



# WASH PLANNING

## TOOLKIT FOR METROPOLITAN, MUNICIPAL AND DISTRICT ASSEMBLIES

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DECEMBER 2021







## Foreword

Over recent years, Ghana has witnessed an improvement in the coverage of water and sanitation services, as well as good hygiene practices. In spite of these improvements, there are challenges with planning, coordination, financing, and the quality of WASH services that, if not addressed, will significantly hinder our progress towards achieving goal six of the 2030 Sustainable Development Agenda.

This toolkit provides relevant steps and guides to help WASH stakeholders tackle these challenges. It is designed to assist in bridging some identified gaps in WASH interventions and further support planning for practical implementation on Life-Cycle Costing, WASH inventory, Water Safety Planning, and WASH governance. Ultimately, the tool will provide guidance to support systematic data collection, participation, documentation and analysis of WASH interventions.

The preparation process involved a review of District WASH plans, relevant policy documents and literature, and insights from WASH practitioners and experts. The draft document was also subjected to peer reviews and discussions at the 2021 National Learning Exchange, jointly organized by IRC and NDPC.

We encourage all stakeholders to use the tool and share their experiences with all peers in order to ensure quality WASH implementation and beneficial outcomes for all.



A handwritten signature in blue ink, appearing to read 'Kodjo Mensah-Abrampa'.

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## Acknowledgement

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# Table of Contents

<b>Foreword</b>	<b>i</b>	<b>8.1 Awareness Creation</b>	<b>8</b>
<b>Acknowledgement</b>	<b>ii</b>	<b>8.2 Behavioural Change communications</b>	<b>9</b>
<b>Table of Contents</b>	<b>iii</b>	<b>8.3 Monitoring and Evaluation (M&amp;E)</b>	<b>9</b>
<b>List of Figures, Tables and Boxes</b>	<b>iv</b>	<b>ANNEX 1: TEMPLATE ON LIFE CYCLE COSTING</b>	<b>11</b>
<b>List of Abbreviations</b>	<b>v</b>	<b>Annex 2: WASH ASSET REGISTER</b>	<b>12</b>
<b>1.0 Introduction</b>	<b>1</b>	<b>ANNEX 3: LIST OF WASH TOOLKITS</b>	<b>13</b>
<b>2.0 Structure of the Toolkit</b>	<b>1</b>	<b>ANNEX 4: WASH SERVICE CONCEPTS AND TERMINOLOGIES</b>	<b>14</b>
<b>3.0 Life- Cycle Costing</b>	<b>1</b>	<b>Annex 5: WASH Planning</b>	<b>15</b>
3.1 Undertaking Life-Cycle Costing	1	<b>References</b>	<b>16</b>
3.2 Stages involve in Life-Cycle Costing	2		
<b>4.0 WASH Inventory</b>	<b>5</b>		
<b>5.0 Water Safety Planning</b>	<b>5</b>		
<b>6.0 Water Quality Testing</b>	<b>6</b>		
7.1 WASH Policy Frameworks	7		
7.2 WASH Institutional Arrangement	7		
7.3 Stakeholder Identification Analysis and Mapping	7		
7.4 Principles for effective WASH governance	8		
<b>8.0 Enabling Environment for Mainstreaming WASH at the Sub-National Level</b>	<b>8</b>		



# List of Figures, Tables and Boxes

## List of Figues

Figure 1: Life Cycle Costing	2
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## List of Tables

Table 1: Checklist for Conducting Lifecycle costing	3
Table 2: Life Cycle Cost Concepts	3
Table 3: Water Testing Parameters (Basic)	6
Table 4: Monitoring Matrix	9

## List of Boxes

Box 1: WSP Pillars	6
Box: 2: WASH Decisions and Governance Systems	7
Box: 3: The World Water Assessment Programme Principles of Good Governance	8





# List of Abbreviations

SDGs	Sustainable Development Goals
MICS	Multiple Indicator Cluster Survey
MMDAs	Metropolitan, Municipal and District Assemblies
WASH	Water, Sanitation and Hygiene
ASWA	Accelerated Sanitation and Water for All
VNR	Voluntary National Review
PWDs	Persons with Disabilities
LI	Legislative Instrument
R&D	Research and Development
NGOs	Non-Governmental Organisations
NWP	National Water Policy
WATSAN	Water and Sanitation
ODA	Official Development Assistance
NDWQMF	National Drinking Water Quality Management Framework
WASPs	Water Safety Plans
CSIR	Council for Scientific and Industrial Research
GWCL	Ghana Water Company Limited
WHO	World Health Organisation
GSA	Ghana Standards Authority
NDPC	National Development Planning Commission
MLGDRD	Ministry of Local Government, Decentralisation and Rural Development
WRC	Water Resources Commission
CWSA	Community Water and Sanitation Agency
CONIWAS	Coalition of NGOs in Water and Sanitation
M&E	Monitoring and Evaluation
WSMTs	Water and Sanitation Management Teams
WSDBs	Water and Sanitation Development Boards
ODF	Open Defecation Free
TEC	Technical Committee





