WATER RESOURCES COMMISSION

MONITORING AND REGULATING PUBLIC DRINKING WATER SERVICES IN GHANA

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OVERVIEW OF WATER RESOURCES MANAGEMENT IN GHANA

Water Resources

Ghana's water resources include both surface water (rivers, lakes) and groundwater (aquifers). These resources are vital for domestic, agricultural, and industrial use.

- **Key Institutions**
  - Water Resources Commission (WRC)
  - Ministry of Sanitation and Water Resources

These institutions are responsible for ensuring sustainable use and management of water resources

- **Mandate of WRC**

  WRC is responsible for regulating and managing the use of water resources, including allocation and conservation. It also ensures that water is used efficiently and sustainably

- **WRC's Role in Water Supply**

Issuance of water permits for various uses

Monitoring the quantity and quality of water resources

Coordination with drinking water suppliers (GWL, CWSA, Private Enterprises such as Safe Water, 4WARD Development, Water Health, Sachet Water Producers)

WATER RESOURCES COMMISSION

The water resources commission (WRC)

- **National body for water management:** established under the Water Resources Commission Act 522 in 1996 to regulate and manage Ghana's water resources
- **Core mission:** to promote sustainable development and management of water resources for all Ghanaians
- **Key functions**
  - ✓ Issuance of water permits for various uses (agricultural, industrial, domestic, etc.)
  - ✓ Protection of water bodies and implementation of pollution controls
  - ✓ Regulation and enforcement of sustainable water use practices

Importance of WRC in Ghana's Development

- Water as a Vital Resource for Development: Ghana's water resources underpin agriculture, industry, energy, and public health
- Sustainable Water Management: Ensures water availability for future generations, balancing the needs of people, industry, and ecosystems
- National Coordination: Serves as the central authority, collaborating with other government agencies, NGOs, and international partners

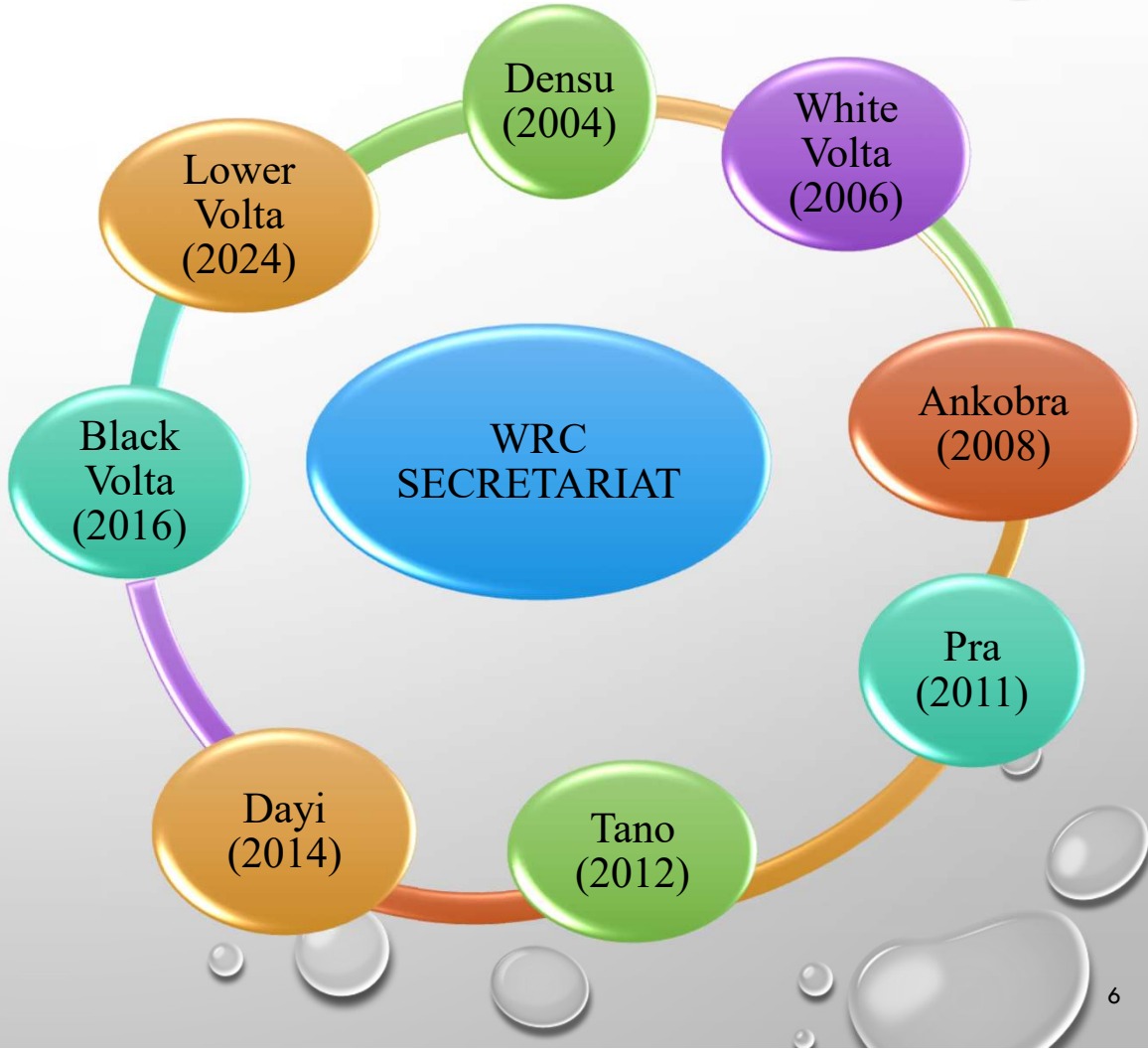
WRC ACT 1996, (ACT 522)

