Sustainable WASH Financing Strategy for Rural and Small-Town Areas (2026 – 2031)

Strengthening Sustainable Financing for Universal Access to Water, Sanitation and Hygiene (WASH) Services

Developed By:
The Government of Cross River State
Ministry of Water Resources

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Foreword

Safe and sustainable water, sanitation, and hygiene services are essential for public health, human dignity, environmental sustainability, and socio-economic development. In Cross River State, improving WASH services remains a priority, particularly across rural and small-town communities where infrastructure gaps, weak maintenance systems, and financing constraints continue to affect service reliability.

The **Cross River State Sustainable WASH Financing Strategy for Rural and Small-Town Areas (2026–2031)** builds on the Cross River State WASH Policy and the State's Rural WASH Investment Framework. While these frameworks established the foundation for expanding WASH services, this strategy focuses on the financing systems required to sustain and scale investments over time. Importantly, the strategy adopts a lifecycle costing approach, recognising that sustainable WASH services require financing not only for infrastructure development, but also for operations, maintenance, rehabilitation, institutional WASH improvements, and broader sector support systems.

The strategy therefore provides a practical framework for mobilising and coordinating financing from government, households, development partners, the private sector, philanthropic actors, and communities, while strengthening sector governance, accountability, and long-term sustainability arrangements.

The development of this strategy benefited from consultations with State Ministries, Departments and Agencies, Local Government Areas, development partners, civil society organisations, technical stakeholders, and community representatives. Their contributions helped ensure that the strategy reflects the realities and financing challenges facing the sector.

The Cross River State Government remains committed to strengthening sector coordination, improving financing systems, supporting Local Government service delivery, and creating an enabling environment for sustainable investment across the WASH sector.

We expect that this strategy will guide investment prioritisation, financing mobilisation, and coordinated action towards achieving sustainable WASH services across rural and small-town communities in Cross River State.

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Acknowledgment

The Cross River State Ministry of Water Resources expresses sincere appreciation to all institutions, stakeholders, and technical partners who contributed to the development of the **Cross River State Sustainable WASH Financing Strategy for Rural and Small-Town Areas (2026–2031)**.

The Ministry acknowledges the valuable contributions of the Cross River State Rural Water Supply and Sanitation Agency (RUWATSSA), Cross River State Water Board Limited, the State Planning Commission, Local Government WASH Departments, the Cross River State Bureau of Statistics, and relevant State Ministries, Departments and Agencies whose technical inputs, sector data, and participation supported the strategy development process.

Special appreciation is extended to members of the State Task Group on WASH (STG-WASH) for their active participation during the co-creation and validation workshops. Their contributions helped strengthen the realism, relevance, and practicality of the strategy, particularly in relation to financing priorities, institutional arrangements, and sustainability considerations for rural and small-town WASH service delivery.

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Appreciation is further extended to development partners, civil society organisations, community representatives, and technical stakeholders who contributed insights and feedback throughout the development of the strategy.

The collaborative efforts demonstrated throughout this process reflect a shared commitment towards strengthening sustainable WASH financing and improving long-term service delivery across rural and small-town communities in Cross River State

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List of Abbreviations and Acronyms

CapEx	Capital Expenditure
CapManEx	Capital Maintenance Expenditure
CLTS	Community-Led Total Sanitation
CNC	Clean Nigeria: Use the Toilet Campaign
CRSWBL	Cross River State Water Board Ltd.
CWIS	Citywide Inclusive Sanitation
ExpDS	Direct Support Expenditure
ExpIDS	Indirect Support Expenditure
FSM	Faecal Sludge Management
LAM	Local Area Mechanics
LCC	Life Cycle Costing
LGA	Local Government Area
MFI	Microfinance Institution
MDAs	Ministries, Departments and Agencies
MHSP	Minimum Hygiene Service Package
MHHM	Menstrual Health and Hygiene Management
MoWRS	Ministry of Water Resources and Sanitation
OBA	Output-Based Aid
ODF	Open Defecation Free
O&M	Operations and Maintenance
OpEx	Operating Expenditure
PPP	Public–Private Partnership
PSO	Public Service Obligation
SBCC	Social and Behaviour Change Communication
RUWASSA	Rural Water Supply and Sanitation Agency
STOWA	Small Towns Water and Sanitation Agency
WCA	Water Consumer Associations
WASHCOM	Water, Sanitation and Hygiene Committee
WASH	Water, Sanitation and Hygiene
WASHIM	WASH Information Management System
3Ts + R	Taxes, Tariffs, Transfers + Repayable Finance

Executive Summary

The **Cross River State Sustainable WASH Financing Strategy for Rural and Small-Town Areas (2026–2031)** provides a structured pathway for achieving sustainable Water, Sanitation, and Hygiene (WASH) services across rural communities and small towns in the State. The strategy is informed by sector data, financial analysis, institutional assessments, and consultations with stakeholders across government, Local Government Areas, development partners, civil society, and community structures.