## 1.0 Introduction

The 2021 Housing and Population Census indicated that about 92.2 percent of households have access to improved water sources, with about 87 percent of the population having access to at least basic drinking water service (both safely managed and basic drinking water services). The main sources of water are sachet water, pipe-borne water, and borehole/tube wells. According to the 2018 Multiple Indicator Cluster Survey, approximately 76 percent of households are at risk of drinking water contaminated with faecal matter, which is a potential public health threat. In 2021, access to at least basic sanitation service stood at about 22 percent, and open defecation was estimated at 18 percent, while the proportion of the population practicing basic hygiene was 42 percent. In all cases, access to WASH services was higher in urban than rural areas.

The WASH Sustainability Checks (2021) under the Accelerating Sanitation and Water for All (ASWA) programme revealed that some of the water and sanitation facilities procured over a period were nonfunctional, which partly hindered efforts made in reducing open defecation in the areas of concentration. While access to water services is generally high, sections of the population still lack access to some water facilities, while others do not have adequate supply to meet their daily needs. The rapid assessment conducted for the preparation of the 2022 VNR also confirmed that a number of communities do not have access to water and sanitation facilities, while PWD groups have huge challenges accessing these facilities. These findings confirm the need to procure more WASH facilities to address the gaps and ensure they are managed for sustainable service delivery.

Some of the reasons hindering universal access to basic water and sanitation services in the country include (a) poor planning; (b) unsustainability of WASH service; (c) weak governance and accountability; and (d) inadequate investment in the sector. The rising demand for WASH services in the country requires the need to strengthen planning, implementation and reporting at the Metropolitan, Municipal and District Assembly level to ensure no one is left behind.

This WASH toolkit provides a simple guideline to address some of the critical WASH issues. Specifically, it provides tools to understand and plan for WASH life cycle costing, WASH inventory, water safety planning, and strengthening WASH governance. The toolkit is also a good reference material for MMDAs and stakeholders to inform WASH planning and implementation. This toolkit is aimed at

facilitating good practices in the delivery of sustainable WASH services.

## 2.0 Structure of the Toolkit

The WASH Planning Toolkit is divided and organised into specific areas of focus. The first section introduces the background and rationale of the toolkit. The second part details information on how to implement some WASH approaches. These include life-cycle costing, WASH asset register, Water quality testing, and WASH governance. The toolkit also contains annexes of WASH tools, a simple WASH planning guide, and WASH service concepts and terminologies.

## 3.0 Life- Cycle Costing

Achieving universal coverage of WASH services requires significant investment in WASH infrastructure and other assets for sustainable service delivery. Life-cycle costing is defined as the cost of assets or its parts through their life span, while fulfilling the performance requirements. A Life-cycle cost assesses the full costs of delivering adequate water, sanitation and hygiene (WASH) services to a specific population in a particular geographic area in a sustainable manner. These analyses include construction, operations, maintenance, disposal of systems, direct and indirect support (e.g., training, planning and institutional support) in the short to long term. It further informs planning, targeting and budgeting for sustainable WASH services. It can also improve governance, and cost effectiveness for adequate and sustainable service delivery.

Timely repairs and replacements limit interruption of WASH assets help to avoid the reverse of positive WASH outcomes in open defecation and accessing safe drinking water.

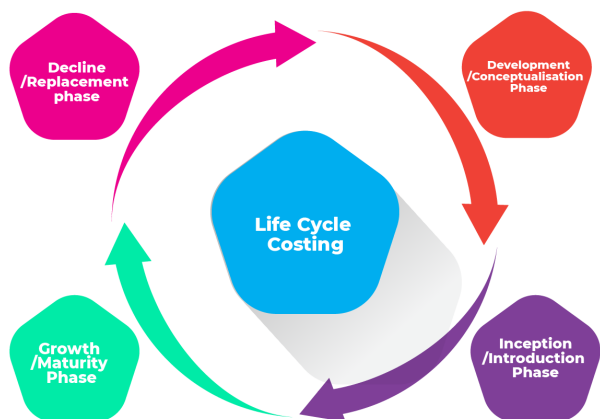
### 3.1 Undertaking Life-Cycle Costing

In conducting life-cycle costing for WASH, there are three main parameters to consider. It is important to know the status of the WASH infrastructure (asset inventory) within the district or community. Secondly, information on budget and sources of finance is also crucial. Knowledge on budget and sources of finance provides information on WASH expenditures, asset management, and operations. Finally, it is important to understand the efforts required to inform projections in order to attain sustainable universal coverage for WASH services in the district.

