.

## 14.6 Resolving Key Roadblocks

Several possible barriers to effective collaboration were identified:

- **Divergent interests:** Different market players have varying concerns, making alignment difficult.
- **Cost implications:** The cost of adopting better practices or equipment can be a significant barrier, especially for the private sector.
- **Lack of precise regulation:** Inconsistent or missing regulations can cause confusion and misalignment among stakeholders.

To address these issues, it was suggested that the government must play its central role in developing transparent and equitable regulations that serve as a focal point for all stakeholders. Promoting a culture of collaboration and knowledge sharing requires ensuring that all participants see a direct benefit in engaging, which can be achieved through competitive systems and incentives.

## 14.7 Conclusion and Recommendations

The session ended with a strong call for dialogue, inclusivity, and capacity building among all stakeholders, from individuals to government. It was emphasized that the government has a significant role in sanitation, advocating for compliance with regulations and creating a supportive environment for the private sector to succeed. A key takeaway was the need to change public perception of sanitation, viewing it as a fundamental right and a shared responsibility rather than a private or shameful issue. Engaging youth by illustrating the direct and indirect benefits of involvement in the sanitation sector was also highlighted as essential for its future.



## Chapter 15: Practical Strategies for Enhanced Sanitation Indicators

### Roundtable Discussions:

#### Session Moderator:

- *Francis Maluki, Senior Monitoring and Enforcement Officer: WASREB represented,*
- *Dr. Charles Oyaya: International Development Institute Africa (IDIA)*

The session brought together a diverse group of experts for a roundtable discussion on improving sanitation performance through practical strategies for better indicators and delegated management. The main goals were to identify key data variables for sanitation indicators, suggest practical solutions for standardized reporting across water service providers (WSPs), and assess how effective delegated management frameworks are.

## 15.1 Key Discussions and Insights

The discussion highlighted the ongoing efforts by the Water Services Regulatory Board (WASREB) to develop a national key performance indicator (KPI) framework for sanitation, mainly focusing on non-sewered sanitation. This initiative aims to address the gaps in current reporting, which often only covers sanitation coverage without providing deeper insights into the nature of that coverage.

A central theme was the importance of a comprehensive evaluation of existing monitoring, tracking, and reporting systems in sanitation. The framework aims to be attentive to the interests of various stakeholders, from global monitoring initiatives like the Joint Monitoring Programme (JMP) focusing on health impacts, to UN-Habitat and UNEP's concern with wastewater management related to Sustainable Development Goal 6 (SDG 6).

Participants highlighted that the primary goal of the KPI framework is to target WSPs, since they fall under WASREB's direct mandate. The framework will include indicators covering the entire sanitation value chain, including governance indicators to evaluate financial sustainability and accountability. It also addresses the needs of vulnerable and marginalized populations, such as those living in informal settlements.

## 15.2 Fostering Inclusive and Sustainable Sanitation through Collaborative Governance and Capacity Building

### 15.2.1 Several challenges were identified, including:

- **Resistance to new indicators:** The initial response to new regulations is often opposition, especially from WSPs that are not adequately prepared.
- **Discretionary accountability:** The current legal framework does not

explicitly require WSPs to be responsible for non-sewered sanitation, making enforcement challenging.

- **Capacity building:** There is a vital need for training and raising awareness among WSPs to ensure they understand and can implement the new indicators.
- **Technical and social planning gaps:** Basic technical data (for example, population density, soil type) and social factors (such as available skills, cultural habits) are often ignored in planning, resulting in unsuitable sanitation systems.
- **Lack of coordinated planning:** Infrastructure development planning is poorly coordinated across the sector, with gaps between national and county-level plans and limited collaboration with infrastructure developers and financiers.
- **Unregulated areas:** Many regions are outside the current regulatory coverage [they lack WSPs and services], creating a significant obstacle to universal sanitation access.

### 15.2.2 Proposed solutions and ongoing efforts include:

- **Piloting the KPI framework:** WASREB is testing the framework with 10 WSPs to learn from their experiences and challenges before a broader roll-out.
- **Advocacy for legislative amendments:** It is necessary to amend primary legislation to establish a stronger legal framework for enforcing sanitation accountability.
- **Comprehensive baseline analysis:** Pilot utilities will conduct baseline assessments to refine the framework and indicators, ensuring they are suitable and applicable across different contexts (e.g., CBDs, informal settlements, rural areas).
- **County engagement:** WASREB is working with counties at different levels to promote planning for water and sanitation and to ensure compliance with regulatory standards.
- **Collaboration with local authorities:** WSPs should actively engage with city and municipal boards to ensure their priorities are incorporated into urban master plans.

