

**Speech Presentation on Ghana's Journey in
Monitoring and Regulating Public Drinking
Water Services**

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CANEVAS DE PRESENTATION DES COMMUNICATIONS

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Introduction

Good morning, Your Excellencies, distinguished dignitaries, honored guests, ladies and gentlemen,

It is both a pleasure and a privilege to be here among such distinguished representatives joining you today at this esteemed international assembly. As we gather here, we recognize that the challenges and responsibilities of ensuring safe, reliable drinking water are shared across borders and continents. Access to clean water is a fundamental human right and a cornerstone of public health, economic stability, and sustainable development.

Today, I am honored to share Ghana's journey and insights in monitoring and regulating public drinking water services. Our experiences reflect the global need for robust frameworks, proactive risk management, and community engagement to safeguard water quality in a rapidly changing world. Ghana's approach is a testament to the resilience and collaboration required to meet these challenges, blending policy innovation with practical solutions tailored to local needs.

To set the stage, let us consider the water resources that Ghana relies on. Our water sources include both surface water such as (rivers and lakes) and groundwater aquifers. These resources are essential not only for drinking water but also for agriculture and industry. Two main institutions, the Water Resources Commission (WRC) and the Ministry of Sanitation and Water Resources, are responsible for managing these resources sustainably. The WRC plays a central role in regulating the allocation and conservation of water resources. By issuing permits and monitoring water quantity and quality, the WRC ensures that we use water efficiently while safeguarding our resources for future generations.

The Water Resources Commission (WRC), established under Act 522 in 1996, serves as Ghana's national authority for water resource management. Its mission is to promote sustainable water development for all Ghanaians, ensuring water availability for agriculture, industry, energy, and public health. By issuing permits, implementing pollution controls, and enforcing sustainable practices, the WRC balances the needs of people, industry, and ecosystems. Ownership of water resources is vested in the President on behalf of the people, and the Act mandates that no water can be used without prior authorization from the WRC. Through collaboration with key stakeholders like the Forestry Commission, Ghana Water Company Limited (GWCL), and the Environmental Protection Agency (EPA), the WRC ensures the sustainable use, protection, and equitable allocation of water resources.

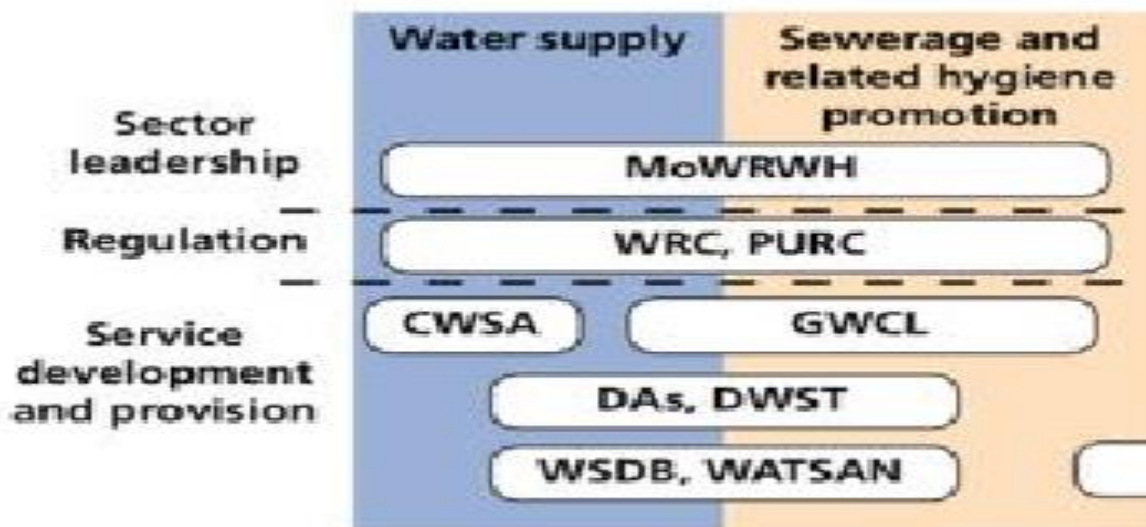
The WRC operates through eight basin offices nationwide, acting as implementation arms at the river basin level to apply integrated water management approaches. To support its mandate, robust legal instruments have been developed, including the Water Use Regulations of 2001 (issuing water rights and allocation permits), which establish permitting procedures and raw water charges, and the Groundwater Development Regulations of 2007 (issuing drilling licenses), which ensure proper licensing for drilling activities. Additionally, the Dam Safety Regulations (issuing dam safety permits), and Buffer Zone Policy promote safety and ecological preservation. These strategies and decentralization efforts strengthen local oversight and enable the WRC to adapt its policies to the specific needs of each basin, underscoring its commitment to sustainable water resource management in Ghana.