Challenge and Scale of Investment

Access to WASH services in Cross River State remains limited, particularly across rural and small-town communities. Significant numbers of households lack access to safe water and improved sanitation, while hygiene infrastructure and behaviour change outcomes remain weak.

However, the core challenge is not only limited access, but the structure of sector financing itself. Current financing patterns remain heavily capital-focused, with inadequate financing for operations, maintenance, rehabilitation, and broader system support. As a result, infrastructure expansion has not consistently translated into reliable and sustainable service delivery.

To address this, the strategy estimates a total rural and small-town WASH investment requirement of approximately ₦231.95 billion over the 2026–2031 period, equivalent to an annual average investment requirement of approximately ₦38.66 billion. The investment requirement covers water supply infrastructure, household sanitation, institutional WASH improvements, hygiene promotion, rehabilitation, operations and maintenance, and sector system strengthening.

The strategy adopts a sustainable lifecycle financing approach, ensuring that investments account not only for infrastructure development, but also for the long-term resources required to sustain services over time.

Current Financing and Financing Gap

Current financing levels remain significantly below what is required to deliver sustainable WASH services at scale.

The current indicative financing envelope is estimated at approximately ₦6.23 billion annually, combining State Government allocations, Local Government financing, and estimated household and community contributions. Public financing remains constrained by weak budget execution, fragmented financing flows, and limited allocation to operations and maintenance.

Households already play a major role in financing sanitation and small-scale service improvements, particularly through self-financed sanitation facilities and community contributions. However, household financing alone remains insufficient to address existing infrastructure and service delivery gaps.

Based on the estimated annual investment requirement of ₦38.66 billion, the sector faces an indicative annual financing gap of approximately ₦32.43 billion (84%). The effective financing

gap is likely to be even larger in practice due to persistent budget execution challenges and institutional capacity constraints.

Financing Strategy and Reform Pathway

This strategy provides a structured approach for closing the financing gap while strengthening the underlying WASH financing system. It adopts a 3Ts + R financing framework, aligning financing sources with different service delivery functions and lifecycle cost components.

Under this framework:

- public financing supports strategic infrastructure, regulation, coordination, and system strengthening.
- tariffs and user fees progressively support operations and maintenance.
- household financing contributes significantly to sanitation and community-level investments.
- development partner financing plays a catalytic role in system strengthening and targeted investments.
- private sector and philanthropic financing support sanitation markets, innovation, and supplementary infrastructure investment.

The strategy recognises that sustainable WASH financing for rural and small-town areas cannot rely on government financing alone. Achieving long-term sustainability will require a blended financing approach that combines public financing, household investment, federal programmes, development partner support, tariffs, private sector participation, and philanthropic contributions.

Within this framework, the State Government remains the core public sector anchor responsible for regulation, coordination, strategic infrastructure investment, and leveraging additional financing into the sector. Local Governments are expected to play a stronger role in financing operations, maintenance, sanitation promotion, and community-level service delivery, while development partners support sector system strengthening, technical assistance, innovation, and targeted infrastructure investments.

Implementation of the strategy is guided by a phased reform pathway. The first phase focuses on strengthening sector coordination, financing visibility, asset management, and budget tracking systems. The second phase prioritises improved revenue systems, increased Local Government financing, rehabilitation financing, and expanded blended financing arrangements. The final phase focuses on consolidating lifecycle financing systems, strengthening domestic financing, improving sustainability mechanisms, and expanding private sector participation in selected service areas.

Overall, the strategy represents a shift from infrastructure-focused financing towards a more sustainable and lifecycle-based WASH service delivery model, where financing is structured to support long-term functionality, institutional sustainability, and improved service outcomes across rural and small-town communities in Cross River State.

1. Introduction

1.1 Background and Rationale

Access to safe water, sanitation and hygiene services remains a significant development challenge in Cross River State. Although progress has been made in expanding basic water supply in recent years, many households continue to rely on unsafe water sources and inadequate sanitation facilities. These conditions contribute to preventable health risks, undermine productivity, and place continued pressure on households and public health systems.