### 15.3 Conclusion and Future Outlook

The final takeaway was that while the new sanitation **KPI framework** marks a significant advancement for improving Kenya's sanitation performance, its success is fundamentally dependent on addressing current weaknesses in the **legal frameworks, capacity building, and coordinated planning**. Participants stressed the necessity of a **collaborative approach** among WASREB, Water Service Providers (WSPs), county governments, and other stakeholders to secure a sustainable sanitation future. The immediate **next steps** involve continued piloting, extensive dissemination of the framework, and robust capacity-building programs.



## Chapter 16: Elevating Standards for Business Growth in On-site Sanitation

### Session Moderator:

Joan Kones, National Research and Projects Lead, KEWASNET

### Panelists:

Benazir Omoto, Umande Trust

Collins Owino: Lead business development and research officer, *Quercus Group*

Shem Wambua Kivyatu: Director KEWASCO

### 16.1 Introduction

The session addressed the critical role of voluntary sector-led regulation in driving business growth within the on-site sanitation sector. The discussion focused on how self-regulation, rather than external enforcement, can promote innovation, enhance service delivery, and build a more robust and sustainable industry. Participants examined the concept of self-regulation, its potential benefits, existing challenges, and strategies for successful implementation.

## 16.2 The Essence of Voluntary Sector-Led Regulation

Voluntary sector-led regulation, or self-regulation, is consistently described as an approach where industry participants themselves set and follow a specific set of standards, policies, and procedures to manage their operations. This differs from external, top-down regulation and highlights ownership, responsibility, and adaptability. It enables those with firsthand experience in the sector to create the most effective and relevant practices, encouraging an environment supportive of business growth. The main idea is that those who “wear the shoe know where it pinches the most,” making them best equipped to establish their own operational rules.

## 16.3 Business Growth through Self-Regulation

### 16.3.1 Self-regulation is seen as a powerful enabler for business growth in several ways:

- **Formalization and Compliance:** Following self-imposed standards encourages businesses to formalize their operations, obtain necessary licenses, and adhere to existing regulations (e.g., health certificates, environmental clearances). This formalization makes them more appealing to investors and partners.
- **Competitive Advantage:** Businesses that meet or surpass voluntary standards gain a competitive edge. Certifications and accreditations serve as strong marketing tools, indicating reliability and quality to customers and potential partners.

- **Market Access and Incentives:** Compliance opens doors to bigger markets, tenders, and funding opportunities. Banks and suppliers are more willing to work with de-risked and well-regulated entities.
- **Innovation and Professionalization:** A self-regulating environment promotes innovation as businesses aim to meet and exceed established benchmarks. It also fosters professional development, attracting new talent and enhancing service quality across the sector.

**16.3.2: Addressing Market Gaps:** Since only a small percentage of the total population currently uses mainstream sanitation, self-regulation presents a significant opportunity to professionalize and expand services to the large underserved market, especially as urbanization increases.

## 16.4 Existing Gaps and Strategies for Implementation

Despite the clear benefits, several gaps were identified in the current landscape that could hinder the effective implementation of self-regulation:

### 16.4.1 Gaps that can hinder self-regulation

- **Lack of Accountability Mechanisms:** Without clear systems to hold actors accountable, self-regulation becomes ineffective. Establishing peer review mechanisms and consequence frameworks is essential.
- **Limited Awareness and Information Dissemination:** Many policies and laws exist, but details about best practices and regulations often do not reach all stakeholders, especially at the grassroots level.
- **Dependence on Auxiliary Systems:** Self-regulation cannot stand alone. It requires supporting infrastructure and systems, such as proper waste disposal points, to function effectively.
- **Lack of Monitoring and Reporting:** There is a need for strong systems to track progress, report successes, and share good practices to generate a ripple effect.