Ghana's commitment to safe drinking water led to the creation of the National Drinking Water Quality Framework, a critical component of our water safety strategy. This framework emphasizes a preventive, risk-based approach that

manages potential threats to water quality across the entire supply chain from catchment to consumer. By identifying risks early, we aim to protect public health and reduce the incidence of waterborne diseases.

The framework has six essential components:

- Commitment to quality management through health-based targets and regulatory compliance.
- Water Safety Plans for risk management from source to consumer.
- Continual improvement through regular review and evaluation.
- Application to specific sources like small community supplies and packaged water.
- Emergency response plans for incidents affecting water quality.
- Supporting programs focused on training, community engagement, and research.



Ghana's water supply structure includes urban, small-town, and rural services:

- Urban water supply is managed primarily by the Ghana Water Company Limited (GWCL).

- Rural and small-town water services are overseen by the Community Water and Sanitation Agency (CWSA).
- Private enterprises supplement these efforts, providing bottled and sachet water, particularly in areas beyond the reach of public supply.

Key Actors in Ghana's Water Supply System

Aspect	Ghana Water Limited (GWL)	Community Water and Sanitation Agency (CWSA)	Private Enterprises
Mandate	Responsible for supplying potable water to urban populations. Operates large-scale water treatment plants and maintains distribution networks.	Manages water services in rural areas and small towns. Works with local governments and communities for sustainable delivery.	Fills gaps in water supply for both urban and rural areas not reached by GWCL or CWSA
Responsibilities	Supply of treated water to urban areas	Implements community-based management models for water supply	Produces limited water supply, sachet and bottled water
	Maintenance of water treatment plants and distribution networks	Promotes household sanitation practices	Reaches underserved areas, especially peri-urban and rural regions
Key Challenges	Old infrastructure causing water losses	Ensuring community participation in water management	Regulatory challenges in ensuring compliance with standards set by GSA and FDA
	Difficulty in meeting growing urban demand	Monitoring and ensuring water quality standards are met	Difficulty in monitoring informal and small-scale producers (especially sachet water)
	Ensuring compliance with National Drinking Water Quality Management Framework		

Ensuring the quality and accessibility of drinking water requires coordinated efforts across several regulatory bodies:

- The Public Utilities Regulatory Commission (PURC) regulates tariffs and oversees urban water service delivery.
- The Ghana Standards Authority (GSA) establishes water quality standards.
- The Food and Drugs Authority (FDA) regulates sachet and bottled water production, inspecting facilities and monitoring safety.

These agencies work together to provide a cohesive regulatory framework that covers all aspects of water quality and accessibility.

Roles and Responsibilities of institutions in Drinking Water Regulation

Aspect	Public Utilities Regulatory Commission (PURC)	Ghana Standards Authority (GSA)	Food and Drugs Authority (FDA)
Role in Water Regulation/ Management	Sets tariffs for water services ensuring affordability and financial sustainability.	Develops and enforces water quality standards	Regulates bottled and sachet water to ensure compliance with health and safety standards
	Monitors the performance and service delivery of GWL and CWSA	Ensures all water providers (GWL, CWSA, private producers) follow guidelines.	Conducts regular inspections of production facilities and water testing
	Addresses consumer complaints related to water service quality	Periodically reviews standards based on scientific research and public health needs	
Collaboration	Collaborates with public utilities provides such as GWL, CWSA, ECG etc.	Collaborates with FDA and PURC to ensure safe drinking water reaches consumers	Collaborates with GSA on water quality standards and enforcement
			Works with PURC on consumer health and safety issues
Challenges	Balancing affordability and sustainability of water tariffs		Enforcing standards and penalizing non-compliant producers
	Ensuring effective monitoring of service quality, especially in remote areas		Shutting down non-compliant production facilities

Effective water management in our communities relies on the collaboration of various stakeholders. The Community Water and Sanitation Agency (CWSA) provides crucial technical training and support for system repairs, while District Assemblies supervise operations and ensure policy implementation. Non-Governmental Organizations (NGOs) partner in training, hygiene education, and project funding, introducing innovative practices. Traditional Authorities facilitate community mobilization, ensuring cultural buy-in. Regulatory bodies like PURC and the Ghana Standards Authority (GSA) ensure fair pricing and water quality standards. The Food and Drugs Authority (FDA) monitors safety compliance, and the Water Resources Commission (WRC) regulates water use. Local artisans ensure ongoing maintenance, creating a robust support network for sustainable water management.

Despite the significant progress we have made in water management, several challenges persist. One of the key limitations is the lack of sufficient financial resources for equipment, personnel, and overall operations. To overcome this, we must develop sustainable funding mechanisms, such as leveraging tariffs and securing grants, to support ongoing monitoring activities.