The LI 2378 of the Public Financial Management Act 2016, (Act 921) requires

that District medium term development plans should specify the life time and total cost of new and ongoing programmes/project. In view of this, the composite and annual action plans should include activities and expenditure on required WASH assets, as well as expenditures on maintenance and operation on services for both new and ongoing programmes or projects.

**Figure 1: Life Cycle Costing**



**Inception Phase:** This phase of the cycle focuses on the entire cost of putting up the facility.

- Capital Expenditure – The initial cost invested in the construction or expansion of fixed assets. This component is a one-off cost which include both hardware and software costs.
- Cost of Capital: It is a recurrent expenditure that could involve interest payments on micro-finance and any other loans.

Example of hardware cost – cost of pipes, pumps, excavations, latrines, lining, and concrete structures examples of software cost – cost of community training, consultation costs among others.

WASH TOOLKIT

### 3.2 Stages involve in Life-Cycle Costing

Life-cycle costing approach accounts for all aspects of the infrastructure and service, from conceptualization, design, construction, operations, maintenance and eventual replacement. Conventionally there four identified stages in WASH life cycle costing (Figure 1):

- Development phase - R&D and design costs
- Introduction phase – promotional and capacity costs
- Growth phase/Maturity – production, distribution, and product support cost
- Decline/Replacement phase – asset reused/sold/scrapped/disposal cost/ and related costs

**Development Phase (R&D/Design cost):** The development phase takes into consideration the conceptualization of the service, including the cost for undertaking feasibility studies, facility design, project budgeting, tender reviews, among others.

<b>One Time Expenditure</b>	✘ Capital Expenditure
<b>Recurrent Expenditure</b>	✘ Cost of Capital ✘ Operation and Minor Maintenance Expenditure ✘ Expenditure on Direct Support ✘ Expenditure on Indirect Support

**Growth Phase/Maturity:** This phase focuses on the entire life span of the project which includes operations of the facility, maintenance and management of the facility. The following are some cost lines that should be considered:

- Expenditure on direct support: expenditure on structured support (post construction) to service providers or users related to the operation and management of WASH service. This includes monitoring, technical, legal or administrative support
- Expenditure on indirect support: expenditure on creating and supporting the enabling environment for WASH services, including macro-

- level planning, policy making and capacity support at decentralised service authorities or local government
- Operation and minor maintenance expenditure: regular expenditure on running costs such as wages, fuel, and cleaning products. It includes minor repairs and maintenance.
  - ☒ Capital Maintenance Expenditure (asset

renewal and replacement cost): occasional and lumpy costs that seek to restore the functionality of a system, such as replacing a hand pump or emptying a septic tank.

- ☒ Decline/Replacement Phase (asset reused/sold/scrapped/related costs): these are cost that are incurred in disposing off the facility or components of it.

**Table 1: Checklist for Conducting Lifecycle costing**

1.	Have system boundaries been identified?
2.	Have you itemized cost lines in the development phase? e.g. cost involved in meeting with key stakeholders, research/ feasibility study, design cost, tendering, among others
3.	Clearly estimate the cost of construction, including cost of capital if it is not an investment from government
4.	Outline the cost of operating the facility, maintenance and management of the facility, taking into consideration the lifespan of the facility with projected inflation.
5.	Identify the recurrent cost of providing indirect support, such as policy making and planning at the local level, that will enhance the enabling environment
6.	Clearly identify what it will cost to maintain/renew/replace the facility
7.	Identify the cost of disposing off the facility

**Table 2: Life Cycle Cost Concepts**

1.	<i>Costing method</i>	Cost should be calculated based on the population to be covered with each type and level of service in the base year of the project and projected population changes (taking into account rural-urban migration) between the year of initiation and the expected life span of the service provided. Cost estimates are made by multiplying the population to be covered with a service by the cost per capita of providing the service. Distinction is made between capital investment, capital maintenance and operations costs. Software costs are also included as a separate cost under Capital Costs, as well as service levels, coverage numbers and cost estimates.
2.	<i>Coverage in target year</i>	Costs should be estimated based on achieving universal access (100%) by 2030. However, if this target is unrealistic in your district, it is possible to adjust the target coverage to less than 100%.
3.	<i>Choice of technology</i>	Cost calculations should be specific based on technology options or depending on the service. i.e. basic water and sanitation, or safely managed sanitation, there are two options. Hence, the proportion of population receiving each of these two options should be clearly outlined.