- WRC Act 522 of 1996 provides a comprehensive law to establish a separate water resources management institution in Ghana
- According to the Act 552, ownership of Water Resources is vested in the President of Ghana on behalf of the people, and clearly defines the WRC as the overall body responsible for water resources management in Ghana. The president appoints the Executive Secretary who is responsible for the day-to-day management and administration of the Commission under the general supervision and direction of the board
- Act prohibits the use of water resources without prior authorization and grant of water use rights from the Water Resources Commission including all public water utility agencies. It provides a forum for integration and collaboration of different interests, composed of the major stakeholders involved in the water sector.
- WRC board is made up of 15 members including the Chairman, the Executive Secretary, a Chief and two other persons, one of whom shall be a woman.

INSTITUTIONAL SET UP OF WRC

- WRC has 8 Basin offices established and running across the country

- Basin Office provides support to local district authorities and liaise with regional, and national authorities to apply the integrated approach to water resources management



STRATEGIES FOR WATER RESOURCES MANAGEMENT AND REGULATION

Water Use Regulations (L.I. 1692) 2001

- By this legislation the Commission has set out the procedures for water rights, water permits and water use registration
- Raw water charges are quantified and exemptions made for which no charge would be collected. The charges are to defray the cost of managing water resources management

Drillers License and Groundwater Development Regulations (LI 1827) 2007

- Provide license to all companies that prospect for and drill water wells
- Gather information on the groundwater resources availability and its exploitation for effective planning, management and development

Dam Safety Regulations (L.I. 2236) 2016

- inspect dams and classify dams to which these Regulations apply
- create public awareness on dam safety, maintenance and related matters

Buffer Zone Policy

- Protect, restore and maintain the ecological and livelihood-support functions of the buffer zones
- Ensures equitable and sustainable utilization and management of buffer zone conservation areas, which will contribute to long-term well being of both residents and downstream communities

OVERVIEW OF THE DRINKING WATER QUALITY FRAMEWORK IN GHANA

The National Drinking-Water Quality Framework for Ghana adopts a preventive risk management approach that focuses on risk reduction across the entire water supply system, from catchment to consumer and different supply chains (urban, rural, and private providers). The Framework outlines principles of management applicable to all water supply systems regardless of size and system complexity.