Technical capacity is another hurdle, with limited skills among WATSANs and LWCs in managing and monitoring water systems. Addressing this requires investing in training programs to strengthen the knowledge and technical abilities of Local Water Committees and staff. Institutional roles and coordination remain problematic due to overlapping mandates and weak collaboration among agencies. The need to clearly define roles and responsibilities to streamline efforts and avoid duplication.

Data availability is also an issue, as inconsistent or incomplete data on water quality and system performance hampers effective decision-making. Investing in tools and technologies for reliable data collection and analysis is essential. Logistical challenges, particularly accessing remote areas due to poor infrastructure, further complicate fieldwork. Improving transportation and communication networks will make field inspections more efficient.

Monitoring public drinking water services relies on key indicators to ensure reliability, efficiency, and public health. Water quality parameters like pH, turbidity, microbial content and residual chlorine are tested to meet national standards. Non-revenue water is assessed to reduce losses and enhance efficiency of water supply systems. Service coverage ensures equitable access to safe drinking water. Metering and billing efficiency improves revenue collection and fairness. Water production and demand ratios optimize resource allocation, while response times to complaints reflect service quality. Finally, infrastructure condition assessments prioritize maintenance and rehabilitation efforts, ensuring long-term reliability of water systems. Together, these indicators drive sustainable water management.

Funding for water sector agencies comes from diverse sources. The Water Resources Commission relies on government subventions, permits, and donor funding. The Public Utilities Regulatory Commission generates revenue from utility levies and grants. The Ghana Standards Authority depends on fees and national budgets, while the FDA leverages fines, licenses, and donor support.

Monitoring water quality requires attention to various parameters physical, chemical, and microbiological. National and regional laboratories conduct tests, and the FDA and GSA enforce standards through regular inspections. However, regulatory agencies face resource constraints that make it challenging to monitor private producers consistently, especially in remote areas.

The framework is built on core principles (a risk-based approach to identify and mitigate threats, source protection to prevent contamination, and continuous monitoring and reporting to support compliance). The roles of water providers, regulators, and communities are clearly defined, and Water Safety Plans guide stakeholders in best practices. Training, public education, and emergency preparedness are integral to this approach.

Effective water management and supply requires a collaborative approach. The WRC, GWCL, CWSA, and private producers coordinate their efforts to manage resources efficiently. Sustainability is also crucial, with planning focused on addressing population growth and climate change. Promoting water conservation and establishing sustainable tariff structures will help preserve resources for the future.

Community involvement plays a critical role in Ghana's water quality efforts. Local water committees and WATSANs help monitor rural water quality, manage maintenance, and address issues like leaks and contamination. Capacity-building programs empower communities to treat and safely store water and raise awareness about water handling practices to reduce health risks.

Despite progress, Ghana faces challenges in water quality management:

- Limited resources for comprehensive monitoring.
- Difficulties in regulating informal water suppliers like sachet water producers.
- Data gaps, particularly in rural and peri-urban areas.

To address these challenges, Ghana is working to:

- Increase investment in regulatory capacity and infrastructure.
- Implement advanced data collection technologies.

- Enhance coordination among agencies and foster public-private partnerships to improve reach and regulatory effectiveness.

Ghana's journey in water monitoring and regulation has taught us important lessons. We have learned the value of a sustainable water management approach that considers population growth and climate change. Investing in infrastructure upgrades particularly in urban areas, has proven essential to meet rising demand. Ghana is also increasingly focused on building climate-resilient infrastructure to ensure future water security.

Ghana has made notable progress in monitoring and regulating public drinking water services, implementing a robust regulatory framework involving key agencies such as the Public Utilities Regulatory Commission (PURC), Ghana Standards Authority (GSA), and Food and Drugs Authority (FDA). This framework, supported by Water Safety Plans, has improved service quality through proactive, risk-based monitoring and standards enforcement, especially in urban areas.

However, challenges remain, including limited resources, inconsistent data collection, and difficulties in regulating informal water suppliers like sachet producers. These issues impact the uniformity of water quality monitoring, particularly in rural and peri-urban areas. To improve sustainability, Ghana is investing in advanced data collection, inter-agency coordination, and community engagement, fostering social and environmental sustainability through local water committees and conservation efforts.

With ongoing investments and collaboration, Ghana's approach shows potential for success in delivering safe drinking water, though challenges must be addressed to ensure full system effectiveness.

In conclusion, Ghana's experience in regulating drinking water reflects a combination of progress, challenges, and opportunities. We have a strengthened regulatory framework, yet we must continue to invest in infrastructure, improve data collection, and foster collaboration across sectors. Together, we can ensure safe drinking water for all Ghanaians.

Thank you.