Recent sector assessments highlight the scale of the challenge. While approximately 49 percent of residents have access to basic water services, only about 5 percent benefit from safely managed water supply. At the same time, an estimated 82 percent of households consume water contaminated with E. coli, exposing communities to widespread waterborne disease. Sanitation conditions remain equally concerning. Open defecation affects about 41 percent of the population, representing not only a major public health risk but also a profound dignity and environmental challenge.

Access conditions also vary significantly across the state. In rural areas, a substantial share of households continues to rely on unprotected water sources, while progress in sanitation coverage remains uneven across communities. Environmental and geographic factors further influence service delivery. Northern parts of the state experience seasonal water scarcity that affects water availability, while southern coastal areas are more exposed to flooding that can damage infrastructure and contaminate water sources.

Even where infrastructure has been installed, service reliability remains a persistent concern. Many water facilities experience frequent breakdowns or operate below capacity due to weak maintenance systems and limited support for routine operations. As a result, infrastructure investments do not always translate into sustained service delivery for communities.

Underlying many of these challenges is the way the sector has historically been financed and managed. Investments have often focused on expanding infrastructure, while less attention has been given to the systems required to operate, maintain, and rehabilitate services over time. This imbalance has contributed to recurring infrastructure failures and limits the long-term sustainability of WASH services. This reflects a broader structural pattern identified during stakeholder consultations, where capital investments are prioritised over service sustainability, resulting in a “build–decay–rehabilitate” cycle.

Institutional and governance constraints also affect sector performance. Responsibilities for policy, regulation and service delivery have not always been clearly separated, and coordination between state institutions, local governments and community management structures remains uneven. In many communities, local management arrangements lack the technical capacity and financial resources required to sustain water and sanitation infrastructure. Stakeholder consultations further highlighted weak enforcement of regulatory

roles, limited accountability mechanisms, and fragmented coordination across MDAs as key drivers of system underperformance.

Planning and monitoring systems also require strengthening. The sector currently lacks comprehensive systems for tracking infrastructure functionality, financing flows, and service outcomes. In addition, WASH investments are not always fully reflected in public finance processes at state and local government levels, making it difficult to sustain consistent financing for the sector. Gaps in data availability and reporting, as noted during the co-creation workshop, further constrain evidence-based planning and limit the ability of the sector to attract and manage financing effectively.

Recognising these challenges, the Cross River State WASH Policy (2025) calls for the development of a more structured and sustainable financing framework for the sector. The policy emphasises the need to strengthen sector governance, improve cost recovery mechanisms, expand domestic financing, and mobilise complementary support from development partners and other sources of investment.

In response to these commitments, the Cross River State WASH Financing Strategy has been developed to provide a clear pathway for strengthening sector financing. The strategy focuses on rural communities and small towns, where service gaps remain most pronounced. By assessing current financing patterns, estimating investment needs, and identifying practical financing pathways, the strategy aims to support the long-term sustainability of water, sanitation, and hygiene services across Cross River State. The strategy is also informed by stakeholder inputs emphasising the need for financing approaches that are realistic, implementable, and aligned with institutional capacity constraints within the state.]

1.2 Objectives of the Financing Strategy

The Cross River State WASH Financing Strategy (2026–2031) establishes a structured and sustainable financing framework to support the long-term delivery of Water, Sanitation, and Hygiene (WASH) services across rural communities and small towns. Building on the commitments set out in the Cross River State WASH Policy (2025) and related sector legislation, the strategy seeks to strengthen how the WASH sector is financed, managed, and sustained over the strategy period.

Recognising that sustainable services require financing systems that support the full lifecycle of infrastructure, the strategy aims to align sector investments with reliable financing mechanisms, improved financial governance, and stronger institutional accountability.

The strategic objectives of the WASH Financing Strategy are to:

1. **Establish a coordinated sector financing architecture for rural and small-town WASH services over the 2026–2031 period**, aligning public financing, community contributions, development partner support, and other complementary financing sources with clearly defined institutional roles.

2. **Institutionalise lifecycle financing for WASH infrastructure**, ensuring that sector financing mechanisms adequately support capital investment, routine operations and maintenance, capital maintenance, and essential sector support functions required to sustain service delivery.