It promotes understanding of;

- Water supply system and the risks that could compromise drinking water quality
- Operational controls necessary to ensure safe drinking water and protect public health

Importance of National Drinking Water Quality Framework

- Enabling access to safe drinking water is essential for public health and well-being.
- Effective management of water resources is key to providing safe water and preventing waterborne diseases.
- The preventive risk management approach is vital for safeguarding Ghana's drinking water quality, shifting from reactive measures to proactive risk management to ensure public health protection

OVERVIEW OF THE FRAMEWORK CONT'D

The framework is structured into six key components

1. Commitment to drinking water quality management

- Setting health based targets, meeting regulatory requirement and engaging stakeholders such as WRC, PURC, EPA, FDA and other government agencies

2. Water supply system analysis and management (Water Safety Plans)

- Identifying and managing risks from source to consumer and ensuring preventive measures are working effectively

3. Review, audit, evaluation, and continual improvement

- Long-term monitoring and evaluation of water quality management to ensure effectiveness and identify improvements

4. Application to specific water sources

- Managing water quality for small community supplies, self-supplies, and packaged water

5. Management of incidents and emergencies

- Developing emergency response plans for potential water quality incidents

6. Supporting programs

- Training, community involvement, research, and documentation to ensure all components are implemented effectively

OVERVIEW OF THE REGULATORY FRAMEWORK

Key Regulatory Bodies

Public Utilities Regulatory Commission (PURC)

- Established under the Public Utilities Regulatory Commission Act 1997 (Act 538)
- Regulates the provision of utility services like water and electricity to the public for a fee

Ghana Standard Authority (GSA)

- Specifies requirements, sampling, and testing methods for drinking water from “prepared waters”
- Applies to packaged/bottled drinking water, excluding natural mineral water

Food and Drugs Authority (FDA)

- Regulates sachet water by overseeing product and premises registration
- Conducts post-approval market surveillance and monitors food- and water-borne diseases

Water Resources Commission (WRC)

- Established under the Water Resources Act, 1996 (Act 522)
- Provides the legal framework for water management and regulation in Ghana

HIERARCHICAL AND FUNCTIONAL RELATIONSHIPS BETWEEN WRC, PURC, GSA, AND FDA

- In Ghana, the Water Resources Commission (WRC), Public Utilities Regulatory Commission (PURC), Ghana Standards Authority (GSA), and Food and Drugs Authority (FDA) operate within distinct mandates, **but their functions intersect in areas related to water resource management, quality regulation, and consumer protection**
- There is no strict hierarchical relationship among these agencies, as they are autonomous regulatory bodies with specific mandates. Functional relationships are complementary. These agencies work collaboratively to ensure sustainable water use, fair pricing, and public health protection in Ghana
- WRC's primary role in the regulation of drinking water is ensuring the sustainable management of water resources and the quality of raw water at its source.

HIERARCHICAL AND FUNCTIONAL RELATIONSHIPS BETWEEN WRC, PURC, GSA, AND FDA

Agency	Relationship with WRC	Relationship with PURC	Relationship with GSA	Relationship with FDA
Water Resources Commission (WRC)	Lead agency for water resource management; collaborates to align water use with service delivery and quality standards.	Provides information on water resource availability to guide PURC's regulation of water utilities.	Informs water quality guidelines using standards set by GSA.	Supports FDA by ensuring raw water sources meet basic safety levels before treatment.
Public Utilities Regulatory Commission (PURC)	Relies on WRC for data on water resource availability and collaborates on tariff setting for sustainable water use.	Directly regulates water utilities (GWL & CWSA) to ensure affordability and efficiency.	Coordinates to ensure water supplied by utilities meets national quality standards.	Works with FDA to ensure water from public utilities meets safety requirements.
Ghana Standards Authority (GSA)	Provides technical standards for water quality, which inform WRC's regulatory guidelines.	Ensures public utility-supplied water adheres to national quality standards.	Collaborates with FDA to enforce standards for bottled and packaged water.	Partners with FDA to maintain health and safety standards for water products.
Food and Drugs Authority (FDA)	Works with WRC to ensure raw water sources meet safety levels before treatment.	Supports PURC by ensuring private and public water providers meet safety standards.	Collaborates with GSA to enforce quality and safety standards for packaged and bottled water.	Ensures compliance with standards for health and safety in all water-related products.