### 16.4.2 Strategies to bridge these gaps are indicated

- **Inclusive Approach and Clear Messaging:** Communication should be carefully designed to emphasize the value of self-regulation, presenting it as an enabler rather than a burden. Inclusivity among all levels of actors is essential.
- **Strengthening Existing Frameworks:** Instead of creating entirely new models, the focus should be on enhancing and improving current structures and platforms for collaboration.
- **Data Management:** A unified approach to data collection and management is essential to ensure that different entities' information communicates effectively, creating a common foundation for progress.
- **Professionalization and Certification:** Establishing best practices and certification processes will elevate the sector, attracting more talent and investment.

### 16.5 Conclusion: A Collective Endeavor

Self-regulation requires a collective mindset where all stakeholders recognize their shared responsibility and destiny. Like sailors on a single ship, major players and smaller enterprises must work together toward common goals, such as increasing sewage coverage. By acting as a unified front, the sector can communicate its needs to regulators instead of being dictated to, ensuring that the constitutional right to “reasonable sanitation” is fulfilled by those best equipped to deliver it. Examples from sectors, such as informal community savings groups and public transport sectors that have successfully enforced their own rules, serve as powerful precedents for the sanitation industry. The potential for growth, job creation, and improved public health through a self-regulated and professionalized sanitation sector is immense.



## Chapter 17: Empowering On-Site Sanitation through Self-Regulation

### Session Moderator:

George K'ouma: Technical Director · Wotatech Services

### Panelists

Evans Otibine. Team Lead - Product Development & Innovation, Akiba Mashinani.

Eng. Lucy Njambi, Sanitation Engineer and Consultant:

## 17.1 The Transformative Potential of Self-Regulation in On-Site Sanitation

The discussions examined the advantages and implementation of self-regulation in on-site sanitation practices. The discussion focused on uncovering transformative potentials across different environmental settings, an interactive dialogue, leveraging the collective experience of participants.

## 17.2: Understanding and Implementing Self-Regulation in Sanitation

### 17.2.1 Defining Sanitation and On-Site Systems

**Sanitation** is fundamentally understood as encompassing household hygiene and broader environmental effects. We place a special focus here on **on-site sanitation**, which refers to systems that lack centralized infrastructure; instead, waste is handled and processed at the point of collection. The effective management of these systems requires emphasis on daily **monitoring and record-keeping**.

### 17.2.2 The Concept of Self-Regulation

Self-regulation in sanitation refers to a system where practices are governed by documented and agreed-upon regulations that are developed at the grass-roots level by local stakeholders. These established rules are then officially communicated to and accepted by users and higher authorities. This process fosters a collaborative approach, allowing communities or organizations to manage their own sanitation practices through internal enforcement mechanisms. This formal structure differentiates it from informal, undocumented, self-imposed rules.

### 17.2.3: Benefits and Challenges of Self-Regulation

Effective self-regulation could lead to increased efficiency and cost savings. However, challenges such as the inconsistent multi-agency rules and regulations were recognized, highlighting the need for a unified framework that complements existing guidelines.

## 17.3 Key Discussion Points and Recommendations: The “Why” of Sanitation

The critical importance of sanitation is demonstrated by its profound impact on **health** (reducing waterborne diseases and malnutrition), **education** (improving school attendance), and overall **well-being**. The discussion also explored sanitation’s role within a **circular economy**, emphasizing the need for wastewater treatment and reuse to protect the environment. Participants highlighted the serious **negative environmental effects** of poor sanitation, such as the eutrophication of lakes and the accelerated spread of diseases during floods.

### 17.3.1: Legislative and Policy Framework

There was an **emphasis on aligning** sanitation efforts with key international and national objectives, including **SDG 6** (which aims to ensure the availability and sustainable management of water and sanitation for all by 2030) and local visions for universal sanitation by the same year. Specific **operational goals** for these efforts were outlined, such as promoting healthy living environments, protecting natural resources, ensuring safety and dignity, and generating employment opportunities.

### 17.3.3 Feasibility and Management Considerations

Several criteria for evaluating the feasibility of technical sanitation solutions were outlined, including soil type, groundwater depth, population density, available surface area for systems, and water consumption levels. The importance of conducting a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) of the current sanitation situation was also emphasized to help guide incremental improvements.

### 17.3.4 Self-Regulation in Practice: A Chain-Based Approach

A proposed self-regulation framework involved examining the entire sanitation chain—from planning and waste generation to storage, emptying, transport, disposal, and treatment. For each phase, the framework recommended identifying activities, assigning responsibilities, highlighting opportunities for self-regulation, and setting up monitoring systems.