3. **Strengthen financial governance and accountability in the WASH sector**, including improved alignment between sector planning, public finance processes, budget execution, and expenditure tracking across state and local government institutions.

4. **Enable sustainable expansion of water and sanitation services in underserved rural communities and small towns** by aligning financing mechanisms with the service delivery models and standards established under the Cross River State WASH Policy.

5. **Integrate sustainability, climate resilience, and equity considerations into WASH financing decisions**, ensuring that investments made during the strategy period remain functional, inclusive, and financially viable over the long term. This includes prioritising underserved populations, improving affordability for vulnerable households, and ensuring that financing mechanisms do not exclude low-income or geographically marginalised communities

Together, these objectives position financing reform as a central enabler of sustainable WASH service delivery in Cross River State, supporting the broader sector goal of expanding safe, reliable, and equitable water and sanitation services across the state. The following section clarifies the geographic and sector scope of the strategy, including the service areas and population groups covered during the 2026–2031 implementation period.

1.3 Geographic and Sector Scope

This WASH Financing Strategy focuses on strengthening the financing of water, sanitation and hygiene services in rural communities and small towns across Cross River State over the period 2026–2031. The scope of the strategy is guided by the institutional mandates and service delivery models established under the Cross River State WASH Policy (2025) and the Water Supply and Sanitation Law (2024).

1.3.1 Geographic Scope

The strategy primarily addresses WASH services in **rural settlements and small towns**, where service gaps remain most significant and where public financing and institutional coordination play a critical role in sustaining services.

In line with state policy, settlement categories are defined using population thresholds that determine institutional responsibilities for service delivery:

- **Rural communities**, typically comprising settlements with smaller populations and dispersed settlement patterns, where services are facilitated through community-based management arrangements supported by the Rural Water Supply and Sanitation Agency (RUWATSSA).

- **Small towns**, representing rapidly growing settlements that require more structured and professionally managed service delivery systems, overseen by the Small Towns Water and Sanitation Agency (STOWA).

Urban and peri-urban systems that fall under the mandate of the Cross River State Water Board Limited are outside the primary focus of this strategy.

1.3.2 Sector Scope

Within the defined geographic focus, the strategy addresses key components of the WASH sector that directly affect household service delivery. These include:

- **Household water supply**, including community water points and small-town water systems that provide access to safe drinking water for households.
- **Household sanitation**, with emphasis on improving access to safe and hygienic sanitation facilities and supporting the elimination of open defecation.
- **Hygiene promotion and behaviour change**, particularly interventions that support safe water handling, handwashing with soap, menstrual hygiene management, and other practices essential for protecting public health.
- **Institutional WASH improvements** in schools, health facilities, markets, motor parks, and other public places, with particular emphasis on sanitation and hygiene facilities required to support public health, dignity, safe learning environments, and infection prevention.

These components reflect the core service areas prioritised within the Cross River WASH Policy, particularly the expansion of domestic water supply, sanitation, hygiene promotion, and institutional sanitation service delivery across rural and small-town communities.

1.3.3 Exclusions from the Financing Scope

While the Cross River WASH Policy covers a broader set of interventions across the sector, the financing analysis presented in this strategy focuses specifically on rural and small-town WASH service delivery systems.

Accordingly, the following areas are not treated as primary financing domains within this strategy:

- **Urban utility systems**, which fall under the operational and financial mandate of the Cross River State Water Board Limited.
- **Large-scale urban sewerage and Citywide Inclusive Sanitation (CWIS) systems**, which require separate technical, institutional, and financing frameworks.
- **Solid waste management and wider environmental sanitation services**, except where behaviour change initiatives overlap with sanitation and hygiene promotion.

By clearly defining the geographic and sector scope, the strategy ensures that the financing analysis remains focused on the areas where financing reforms can most effectively strengthen sustainable WASH service delivery in Cross River State. While urban areas are excluded from this strategy, stakeholders during the co-creation and validation process

emphasised the need for a dedicated urban WASH financing assessment focused on utility reform, urban sanitation systems, and Citywide Inclusive Sanitation approaches.

1.4 Policy and Strategic Alignment Framework

The Cross River State WASH Financing Strategy operationalises the policy and legal commitments guiding the development of the water, sanitation, and hygiene sector at international, national, and state levels. Rather than introducing new sector priorities, the strategy translates existing policy goals into a practical framework for mobilising and managing financing to support sustainable WASH service delivery in rural communities and small towns.