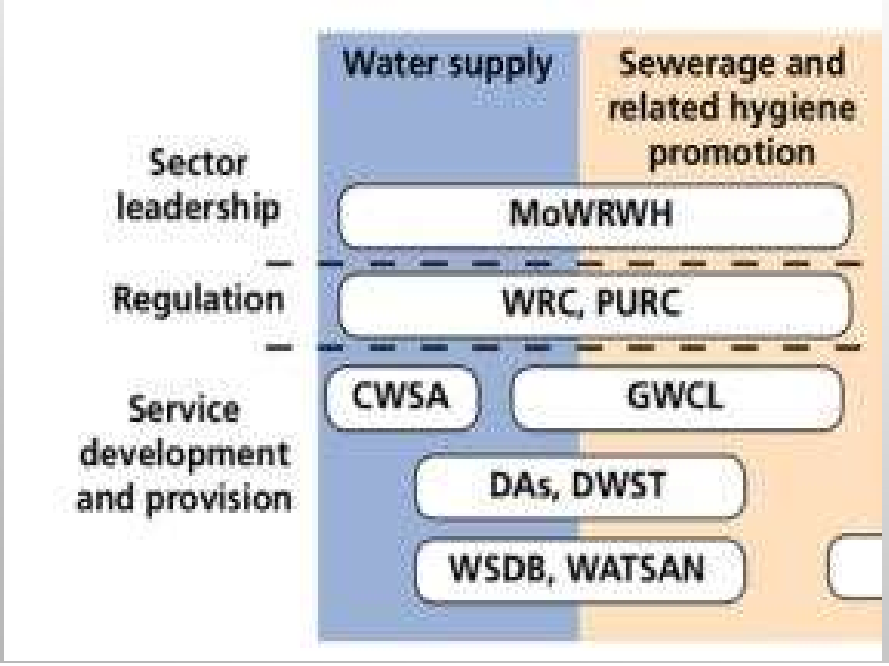
WRC'S ROLE IN THE REGULATION OF DRINKING WATER

Key Area	Description
Management and Source Water Protection	Regulates water abstraction for sustainable use
	Protects water resources from over-exploitation and pollution
Ensuring Raw Water Quality	Collaborates with GSA and FDA to set and monitor water quality standards at the source
	Implements measures to prevent pollution of raw water sources
Coordination with Stakeholders	Works with GWL, CWSA, and PURC to ensure raw water availability for treatment and distribution
Monitoring and Data Collection	Conducts assessments of water availability and quality to inform drinking water supply planning
Policy and Regulation	Enforces regulations like buffer zone policies and pollution control measures
	Implements IWRM to prioritize equitable water allocation, including for drinking water needs

WATER SUPPLY STRUCTURE IN GHANA

Urban, Small-towns and Rural water supply services

- Urban supply: managed primarily by Ghana Water Limited (GWL), providing piped water to urban areas
- Rural and Small towns water supply: managed by Community Water and Sanitation Agency (CWSA)
- Private enterprises: complement government efforts, producing sachet and bottled water, especially in peri-urban and rural areas



- Water Resources Commission (WRC) and the Public Utilities Regulatory Commission (PURC) have regulation authority for rural and small-towns water and urban water respectively
- CWSA is in charge of small towns and rural water service development and provision
- Ghana Water Limited (GWL) managed as a professional water service provides water to urban areas
- National Water Policy (NWP) define communities with population between 2,000 to 50,000 as small towns

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 GWL 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		

MECHANISMS FOR MONITORING PUBLIC DRINKING WATER SERVICES

Regulatory Oversight

PURC monitors service standards like quality, reliability, and affordability

WRC regulates raw water abstraction for sustainability

Performance Monitoring Systems

Public Water Utilities (GWL & CWSA) tracks operational efficiency through performance audits and real-time systems. GWL has some installation of Supervisory Control and Data Acquisition (SCADA) systems to monitor water production and distribution in real-time

Water Quality Testing

Regular testing at treatment plants, reservoirs, and distribution points to meet national standards

Collaboration with GSA and FDA for enforcement of water quality standards

Customer Feedback Mechanisms

Hotlines and customer service platforms to address complaints and gather feedback

Monitoring Infrastructure

Installation of systems to monitor water production, distribution, and usage in real-time