4. <b>Cost</b>	<p>1. Capital costs (CapEx) are presented in terms of total cost per person reached. If local cost data is available for an entire area or per household, - the costs will need to be divided by the appropriate population covered to arrive at a cost per person reached. The following three variables can be adjusted:</p> <ul style="list-style-type: none"> <li>i. Capital cost per person reached: These typically include the funds spent on hardware or infrastructure, and the costs of physically putting it into place (labour, equipment, etc.).</li> <li>ii. Software cost per person reached with the hardware. These costs are necessary to sensitise populations to the intervention and/or change their behaviours and/or generate demand for the service. It can also include other programme, management or administrative costs if not included under the hardware costs .</li> <li>iii. Duration of life (lifespan) of the capital hardware, in years, before it needs to be completely replaced.</li> </ul>
5. <b>Capital maintenance cost (CapManEx)</b>	<p>These costs represent the rehabilitation or renovation of infrastructure to extend its lifespan</p> <ul style="list-style-type: none"> <li>i. Maintenance cost per person reached. These typically include the funds spent on hardware (parts) and the costs of physically putting it into place (labour, etc).</li> <li>ii. Duration of life (lifespan) of the capital hardware, in years, before it needs capital maintenance to extend it to its full lifespan. It is assumed that about 30% of the capital cost may need to be spent again after half of the expected lifespan of the hardware.</li> </ul>
6. <b>Operating cost (OpEx) per person reached, per year</b>	<p>These reflect recurring costs to provide the service, including labour, materials, chemicals, energy, transport, and overheads</p>
7. <b>Cost recovery</b>	<p>In order to estimate the financing required from public sources to extend coverage to the unserved and keep existing services operating, it is necessary to identify the ratio of costs to be covered directly by consumers (from tariffs or other fees for goods and products) versus the costs to be supported by public subsidies. The latter can include non-repayable grants provided by governments or other partners (e.g, bilateral donors, NGOs, other charities), which reduce the price faced by the consumer. Hence, the expected division of costs between public sources and the consumer needs to be entered here. Where possible, the values entered for cost recovery should reflect current national policy, or if there is none, a realistic policy option of cost sharing between consumers and the public sector. The public plus private portions must sum to 100% by row (e.g. 30% public and 70% private, or 10% public and 90% private) to ensure the costs are 100% financed.</p>
8. <b>Discount rate</b>	<p>The discount rate is used to estimate the present value of future costs, and is based on the economic theory of time preference for money (confirmed by the fact that interest rates offered by banks on savings accounts are usually positive). The higher the discount rate, the more future costs will be discounted when valued at the present time. The default discount rate of 5%, reflects a value often chosen by governments to be used in the economic evaluation of public sector projects.</p>

9. **WASH expenditure** Funding data should be gathered, where possible, on four main funding sources: national government budget; decentralised government budget; and current ODA or other non-governmental contributions (distinguished between repayable loans and non-repayable grants). Preferably, expenditure data should be used rather than budget data. The expenditure figures obtained commonly include hardware and software. This will be for both new service coverage and operation, maintenance and replacement of existing services.

## 4.0 WASH Inventory

Achieving universal access to improved WASH services in a sustainable manner requires the need to implement a robust plan for operations and management. Implementation of an operations and management plan optimises the value and use of WASH facilities at the district and community level. A WASH inventory template, also referred to as WASH asset register, is a rapid assessment tool that facilitates the operations and management of physical infrastructure assets.



Inventorying WASH assets provides data for planning and budgeting for operations and management. It also provides information to conduct regular monitoring to improve the value and performance of WASH facilities.

District assemblies and other stakeholders can also use information from the database to maintain WASH assets by drawing preventive, corrective, and reactive measures. In addition, stakeholders can leverage on the tool for further assessment of the demand and supply concerns for WASH facilities.

A well designed and followed through WASH asset inventory template helps in building an up-to-date database on WASH assets. Elements of the inventory or register include

conditions, location, maintenance schedule, ownership and performance (see Annex 2). WASH asset register database could be generated, retrieved and analysed in a simple Microsoft excel sheet or any information management system.

## 5.0 Water Safety Planning

There are various drinking water sources in the country and the most predominant among them include ground water, rain water and surface water. Safely managed drinking water access is essential for improved health and wellbeing. Water safety planning has been adopted as an approach to drinking water quality assurance. Water safety planning is a key WASH tool defined in the National Drinking Water Quality Management Framework (NDWQMF). It helps to identify, prioritise and mitigate key risks across the water supply delivery chain.

This section provides a step-by-step guide for the development of the Water Safety Plans (WSPs) ensure the delivery of safe water to rural communities and small towns. It also points to critical actions for monitoring the effectiveness of the plans and for plan verification by the relevant regulators. Water safety planning should be incorporated into WASH plans (see Box 1).