Alignment with International Commitments

The strategy contributes to Nigeria's commitments under the United Nations Sustainable Development Goals (SDGs), particularly SDG 6, which aims to ensure universal and equitable access to safe drinking water, sanitation, and hygiene services by 2030. These commitments recognise WASH as a fundamental human right and a key foundation for public health, economic development, and social wellbeing.

Achieving these goals requires sustained investment in infrastructure, service delivery systems, and institutional capacity. The financing strategy therefore strengthens the mechanisms through which resources are mobilised, allocated and managed within the WASH sector.

Alignment with National WASH Priorities

At the national level, the strategy aligns with Nigeria's **Water, Sanitation, and Hygiene Sector Finance Advocacy Strategy and Plan**, developed by the Federal Ministry of Water Resources to strengthen domestic financing and improve the effectiveness of WASH investments across the country. The national strategy emphasises increased public and private investment in WASH, stronger financial governance, and equitable allocation of resources to populations most in need.

It also promotes improved coordination across federal, state, and local government institutions, stronger financial data systems, and greater accountability in the management of WASH resources.

The strategy further aligns with national initiatives including the Partnership for Expanded Water Supply, Sanitation and Hygiene (PEWASH) and the National Open Defecation Free (ODF) Roadmap, which guide efforts to expand WASH services and accelerate sanitation progress across states.

Alignment with State Policy and Legal Framework

At the state level, the strategy builds on the Cross River State WASH Policy (2025), which prioritises the expansion of safely managed and basic water and sanitation services, the elimination of open defecation, and the promotion of inclusive and climate-resilient WASH

systems. The policy emphasises equitable access, consumer protection, and stronger institutional accountability.

The Cross River State Water Supply and Sanitation Law (2024) provide the legal framework for implementing these commitments. It establishes institutional responsibilities for sector governance, service delivery, and regulation, and provides the statutory basis for service standards, tariff regulation, and sector oversight.

Under this framework, urban services are delivered through the Cross River State Water Board Limited, while the Small Towns Water and Sanitation Agency manage services in small towns. Rural services are facilitated by the Rural Water Supply and Sanitation Agency in collaboration with local governments and community management structures. Regulation is provided by the Cross River State WASH Regulatory Commission, while the Ministry of Water Resources and Sanitation leads sector policy, planning and coordination.

Alignment with Sector Planning Instruments

The strategy is informed by the Cross River State Rural WASH Investment Plan, which provides the planning framework for expanding water and sanitation services across the state. The investment plan identifies priority service gaps and outlines a phased pathway for expanding services across local government areas.

The financing strategy complements this framework by focusing on the systems required to sustain investments over time. It promotes resource mobilisation from multiple sources and improved financial management across state and local institutions.

Local governments coordinate WASH investments and support community-level service delivery, while Water, Sanitation, and Hygiene Committees contribute to the operation and maintenance of rural and small-town systems.

Through alignment with these international, national, and state frameworks, the Cross River State WASH Financing Strategy provides a coherent foundation for strengthening sector financing and supporting the long-term sustainability of WASH services across the state.

1.5 Methodological Approach and Analytical Framework

The WASH Financing Strategy was developed through a structured analytical process designed to assess current financing patterns, estimate future investment requirements, and identify sustainable financing pathways for the sector. The analysis followed three interrelated workstreams which together provide the evidence base for the strategy.

Analytical Workstreams

The methodological framework is organised around three core analytical components.

1. **Understanding Current Financing Patterns:** The first workstream assessed how the WASH sector is currently financed. This involved reviewing historical public expenditure, development partner contributions, and existing funding mechanisms supporting WASH investments in the state. The analysis examined trends in budget

allocations, expenditure performance, and the distribution of financing across subsectors and institutions. This assessment establishes the baseline financing landscape and provides insight into how resources are currently mobilised and utilised within the sector.

2. **Estimating Sector Investment Requirements:** The second workstream focused on estimating the scale of investment required to expand and sustain WASH services. This analysis applied a **Life-Cycle Costing (LCC)** approach to capture the full costs associated with service delivery over time, including capital expenditure, operations and maintenance, capital maintenance, and sector support costs. Investment requirements were estimated based on projected service expansion targets, population growth trends, and defined service level benchmarks for rural communities and small towns. Detailed service delivery models used in the costing analysis draw on the **Yala Local Government Area investment strategy**, commissioned under the **Self-Help Africa programme**, which provides a practical planning and costing framework for rural and small-town WASH service delivery. The Yala strategy served as the principal benchmark for identifying service delivery models, cost assumptions, and lifecycle financing requirements relevant to the Cross River context.
3. **Identifying Sustainable Financing Pathways:** The third workstream examined how the identified investment requirements can realistically be financed over time. This involved analysing the potential contribution of different financing sources, including public budgets, transfers from national programmes, development partner support, and other financing instruments where appropriate. The analysis also explored institutional and financial reforms required to strengthen sector financing systems and improve the sustainability of WASH service delivery.