### 17.4: Key activities within this chain included:

- **Planning:** setting objectives, master planning, strategic planning, integrated planning, zoning, identifying sanitation chains, reviewing laws and guidelines, enforcement, awareness, capacity building, licensing, funding, tariff setting, and sustainability.
- **Waste Generation:** Construction standards for facilities, accepted procedures for utility use, waste reduction (e.g., controlling water usage, source separation), and hygiene practices.
- **Storage:** Proper containment units, access for emptying, and periodic maintenance.
- **Emptying and Transport:** Documented procedures, proper equipment, protective gear for workers, and required insurances.
- **Disposal:** Properly built and ventilated waste collection points with sufficient infrastructure.
- **Treatment:** Procedures for wastewater and fecal sludge treatment plants, sludge drying beds, and composting units, followed by the safe disposal or reuse of treated by-products.

### 17.5 Cross-Cutting Issues

The discussion also covered:

- **Monitoring and Evaluation:** The importance of reliable data collection and management.
- **Climate Change Mitigation:** Tackling the effects of floods, droughts, windstorms, and rising water levels on sanitation infrastructure.
- **Incremental Upgrading:** A phased approach to improve existing sanitation infrastructure.

tion methods.

- **Cultural Differences:** Emphasizing the importance of cultural factors in adopting and succeeding with sanitation systems, highlighting the necessity for culturally sensitive planning.
- **Infrastructure Strain:** Concerns were raised about existing sewer systems being overwhelmed by new, high-density developments, highlighting the need for effective on-site management solutions.

## 17.6 Conclusion

The session highlighted that although **water companies** often hold the **mandate for non-sewered sanitation**, their progress is severely hindered by a **lack of budget support** and an **incomplete legal framework**. This challenge is compounded by the current **disjointed nature** of sector players and enforcement responsibilities. The consensus was that **creating harmony is essential**, and **self-regulation structures** can provide much-needed order while comprehensive legal frameworks are being developed. The activities identified within the sanitation chain offer a **roadmap** for effectively implementing self-regulation, spanning from household practices to broader community and infrastructure considerations. Ultimately, addressing sanitation requires a **multi-sectoral, integrated approach** that strategically accounts for social, political, and economic factors, alongside **immediate, practical steps** that individuals and communities can take.



## Chapter 18: Enhancing On-Site Sanitation through Delegated Management and Industry-Led Voluntary Standards

### Session Moderator:

Margaret Maina, Sanitation Expert, CEO of WIWAS

### Panelists

- a) Dominic Kiogora: Lecturer at Meru University, Sanitation Expert
- b) Edward Mwangi Nduati: Technical Manager at Nakuru Rural Water
- c) Eng. Mulama, Head of Public-Private Partnership: Ministry of Water, Sanitation, and Irrigation.

### 18.1 Introduction

The session centered on the challenges and opportunities for improving on-site sanitation services in Kenya. Since a vast majority of the population depends on these solutions, the need for enhanced and regulated practices is critical. The session specifically explored how adopting delegated management and industry-led voluntary standards could boost service quality and improve public health outcomes.

## 18.2 Key Discussion Points

Experts emphasized the professional duty to combat environmental pollution, particularly in rivers affected by wastewater discharge. Despite existing regulations, Kenya's sewerage coverage is only about 16%, meaning over 80% of the population relies on on-site solutions like pit latrines and septic tanks. This dependence often causes environmental and health issues, such as groundwater pollution from overflowing systems, especially during rainy seasons. The discussion highlighted the failures of current regulations and the need for better oversight by water companies, which are currently tasked with regulating sanitation but frequently fall short.

A public health professional stressed that improving **sanitation services** is critically important for disease prevention, requiring all providers—from manual emptiers to septic tank builders—to adhere to the highest standards. Many service providers, particularly **manual pit emptiers**, operate informally due to a lack of recognition; however, they have proactively formed organized groups and voluntarily shifted from environmentally harmful practices, like dumping waste in rivers, to safer, more responsible methods. While this vital transition was initially supported by external aid that helped legitimize their work and deepen their understanding of its impact on **community health**, the key takeaway is that **local authorities must now take the lead** in supporting these essential workers. Sustainable and effective sanitation improvements ultimately depend on the county government's commitment to formally recognizing, regulating, and empowering this workforce, rather than over-relying on external assistance.