**Box 1: WSP Pillars**

Every water system or source is expected to have its own water safety plan to improve drinking water quality. The following are pillars considered under Water Safety Planning:

- i. Description of water source or system catchment area
- ii. Hazard and risk assessment
- iii. Monitoring and control measures
- iv. Verification, documentation and communication

**How to Prepare a Water Safety Plan**

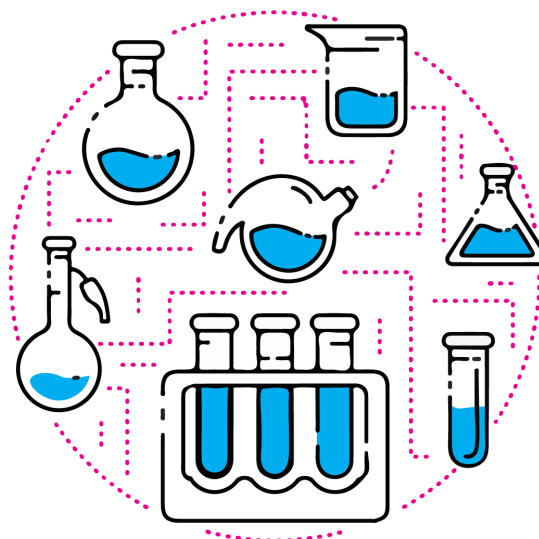
- i. *Description of water sources or system catchment area*
- ii. *Risk and hazard assessment:* Assessment of the drinking water supply system, water supply system

analysis, assessment of water quality data, hazard identification and risk assessment

- iii. *Preventive/mitigation measures:* Preventive measures for drinking water quality management and multiple barriers and critical control points
- iv. *Monitoring and control measures:* Operational procedures, operational monitoring, corrective action, equipment capability and maintenance, materials and chemicals
- v. *Verification of drinking water quality:* Drinking water quality monitoring, consumersatisfaction, documentation, and communication of results.

**6.0 Water Quality Testing**

As part of implementing monitoring and control measures under a water safety plan, water quality tests are conducted. The Community Water and Sanitation Agency has provided guidance on water quality testing to help guarantee the supply of wholesome water. The table below (table 3) provides a summary of information on water quality testing parameters, testing intervals, institutions or stakeholders that conduct water quality tests and benchmarks among others.

**Table 3: Water Testing Parameters (Basic)**

Parameters to consider for testing	<ul style="list-style-type: none"> <li>✘ Physical and chemical</li> <li>✘ Microbial (bacteriological)</li> <li>✘ Total analysis which includes physico and microbial</li> </ul> <p>A total analysis is recommended because of the opportunity to produce more data for detailed analysis of a drinking water source</p>
Sampling/Testing	<p>Water quality sampling can be done by CSIR (Water Research), GWCL and trained personnel.</p> <p>Testing can be done at CSIR Labs, GWCL labs and by other recognized personnel with insitu test kits</p>
Testing Interval	Water quality testing should be done at least twice in a year
Standards/Benchmarks	Laboratory results for drinking water quality test is expected to be within GSA and WHO standards. However, in the event where results fall outside these benchmarks options for remedy treatment should be employed



## 7.0 WASH Governance

WASH governance refers to the political, social, economic, and administrative systems in place that influence the use and management of water and sanitation services. It includes policies, regulations, institutional arrangement, decision-making processes and stakeholder relations. At the local level, community members participate in the planning and management of WASH through elected Water and Sanitation (WATSAN) Committees, Local Water Boards, Water and Sanitation Development Boards, Unit Committees and Area Councils. One of the aims of this structure is to help community members secure their WASH services. WASH decisions are usually linked to governance systems across three levels: government, civil society and the private sector. Maintaining dialogue and partnerships among these levels is vital for WASH governance and implementation.

### Box: 2: WASH Decisions and Governance Systems

This includes:

- Allocating and distributing WASH services equitably and efficiently, and integrating management approaches
- Forming and implementing WASH strategies, by-laws and committees
- Clarifying the roles of MMDAs, civil society and the private sector and their responsibilities for owning, managing and administering water

## 7.1 WASH Policy Frameworks

The sector is guided by a number of laws, policies and strategies including the Coordinated Programme of Economic and Development Policies; the National Development Policy Frameworks; Water and Sanitation Sector Strategic Development Plan (2012-2025); National Water Policy (NWP) among others.