Analytical Sequencing

The strategy follows a clear analytical sequence designed to progressively move from diagnosis to financing solutions:

1. Assessment of current WASH financing flows to establish the sector financing baseline.
2. Service gap analysis to identify the scale of unserved and underserved populations.
3. Estimation of investment requirements using a Life-Cycle Costing framework.
4. Calculation of the financing gap between current financing levels and required investments.
5. Development of a financing and reform roadmap outlining actions required to close the gap over time.

This sequence ensures that financing recommendations are grounded in realistic assessments of service needs, institutional capacity, and fiscal constraints.

Data Sources, Triangulation and Stakeholder Engagement

The analysis draws on multiple data sources to strengthen the reliability of the strategy. These include state budget documents, Medium-Term Expenditure Framework (MTEF) projections, and annual appropriation laws, which provide insight into historical allocations, expenditure trends, and forward fiscal planning for the WASH sector. Sector performance and service coverage data were drawn from the National WASH Management Information System (WASHMIS) and WASHNORM reports, which provide nationally standardised data on water supply, sanitation and hygiene service levels across states and local governments. Additional evidence was obtained from state sector policies, strategies, and planning documents, including the Cross River WASH Policy, investment plans and related sector frameworks that define service delivery targets, institutional mandates, and implementation approaches. These sources were complemented by administrative data from WASH sector institutions and development partner programme documentation, which provided further information on infrastructure investments, programme implementation, and financing flows within the sector.

Data were triangulated across these sources to validate financing estimates, investment requirements, and service coverage assumptions. Where gaps or inconsistencies were identified, assumptions were cross-checked against sector benchmarks and validated through stakeholder consultations.

As part of the strategy development process, a state-level co-creation workshop was conducted with key sector stakeholders, including government institutions, development partners, civil society organisations, and sector practitioners. The workshop provided an opportunity to review preliminary findings, validate key assumptions, and incorporate stakeholder perspectives into the development of the financing strategy.

This participatory process helped ensure that the strategy reflects sector realities and strengthens ownership of the proposed financing and reform pathways.

2. Sector Context and Service Delivery Landscape

2.1 Demographic and Settlement Patterns in Cross River State

State Population Profile

Cross River State has a rapidly growing population estimated at approximately 4.4 to 4.57 million people in 2022, with projections indicating that the population could exceed 5.7 million by 2030, assuming an annual growth rate of about 2.89 percent. The state comprises 18 Local Government Areas (LGAs) with an average population density of approximately 219 persons per square kilometre. All population figures are estimates based on the 2006 census and projected growth rates. The last ward-level census was conducted in 1991, limiting the precision of sub-LGA planning. This is a recognised limitation of the strategy.

Population distribution across the state is uneven, with higher densities concentrated in the Calabar metropolitan area, while large parts of the central and northern LGAs remain sparsely populated. These demographic dynamics influence both the scale of WASH service demand and the spatial distribution of infrastructure investments required to achieve universal access.

Settlement Classification for WASH Planning

To guide infrastructure planning and service delivery, the Cross River State WASH Policy establishes settlement categories based on population thresholds. These classifications guide technology choices, service delivery models, and institutional mandates across the sector.

The settlement categories are defined as follows:

Rural settlements: communities with populations below 5,000 residents

Small towns: settlements with populations between 5,000 and 20,000 residents

Urban areas: settlements with populations above 20,000 residents

Under this framework, rural settlements are typically served through community-managed systems supported by the Rural Water Supply and Sanitation Agency (RUWATSSA), while small towns require more structured systems, including professionally managed, metered schemes. Urban areas rely primarily on networked water supply systems managed by the Cross River State Water Board Ltd.

These distinctions are important for financing because each settlement category requires different infrastructure technologies, operational arrangements, and cost structures.

Rural Settlement Patterns

Understanding rural settlement patterns is particularly important for planning WASH investments because a large share of the state's population resides in dispersed rural communities.