A representative of manual emptiers highlighted their group's self-regulation efforts. They have established strict rules, including penalties for unauthorized dumping, banning river pollution, and insisting on personal hygiene. While their work mainly occurs at night to meet job demands,

they face major challenges in separating different waste types (like diapers and sanitary pads) at the source. They also pointed out the lack of proper disposal infrastructure and called for dedicated area for emptying (e.g. a transfer station) in informal settlements to improve waste management and reduce informal dumping.

The manual emptiers also underscored the lack of support from official entities like county governments and water and sewer companies. Despite their vital role, they feel overlooked, with employment often given to those without the necessary skills. They emphasized the need for formal recognition, licensing, and contracts, highlighting their practical experience and willingness to collaborate with authorities.

## 18.3 Challenges and Opportunities in Coordination and Accountability

The discussants explored the challenges of accountability and coordination within the fragmented sanitation sector. One participant pointed out that when some individuals or entities are held accountable while others are not, it hampers overall progress. A representative of manual emptiers highlighted the need for direct engagement with landlords, who sometimes worsen sanitation issues by improperly releasing sewage, especially during heavy rains. The high cost of health vaccinations for manual emptiers was also a major concern, underscoring a critical gap in government support for these frontline workers. Additionally, licensing procedures from regulatory agencies were described as overly complicated, technical, and punitive, creating hurdles for informal service providers to operate legally.

The discussants suggested that effective coordination requires a framework from local authorities, such as county governments, to map all existing sanitation service providers both formal and "informal". This mapping would identi-

fy who operates where and what services they offer, providing a foundational understanding for developing appropriate standards and regulations. Once mapped, stakeholders could form task forces to collaborate on guidelines for operation. The need for evidence-based decision-making was also emphasized, advocating for increased research, monitoring, and evaluation to identify gaps and inform future actions.

## 18.4 The Role of Academia and Curriculum Development

The session ended with a discussion on the role of academic institutions, such as universities and TVETs, in shaping the future of sanitation. It was emphasized that, historically, sanitation and wastewater management courses have not consistently been offered as standalone programs. There is a significant need to develop curricula that align educational programs with industry requirements.

## 18.5 Suggestions included:

- Involving key stakeholders, including industry players and alumni, in curriculum review and development to ensure relevance and meet industry demands.
- Encouraging practical, hands-on training over purely theoretical approaches.
- Investigating why students tend to avoid sanitation and waste management courses and updating curricula to make these programs more appealing and competitive.
- Tracking alumni to collect feedback on program effectiveness and pinpoint areas for improvement.

The main view was that stakeholder engagement is essential for building a strong and efficient sanitation sector in Kenya, from policy-making and regulation to service delivery and professional growth.



## Chapter 19: Advancing On-site Sanitation Ecosystems

### Panel Moderator:

Patrick Alubbe: Executive Director at Kenya Water for Health Organization (KWAHO).

### Panelist

- Dr. Charles Oyaya: Sanitation Legal Expert at the International Development Institute Africa (IDIA)
- Isaac Mburu: Manual Emptier, Team Mashonde, Mathare Slums
- Julius Mbuvi: Chairman, Manual Emptiers, Mukuru Kwa Njenga Slums

## 19.1 Strategic Coordination and Regulatory Frameworks

The session emphasized the critical need for a multi-sectoral stakeholder approach to develop a comprehensive self-regulation framework for on-site sanitation. Discussions highlighted that such a framework requires coordination from local to national levels, recognizing the current capacity gaps at county government tiers. A key focus was on ensuring the on-site sanitation environment is environmentally friendly, protecting water catchment areas, rivers, lakes, and spring waters.

Participants stressed the need for all generated **policies, reports, and documents to be valuable and made publicly accessible**. Recommendations included translating materials into local languages and leveraging various media channels for broad dissemination. They noted that policies in other nations succeeded due to strong government and private sector collaboration, underscoring the power of a **people-driven approach**. Crucially, they stated that simple awareness campaigns are not enough; **sustained implementation is essential**. The group agreed that local problems demand local solutions, thus promoting **domestic benchmarking** over the adoption of external standards.