## 7.2 WASH Institutional Arrangement

It is critical to familiarise oneself with the WASH institutional arrangements, including government, private entities and NGO organisations. There are many government stakeholders in the WASH sector. Key amongst them are the Ministry of Sanitation and Water Resources which is responsible for providing leadership for water sector activities in policy development, implementation, coordination, monitoring and evaluation. Some main agencies are the Water Resources Commission (WRC), Ghana Water Company Limited (GWCL) and Community Water and Sanitation Agency (CWSA). Further, the Ministry of Local Government,

Decentralisation and Rural Development (MLGDRD), the National Development Planning Commission (NDPC) all have important functions and responsibilities in the water sector. The Metropolitan, Municipal and District Assemblies (MMDAs) are the highest local political authorities mandated to provide basic infrastructure and services to support social and economic development including WASH facilities.

Some of the WASH private sector and CSO stakeholders include Coalition of NGOs in Water and Sanitation (CONIWAS); IRC; Water Tanker Owners Association and Access4Development.

## 7.3 Stakeholder Identification Analysis and Mapping

Stakeholders are people, groups, or organisations with varied needs whose interests can be affected (positively or negatively) by development interventions and must therefore be taken into account before, during, and after their implementation. Good stakeholder identification and analysis can help map out all primary and secondary stakeholders. Knowledge of the WASH institutional arrangement and its analysis can be used as a guide to identify stakeholders, their needs and interests. Stakeholder mapping and their power analyses also help in identifying unofficial yet influential stakeholders, as potential allies or adversaries of a WASH intervention. Further mapping the relationships between actors and their networks of influence helps in determining which stakeholders to target for advocacy purposes.

Stakeholder analysis help to classify the stakeholders identified as targets, allies, opponents, or beneficiaries of an intervention



## 7.4 Principles for effective WASH governance

Good WASH governance principles include consensus, predictability (rule of law); ethics (control of corruption); and open, transparent and broad participation. Efficiency, another

principle, is a measure of the extent to which goals are achieved with minimum use of resources. Broad participation<sup>1</sup> relies on government at all levels following an inclusive approach. Further details on water which are also applicable to WASH can be seen in box 3.

### How to integrate the governance principles into WASH interventions?

- i. Make WASH information accessible to all citizens and make it clear on how they could be accessed.
- ii. Create management committees at appropriate levels.
- iii. Promote stakeholder participation, emphasizing gender balance.
- iv. Increase citizen awareness of the benefits, value and culture of good WASH practices.
- v. Collaborate with the media, especially community radio, to constructively work on their role in WASH interventions.
- vi. Build capacity of WATSANS and citizens on the principles of good WASH governance.
- vii. Monitor and evaluate (M&E) including participatory M&E WASH for good peer learning.
- viii. Put remedies to negative WASH research outcomes.
- ix. Institute and sustain fair and socially sensitive valuation and cost recovery.

#### Box 3: The World Water Assessment Programme Principles of Good Governance

**Participation:** Citizens, both men and women, should have a voice directly or through intermediaries representing their interests in policy and decision-making.

**Transparency:** Information should flow freely within a society; processes and decisions should be clear and open for public scrutiny.

**Equity:** Groups in society, both men and women, should have equal opportunities to improve their wellbeing.

**Accountability:** Governments, the private sector and civil society organizations should be answerable to the public or the interests they are representing.

**Coherence:** The increasing complexity of water issues, policies and actions, demands that they are made logical, consistent and easily to understood.

**Responsiveness:** Institutions and processes should serve all stakeholders and respond properly to preferences, changes in demand or other new circumstances.

**Integration:** Water governance should enhance and promote integrated and holistic approaches.

**Ethics:** Water governance must be based on the ethical principles of the society where it functions—for example, by respecting traditional water rights.

*Source: Rogers and Hall 2003; IRG 2009*

## 8.0 Enabling Environment for Mainstreaming WASH at the Sub-National Level

Good governance requires appropriate conditions and an enabling environment. Below are a few interventions that can engender a good enabling environment.

### 8.1 Awareness Creation

The purpose of this awareness raising is to increase stakeholders' sensitivity, understanding, knowledge and decisions about WASH. Promoting understanding of the benefits and challenges related to WASH

in a district has the potential to change attitudes, behaviours and beliefs that affect WASH interventions.

Engage in activities such as awareness creation, behavioural change communications, monitoring and evaluation, that will create an enabling environment for WASH interventions to thrive.

<sup>1</sup> Indicator type refers to whether indicator is an input/process/output/outcome/impact indicator.