Evidence from the Cross River State Rural Water Supply and Sanitation Investment Plan provides important insights into these settlement dynamics. The plan draws on a baseline survey of approximately 1,600 rural communities visited across the state. The survey analysed settlement structures and identified three main settlement types:

Dispersed settlements: approximately 36.6 percent of surveyed communities

Linear settlements: approximately 17.9 percent, often located along roads or rivers.

Nucleated settlements: approximately 45.5 percent, characterised by clustered housing patterns.

These settlement typologies significantly influence infrastructure design, service delivery logistics, and the cost of WASH investments across LGAs. The findings from the survey provide an empirical basis for understanding rural infrastructure needs and inform several of the costing assumptions used in the investment modelling presented later in this strategy.

Geographic and Ecological Factors

Cross River State's settlement patterns are linked to its diverse geography, which ranges from coastal rainforest and wetland ecosystems in the south to upland savannah zones in the central and northern parts of the state.

Communities in the southern coastal areas experience high rainfall and low-lying terrain, making them vulnerable to seasonal flooding that can contaminate shallow water sources and damage sanitation facilities. Infrastructure in these areas must therefore be designed to withstand high water tables and flood risks.

In contrast, communities in the central and northern upland areas experience longer dry seasons and more pronounced seasonal water scarcity. Surface water sources may become unreliable during dry periods, increasing reliance on deeper groundwater abstraction.

These environmental conditions influence both the reliability of water sources and the engineering requirements of WASH infrastructure, which in turn affect investment costs and system design.

Implications for WASH Service Delivery and Financing

The demographic, geographic, and settlement characteristics of Cross River State have important implications for WASH service delivery models and financing requirements.

First, settlement density strongly influences technology choices. Higher-density urban areas are more suitable for networked water supply systems and Citywide Inclusive Sanitation approaches, while rural and small-town settlements require decentralised service models such as boreholes, small, piped schemes, and on-site sanitation systems.

Second, environmental conditions influence infrastructure design requirements. Flood-prone southern settlements require elevated borehole platforms and flood-resilient sanitation facilities, while water-scarce northern areas often require deeper boreholes supported by hydrogeological investigations and complementary water sources such as rainwater harvesting.

Third, energy systems affect operational costs. To improve long-term financial sustainability, the state promotes the use of solar and hybrid energy systems for rural and small-town water schemes to reduce operational expenditure.

Fourth, population dispersion affects economies of scale. Lower population densities in rural areas increase per-capita investment costs because infrastructure must serve smaller and more widely distributed populations.

Finally, terrain and remoteness increase logistical costs for infrastructure development and maintenance in some LGAs, particularly in remote or hard-to-reach communities.

Taken together, these demographic and settlement dynamics play an important role in shaping the technology choices, cost structures, and investment requirements considered in this WASH Financing Strategy. They also provide important context for the service gap analysis and investment modelling presented in subsequent sections of this report.

2.2 Institutional Framework for Rural and Small-Town WASH

The Cross River State WASH Policy establishes a decentralized governance framework based on the **separation of sector functions** across enabling, regulation, service delivery, and community-level management. This structure aims to improve accountability, reduce conflicts of interest, and strengthen professional management of WASH services.

Within the rural and small-town sub-sectors, service delivery responsibilities are distributed across institutions operating at state, local government, and community levels. Together, these actors support infrastructure development, system operation, regulation, and sector monitoring.

2.2.1 Key Service Delivery Stakeholders

Table below summarises the primary institutional actors responsible for rural and small-town WASH service delivery.

Table 1 Institutional Actors responsibilities in rural and small-town WASH service delivery.

Institution	Sector Role	Key Responsibilities
Ministry of Water Resources and Sanitation (MoWRS)	Sector Enabler and Policy Lead	Leads sector policy, strategic planning, and coordination. Oversees sector monitoring and evaluation and convenes coordination platforms such as the State Task Group on WASH (STG-WASH).
Rural Water Supply and Sanitation Agency (RUWATSSA)	Rural Service Authority	Facilitates WASH service delivery in rural settlements (below 5,000 population). Coordinates infrastructure development, provides technical support to communities, and supervises system functionality and maintenance through Local Area Mechanics.
Small Towns Water, Sanitation and Hygiene Agency (STOWA)	Planned Small-Town Service Authority	The WASH Policy provides for the creation of a **Small Towns Water and Sanitation Agency** to support WASH delivery in settlements between 5,000 and 20,000 residents. Once established, STOWA will promote professionally managed