## 19.2 The Evolving Role of Local Service Providers

The landscape of manual waste emptying is changing. Once viewed as a hidden or unwanted job, it is now increasingly seen as a legitimate form of work. This change has been driven by efforts with community leaders and training programs that have emphasized the importance of the service providers' role in community health and safety.

The discussion revealed a growing understanding among service providers about the health and environmental impacts of improper waste disposal, especially its connection to diseases like cholera in informal settlements. This awareness has resulted in the creation of organized groups dedicated to safe waste management practices, including stopping river dumping. Although service providers have invested in personal protective equipment, the high cost of vaccinations and the lack of government support for medical expenses were identified as major challenges.

Discussions also highlighted the challenges these groups face in obtaining necessary licenses from environmental authorities due to complex and costly requirements. There was strong support for less punitive regulatory measures that are more accessible to local entrepreneurs. The lack of adequate sewer infrastructure, especially in rapidly developing areas, continues to require manual emptying and underscores the urgent need for government-supported septic tank solutions in informal settlements.

### 19.3 Challenges in Accountability and Collaborative Mechanisms

Accountability has become a major challenge, especially when compliance with standards varies across the community. The importance of engaging directly with landlords was emphasized, as their actions (e.g., opening sewage systems during rain) can weaken sanitation efforts.

To prevent fragmentation and ensure shared accountability, a clear call was made for local authorities, particularly county governments, to establish a framework for mapping and formalizing all sanitation service providers. This mapping would help authorities understand who operates where, facilitating the creation of task forces with representatives from various stakeholders. These task forces could then develop operational guidelines and standards. The importance of evidence-based decision-making through research, monitoring, evaluation, and learning frameworks was also highlighted.

### 19.4 The Role of Academia in Sanitation Capacity Building

The role of academic and vocational institutions in shaping the future of sanitation was emphasized. There is need to develop curricula in sanitation and waste management that go beyond traditional water-focused courses. Institutions like the Kenya Water Institute and TVETs were encouraged to update their curricula to better match industry demands, with a focus on practical, hands-on training.

ni, was identified as essential for curriculum review and development. This engagement would make sure that educational programs stay relevant, fill existing gaps (such as the perceived lack of practical training in wastewater operation and maintenance), and attract more students to the sanitation field. The goal is to close the gap between theory and practice, ensuring that future graduates are well-prepared for the challenges in the sanitation sector.

Stakeholder engagement, especially with industry professionals and alum-



## Chapter 20: A Call to Action for Self-Regulation

The Sanitation Accountability Symposium ended with a powerful speech from the Principal Secretary (PS) for Environment and Climate Change, Dr. Festus Ngeno, who emphasized the vital role of self-regulation in the sanitation sector. His remarks highlighted the approach aligns with Kenya's constitutional mandates and presented a vision of a collaborative and sustainable future.

### 20.1 A Constitutional and Moral Imperative

Dr. Ngeno started by sharing his personal commitment to the topic, emphasizing that true progress begins with education at the community level. He described sanitation as more than just a public service, linking it to personal dignity and health. For businesses, he pointed out that it serves as a sign of responsible waste management and sustainable operations.

Referencing Article 42A and Article 43D, which guarantee everyone the right to a clean and healthy environment, reasonable sanitation standards, and safe water, he mentioned the recent publication of the Environmental Management and Coordination, West Management Regulation of 2024, and the Water Quality Regulations of 2024, which set clear standards for waste treatment and disposal.

## 20.2 A Partnership for Progress

The PS clarified that these new regulations are not intended to be punitive. Instead, their goal is to protect the constitutional rights of all Kenyans. He described a vision where the National Environment Management Authority (NEMA) is viewed not as a threat but as a trusted partner in achieving environmental objectives. This new strategy aims to support a well-organized and adequately funded sanitation sector in Kenya.

## 20.3 The Path Forward: Empowering Communities through Collaboration

In his closing remarks, Dr. Ngeno reaffirmed the Ministry of Environment, Climate Change and Forests' commitment to protecting citizens and future generations. He highlighted that self-regulation will be key to empowering communities and encouraging cooperation among all stakeholders, from individual households to large industries. This strategy ensures that regulations are not only enforceable but also practical and broadly accepted.

Dr. Ngeno ended with a strong call to action: to go beyond just managing waste and see it as an opportunity to build a cleaner, healthier, and more sustainable future for everyone.



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