### 8.3 Monitoring and Evaluation (M&E)

Monitoring and evaluation (M&E) is an indispensable tool for measuring performance and outcomes in any endeavour. It can be used to ascertain the extent to which efforts and interventions in addressing WASH challenges are functioning or otherwise. WASH monitoring should focus on measuring progress in accessing and sustainability WASH services. This includes selecting indicators around hardware, software, and financing activities from the POA and AAPs when preparing the DMTDPs. The indicators should however, be selected along the results levels (input, output, outcome and impact) where necessary. Please check the National Monitoring and Evaluation Manual and the 2022-2025 Planning Guidelines for further details on how to conduct M&E and communicating M&E findings.



### 8.2 Behavioural Change communications

Disseminations and communications that trigger positive change towards WASH should reach all stakeholders. Monitoring and Evaluation findings should be customised to meet the needs of both primary and secondary stakeholders.



Table 4: Monitoring Matrix

Goal 1:										
Programme 1:										
Sub- Programme 1										
Indicators	Indicator Definition	Indicator Type <sup>2</sup>	Base-line 2021	Targets				Disaggregation	Monitoring Frequency	Responsibility
				2022	2023	2024	2025			

2 Indicator type refers to whether indicator is an input/process/output/outcome/impact indicator.



Programme 1

Sub- Programme 2

Indicators	Indicator Definition	Indicator Type	Base-line 2021	Targets				Disaggregation	Monitoring Frequency	Responsibility
				2022	2023	2024	2025			



# ANNEX 1: TEMPLATE ON LIFE CYCLE COSTING

SERVICE	COMMUNITY	TYPE OF TECHNOLOGY	SERVICE COVERAGE LEVEL BASE YEAR	SERVICE COVERAGE LEVEL BASELINE DATA	COVERAGE TARGET 2030	FINANCIAL COST PER CAPITA (US\$ in 2020) with DISTRIBUTION OF COST RECOVERY														
						CAPITAL COSTS (TOTAL)					MAINTENANCE COSTS (TOTAL)				OPERATING COSTS (ANNUAL)				DISPOSAL COST	
						COSTS			COST RECOVERY (%)		COSTS		COST RECOVERY (%)		COSTS		COST RECOVERY (%)		COST	COST RECOVERY
						CapEx	Software	Duration	Customer	Subsidy	CapEx	Duration	Customer	Subsidy	CapEx	Customer	Subsidy	Customer	CapEx	Customer
Water		Mechanised borehole			100%				20%	80%			20%	80%		80%	20%			
		Water quality testing			100%				20%	80%			20%	80%		80%	20%			
		Septic tank			100%				20%	80%			20%	80%		80%	20%			
Sanitation		Septic tank with treatment (FSM)			100%				20%	80%			20%	80%		80%	20%			
		Sewerage with treatment																		
		Pit latrine with treatment (FSM)			100%				20%	80%			20%	80%		80%	20%			
Hygiene		Mobile facility with soap and water			100%				20%	80%			20%	80%		80%	20%			

## Annex 2: WASH ASSET REGISTER

Asset name	Asset type		Unique identifier	Year acquired/ constructed	Location		Catchment area	Population served	Ownership			Facility condition		Last service date	Next service date	Who	Performance	
	Mechanised	Non-mechanised			Community	GPS			Public	Private	CSO	Broken down	Rehabilitation					New facility <sup>1</sup>
Asalako water system			BA09900	2015	Asaloko	GE-329-2075	125,600 m <sup>2</sup>	300	√	-		No	No	No	06.8.20	20.12.21	DA	functional



## ANNEX 3: LIST OF WASH TOOLKITS

Objective	Focus Areas	Guidelines
Improve planning in water, sanitation, and hygiene	<ul style="list-style-type: none"> <li>Assessment of status of the existing WASH infrastructure (inventory, functionality, distance, reliability, and water quality). A lite version could focus on updating existing inventory, and establishing functionality and quality in a few sample facilities</li> <li>Identifying gaps (unreached, non-functional, quality)</li> <li>Prioritizing key areas for intervention with strategies</li> </ul>	<p>Framework for Assessing And Monitoring Rural And Small Town Water Supply Services In Ghana - <a href="https://www.ircwash.org/sites/default/files/framework_assessing_and_monitoring_rural_and_small_towns_wss_in_ghana.pdf">https://www.ircwash.org/sites/default/files/framework_assessing_and_monitoring_rural_and_small_towns_wss_in_ghana.pdf</a></p> <p>How-To-Do Guide for Functionality And Service Monitoring -<a href="https://cwsa.gov.gh/wp-content/uploads/2020/01/How-To-Do-Guide-SS.pdf">https://cwsa.gov.gh/wp-content/uploads/2020/01/How-To-Do-Guide-SS.pdf</a></p>
Improve WASH costing and budgeting	<ul style="list-style-type: none"> <li>Establishing the cost for the identified areas (new investment, capital, maintenance, and supervision/monitoring)</li> <li>Prioritizing WASH in MTDP and budgeting</li> </ul>	<p>Collecting data for a life-cycle cost approach (LCCA) to water service delivery at the district level - <a href="https://www.ircwash.org/resources/collecting-life-cycle-cost-data-wash-services-guide-practitioners">https://www.ircwash.org/resources/collecting-life-cycle-cost-data-wash-services-guide-practitioners</a></p> <p>Costing and financing sustainable WASH services in Asutifi North District - <a href="https://www.ircwash.org/sites/default/files/costing_study.pdf">https://www.ircwash.org/sites/default/files/costing_study.pdf</a></p>
Support to strengthen governance for sustainable WASH services	<ul style="list-style-type: none"> <li>MMDAs and CWSA have clarity on their roles and responsibilities</li> <li>MMDAs provide oversight and technical support to water and sanitation management teams (WSMTs)- formerly WATSAN and WSDBs</li> <li>Put accountability mechanisms in place to improve revenue and enhance transparency in the provision of services</li> </ul>	<p>Objectives of the Reform - Community Water and Sanitation Agency (cwsa.gov.gh)</p> <p>Trainer's guide for WATSAN training (1997) - <a href="https://www.ircwash.org/sites/default/files/202.6-97TR-14783.pdf">https://www.ircwash.org/sites/default/files/202.6-97TR-14783.pdf</a></p>