KEY INDICATORS USED FOR MONITORING PUBLIC DRINKING WATER SERVICES

Key Indicators	Description	Reasons
Water Quality Parameters	Regular testing for pH, turbidity, microbial content (E. coli), and residual chlorine levels	To ensure compliance with national and international drinking water quality standards and safeguard public health
Non-Revenue Water (NRW)	Measures water losses due to leaks, theft, or metering inaccuracies	To identify and reduce water losses, enhance revenue generation, and improve overall system efficiency Performance of water supply system facilities are always tied to NRW
Service Coverage	Tracks the percentage of the population with access to piped water services	To assess progress toward universal access to safe drinking water and identify underserved areas
Metering and Billing Efficiency	Monitors the accuracy and coverage of water metering and revenue collection	To improve revenue collection, minimize financial losses, and ensure fair billing for consumers
Water Production and Demand Ratios	Assesses the balance between water produced and consumer demand	To ensure adequate supply meets demand, avoid shortages, and optimize resource allocation
Response Time to Complaints	Tracks how quickly customer issues are resolved	To enhance customer satisfaction and address service delivery gaps effectively
Infrastructure Condition Assessments	Evaluates the state of pipelines, treatment plants, and storage facilities	To prioritize maintenance and rehabilitation efforts, ensuring long-term reliability of the water supply system

ROLES AND RESPONSIBILITIES OF INSTITUTIONS IN WATER REGULATION AND MANAGEMENT

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

FUNDING SOURCES FOR THE AGENCIES

Agency	Funding Sources
Water Resources Commission (WRC)	**Government Subventions**: Allocations from the national budget
	Permit and License Fees: Revenue from water use permits, compliance penalties and drilling and groundwater development fees
	Donor Funding: Contributions from international organizations and development partners for specific projects
	Consultancy Services: Revenue from advisory and technical services provided to stakeholders
Public Utilities Regulatory Commission (PURC)	**Government Subventions**: Allocations from the national budget
	Utility Regulatory Levies: Fees charged to utility providers (GWL, CWSA, ECG) as a percentage of their revenue
	Grants: Donor funds and development partner contributions for capacity-building initiatives.
Ghana Standards Authority (GSA)	**Government Subventions**: National budget allocations for operational support.
	Fees for Services: Revenue from product testing, certification, and metrology services.
	Donor Support: Funding from international partners for standards development and capacity building.
Food and Drugs Authority (FDA)	**Government Subventions**: Allocations from the national budget
	License and Registration Fees: Revenue from licensing and registering products, facilities, and services
	Fines and Penalties: Income from enforcement actions for non-compliance
	Donor and Development Partner Support: Funding for public health and regulatory initiatives

COMMUNITY ENGAGEMENT AND PARTICIPATION IN WATER QUALITY MANAGEMENT

Community Roles

- **Local Water Committees**

  These committees are formed at the community level to assist in monitoring rural water quality and ensuring proper maintenance of local water systems

  They play a key role in identifying water issues such as leaks, contamination, or supply disruptions, and reporting them to local authorities or CWSA

- **Basic Maintenance and Oversight**

  Communities take responsibility for the basic upkeep of water facilities, such as boreholes and standpipes, ensuring they remain functional and hygienic

  They also manage local water funds to handle minor repairs and maintenance, ensuring sustainability

- **Training Programs**

  Capacity building initiatives are designed to train communities on water quality standards, equipping them with knowledge on the importance of safe drinking water

  Programs teach simple, affordable techniques for household water treatment such as boiling, chlorination and storage

- **Awareness and Behavior Change**

  Programs also focus on raising awareness about the health impacts of poor water quality and encouraging safe water handling practices at the household level

WATSANS AND LOCAL WATER COMMITTEES (LWCS) IN PUBLIC WATER SERVICE

- WATSANs and LWCs are community-based structures that manage small-town water systems and water resources. They maintain strong functional links with key stakeholders like WRC, CWSA, District Assemblies, and NGOs for capacity building and resource support.
- WATSANs typically oversee single water points, such as boreholes, hand pumps and small water supply system. WATSANs in communities manage water and sanitation systems through administrative, technical, and financial practices. These responsibilities ensure sustainable water services while fostering accountability and effective resource management. WATSANs play a critical role in maintaining infrastructure, engaging skilled support, and promoting financial transparency within the community.
- LWCs are responsible for the management of watershed activities at the local level. They serves as the local governance structure directly responsible for implementing watershed activities within sub-basins. They actively engage community members in decision-making and the management of water resources, ensuring inclusivity and local ownership. LWCs collaborate with the Water Resources Commission (WRC), district assemblies, and technical teams to enhance capacity in Integrated Water Resources Management (IWRM) and climate change adaptation. By fostering local accountability and sustainable practices, LWCs ensure efficient water resource management and contribute to the long-term sustainability of water supply systems.