## ANNEX 4: WASH SERVICE CONCEPTS AND TERMINOLOGIES

<b>Water</b>	<ul style="list-style-type: none"> <li>• Basic drinking water service : an improved source of water that can be accessed within a 30-minute round trip. Improved source include: piped water, boreholes or tube wells, protected dug wells, protected springs, and packaged or delivered water.</li> <li>• Safely managed drinking water service : improved source, located on premises, available when needed and free from chemical or fecal contamination</li> </ul>
<b>Sanitation</b>	<ul style="list-style-type: none"> <li>• Basic sanitation service: an 'improved' sanitation facility that is for the exclusive use of a single household</li> <li>• Safely managed sanitation service: an improved facility with the safe extraction, conveyance, treatment and disposal</li> </ul>
<b>Hygiene</b>	<ul style="list-style-type: none"> <li>• Basic hygiene service : presence of handwashing station, water and soap (or other appropriate cleaning material)</li> </ul>

## Annex 5: WASH Planning

Planning Areas		
Prioritised WASH Issues/WASH Objectives/Programme of Actions/ Annual Action Plans/M&E/WASH Financing		
Water Services and Management	Sanitation/Hygiene Services and Management	Budget
Water supply: infrastructure (hardware) and systems for households, institutions, and communities	Sanitation: infrastructure (hardware) for households, institutions, and communities Infrastructure for solid and liquid waste management (collection, containment, treatment and disposal)	Investment, operations and maintenance, large capital and maintenance costs, support or software costs
Commodities: point-of-use water treatment technologies (chlorine, filters) and water storage containers	Commodities: Distribution of hygiene products (soap, menstrual pads, handwashing facility components, such as containers)	
Support/Software: water safety campaigns, training, marketing	Support/Software: Handwashing campaigns, promotion of hygiene practices, sanitation marketing	



## References

1. National Development Planning Commission (2014). National Monitoring and Evaluation Manual. Accra, Ghana.
2. National Development Planning Commission (2020). Guidelines for the Preparation of Sector and District Medium-term Development Plans. Accra, Ghana.
3. Community Water and Sanitation Authority (2014). District Operational Manual. Accra, Ghana.
4. World Health Organization & International Water Association. (2009). Water safety plan manual: step-by-step risk management for drinking-water suppliers. World Health Organization.
5. Rogers, Peter & Hall, Alan. (2003). Effective Water Governance. Background Papers No.7, Global Water Partnership Technical Committee (TEC). Stockholm, Sweden. Available at: [https://www.researchgate.net/publication/42765754\\_Effective\\_Water\\_Governance](https://www.researchgate.net/publication/42765754_Effective_Water_Governance)
6. Ministry of Water Resources, Works and Housing (2015). National Drinking Water Quality Management Framework for Ghana. Accra, Ghana.
7. Ghana Statistical Service (2018). Multiple Indicator Cluster Survey (MICS2017/18); Survey Findings Report. Accra, Ghana.
8. Ministry of Water Resources, Works and Housing (2007). National Water Policy. Accra, Ghana.
9. Ministry of Water Resources, Works and Housing (2014). Water and Sanitation Sector Strategic Development Plan (2012-2025). Accra, Ghana.
10. Ghana Statistical Service (2021). 2021 Population and Housing Census
11. National Development Planning Commission (2021). Annual Sustainability Checks; 2021 Assessment Report