FUNCTIONAL LINKS OF WATSANS AND LOCAL WATER COMMITTEES (LWCS) IN PUBLIC WATER SERVICE

Stakeholder	Functional Link	Role in Supporting WATSANs/LWCs
Community Water and Sanitation Agency (CWSA)	Provides technical training and guidance	Sets operational standards and builds capacity for WATSANs
		Offers technical and financial assistance for complex repairs and system expansions
District Assemblies	Supervises the activities of WATSANs and LWCs within their jurisdiction	Facilitates access to resources, policy implementation, and conflict resolution
Non-Governmental Organizations (NGOs)	Partner with WATSANs/LWCs to provide technical training, hygiene education, and funding for projects	Introduce innovative practices, provide materials, and support community engagement initiatives
Traditional Authorities	Support community mobilization and conflict resolution	Ensure cultural and community buy-in for water management practices.
Public Utilities Regulatory Commission (PURC)	Regulates tariffs for small-town piped water systems managed by WATSANs	Provides oversight to ensure fair and sustainable water pricing.
Ghana Standards Authority (GSA)	Sets water quality standards to be adhered to by WATSANs	Provides testing protocols and conducts quality audits.
Food and Drugs Authority (FDA)	Ensures compliance with safety standards for treated water	Monitors compliance for bottled water in rural settings.
Water Resources Commission (WRC)	Regulates water abstraction permits and ensures sustainable water source management	Collaborates with LWCs to enforce water use regulations protect water sources
Private Sector (Local Artisans and Technicians)	Provide maintenance and repair services	Ensure functionality of systems through repair and spare part supply

WATER QUALITY MONITORING, COMPLIANCE AND ENFORCEMENT MECHANISMS IN GHANA

Key Monitoring Parameters

- Physical: pH, turbidity, color, TSS, TDS, EC, DO
- Chemical: Nitrates, fluoride, Iron, Manganese, heavy metals
- Microbiological: E. coli, total coliforms

Monitoring Infrastructure

- National and regional laboratories accredited for water quality testing e.g CSIR-WRI lab, SGS, GWL
- Field tests conducted by GWL, CWSA, and private producers under the guidance of GSA and FDA

Enforcement by Regulators

- GSA and FDA regularly inspect water facilities and test products
- Non-compliance can result in warnings, fines, and closure of facilities

Challenges

- Resource constraints in monitoring all private water producers
- Low capacity in agencies to enforce compliance

KEY PRINCIPLES AND IMPLEMENTATION OF THE NATIONAL DRINKING WATER QUALITY FRAMEWORK

Risk-Based Approach

- Identify and mitigate risks throughout the water supply chain, from catchment to consumer

Prevention Through Source Protection

- Focus on preventing contamination at the source and applying effective treatment methods to ensure water safety

Monitoring and Reporting

- Continuous monitoring of water quality, regular reporting, and audits to support compliance and improvement

Stakeholder Collaboration

- Clear roles for water providers, regulators (PURC, FDA, GSA, WRC), and communities to ensure consistent management

Water Safety Plans (WSPs)

- Guidance for all stakeholders on adopting best practices and ensuring consistent water quality at all stages

Capacity Building

- Training for water providers and public education on water safety and emergency response

Emergency Preparedness

- Response plans to handle water quality incidents and communicate with affected communities

INTEGRATION, COORDINATION AND SUSTAINABILITY IN WATER RESOURCES MANAGEMENT AND SUPPLY

Integrated Approach: Collaboration among WRC, GWL, CWSA, and private producers for effective management

Regulatory Coordination: Works with PURC, FDA, GSA for quality standards and tariff structures

Joint Monitoring: Collaboration on water quality monitoring and data sharing

Sustainability

- Long-term Planning: Ensure water supply considers the sustainability of resources
- Population Growth: Address increasing demand through proactive infrastructure expansion
- Climate Change Resilience: Implement measures to adapt to changes in rainfall and weather patterns
- Conservation Efforts: Encourage water conservation practices at community and household levels
- Sustainable Funding: Establish tariff structures that cover costs while remaining affordable for users

LIMITATIONS AND CONSIDERATIONS FOR MONITORING AND REGULATING PUBLIC DRINKING WATER SERVICES

Aspect	Main Limitations	Points to Bear in Mind
Financial Resources	Insufficient funding for equipment, personnel, and operations	Develop sustainable funding mechanisms, such as tariffs or grants, to support monitoring activities
Technical Capacity	Low capacity and commitment of WATSANs and LWCs to manage and monitor water systems	Provide training for Local Water Committees, WATSANs, and technical staff to strengthen knowledge base
Institutional Roles	Overlapping mandates and weak coordination among agencies	Clearly define roles and responsibilities to enhance collaboration and avoid duplication of efforts
Data Availability	Inconsistent or incomplete data on water quality and system performance	Invest in tools and technologies for consistent data collection, analysis, and reporting
Logistical Challenges	Difficulty accessing remote areas due to poor infrastructure such as (roads, communication networks)	Improve transportation and communication infrastructure for effective fieldwork and inspections
Community Compliance	Low awareness and adherence to water use and safety regulations	Raise community awareness about standards and encourage compliance through engagement and sensitization

CHALLENGES AND POSSIBLE SOLUTIONS IN WATER QUALITY MANAGEMENT

Challenges

Inadequate Resources for Comprehensive Monitoring

- The limited financial and human resources available to regulatory bodies such as the WRC, FDA, PURC and GSA hinder the ability to conduct thorough water quality monitoring across the entire country, especially in remote and rural areas
- Testing equipment, trained personnel, and infrastructure for water quality monitoring are insufficient, making it difficult to maintain regular oversight

Difficulty Regulating Informal and Small-Scale Water Producers

- The widespread presence of informal water suppliers, particularly sachet water producers, creates challenges in ensuring compliance with national water quality standards
- Many small-scale producers operate outside formal regulatory frameworks, making it difficult for FDA and GSA to enforce regulations and ensure water safety

Gaps in Data and Reporting from Rural and Peri-Urban Areas

- Inconsistent data collection and reporting from rural and peri-urban areas pose significant challenges for tracking water quality trends

CHALLENGES AND POSSIBLE SOLUTIONS IN WATER QUALITY MANAGEMENT CONT'D

Possible Solutions

Increased Investment in Regulatory Capacity

- Investing in expanding the capacity of regulatory agencies, including hiring more personnel, improving laboratory facilities, and providing better monitoring tools, will enhance their ability to oversee water quality across the country.
- Strengthening the resources of agencies like WRC, PURC, FDA, and GSA will ensure more comprehensive regulation and monitoring

Improved Data Collection Systems

- Implementing advanced data collection technologies (mobile data systems and remote sensing) can help gather real-time water quality data from rural and hard-to-reach areas
- Encouraging the use of standardized reporting formats for local water boards and committees will improve the consistency and reliability of the data submitted to national regulators

CHALLENGES AND POSSIBLE SOLUTIONS IN WATER QUALITY MANAGEMENT CONT'D

Possible Solutions

Enhanced Coordination Among Agencies

- Better collaboration between agencies like WRC, GWL, CWSA, Private enterprises and producers can ensure harmonized efforts in monitoring and regulating water services
- A national inter-agency task force on water quality, supported by regular communication and data sharing, can help address cross-cutting issues and ensure effective enforcement of regulations

Public-Private Partnerships (PPP)

- Engaging the private sector in capacity building and investment in water supply infrastructure, particularly in peri-urban and informal areas, can help address resource shortages and improve regulatory reach

GHANA'S JOURNEY SO FAR

- Ghana's experience in monitoring and regulating public drinking water services reflects a mixture of progress, challenges, and learning opportunities.
- While the regulatory framework has been strengthened, ongoing challenges related to informal water providers, data collection, and infrastructure call for increased investment and inter-sectoral collaboration to ensure safe drinking water for all

Lessons Learned

Ghana has learned the importance of sustainable water resources management, factoring in population growth and climate change

- The need for increased investment in infrastructure upgrades (particularly for aging systems in urban areas) has been highlighted to meet growing water demands and ensure compliance with quality standards
- The country is increasingly focusing on climate-resilient infrastructure to protect water resources and maintain supply in the face of changing weather patterns
- Ghana has increasingly adopted a risk-based management approach to water safety, in line with the World Health Organization (WHO) guidelines. This includes the implementation of Water Safety Plans (WSPs), which focus on identifying potential hazards and controlling risks from the water source to the consumer

THANK YOU