		systems, facilitate the formation of Water Consumer Associations, and supervise small-town operators using a demand-responsive service model.
Local Government Areas (LGAs)	Local Coordination and Facilitation	Through LGA WASH Departments, local governments support local planning and budgeting, maintain WASH asset registers, enforce sanitation by-laws, and coordinate hygiene promotion activities.
WASHCOMs and WCAs	Community-Level Service Management	Community-based structures responsible for day-to-day management of local systems. WASHCOMs operate rural schemes, while WCAs support management of small-town systems, including tariff collection and preventive maintenance.
Civil Society Organisations (CSOs)	Social Accountability and Community Mobilisation	Support advocacy, hygiene promotion, and community mobilisation, and help strengthen inclusive participation in WASH programmes.
Development Partners	Financial and Technical Support	Provide financial assistance, technical expertise, and institutional strengthening to support sector reforms and infrastructure expansion.

2.2.2 Functional Separation in the Sector

The WASH Policy clarifies institutional responsibilities by separating key sector functions. This separation helps ensure that planning, regulation, financing, and service delivery roles are performed by distinct actors.

Table 2 Sector Functions and Responsible Institutions

Sector Function	Responsible Actors	Key Responsibilities
Policy and Strategic Planning	MoWRS, LGAs	Development of sector policies, strategic plans, and Medium-Term Expenditure Framework (MTEF) planning. LGAs develop local WASH plans aligned with state priorities.
Financing	State Government, LGAs, Communities, Development Partners	Sector financing follows the **3Ts + R framework**: taxes (public budgets), tariffs (user contributions), transfers (donor funding), and repayable finance where applicable.

Regulation	Cross River State WASH Regulatory Commission	Sets and approves tariffs, licenses service providers, enforces service standards, and protects consumers.
Service Delivery	RUWATSSA, LGAs, Community Structures, Future STOWA	Implementation of infrastructure projects, sanitation promotion, and management of water supply systems.
Monitoring and Sector Data Management	MoWRS, Regulatory Commission, LGAs, State Bureau of Statistics	Sector monitoring through the State WASH Management Information System, regulatory inspections, sector performance reporting, data harmonisation, and statistical support for planning and decision-making.

2.2.3 Community-Level Service Management

Community institutions play an important role in sustaining WASH services, particularly in rural areas. Water, Sanitation and Hygiene Committees (WASHCOMs) manage rural systems, while Water Consumer Associations (WCAs) support management of small-town schemes.

Their responsibilities typically include:

- collecting user tariffs to support operations and maintenance
- routine maintenance and facility hygiene
- reporting system functionality to local authorities
- supporting community participation in planning processes

Strengthening these structures remains important for sustaining WASH services at the local level.

Table 3 Institutional Performance Constraints Affecting WASH Financing and Service Delivery

Dimension	Observed Gap	Implication for Financing	Evidence from Stakeholders
Capacity	Limited technical and managerial capacity at LGA and community levels	Weak implementation, underutilisation of funds, poor maintenance	Low utilisation of available funds; weak M&E capacity
Coordination	Fragmented coordination across MDAs and weak STG-WASH effectiveness	Duplication, inefficiencies, poor planning alignment	Lack of synergy between institutions highlighted

Accountability	Weak enforcement of roles and limited expenditure tracking	Leakages, poor service outcomes, reduced trust	Concerns on tariff leakages and weak oversight
Regulation	Limited enforcement of service standards and tariff regulation	Poor service quality, weak cost recovery	Weak regulatory enforcement noted
Data Systems	Incomplete and outdated data systems (WASHNORM reliance, weak reporting)	Poor planning, weak investor confidence	Data gaps repeatedly raised in workshop

The institutional framework clarifies responsibilities for planning, financing, and managing WASH investments across the sector. It also highlights the decentralised nature of service delivery, where state institutions, local governments, and communities all play complementary roles.

This institutional arrangement provides the governance foundation for the financing mechanisms and reform measures presented in subsequent sections of this strategy.However, as highlighted above, institutional performance constraints, particularly in coordination, capacity, and accountability, limit the effectiveness of existing financing flows and contribute to underutilisation of available resources. Addressing these constraints is therefore central to improving both financing efficiency and service sustainability.

2.3 Current Water Supply Service Delivery Models

Water supply services in Cross River State are delivered through a combination of community-managed rural systems and emerging professionally managed small-town systems. The service delivery approach varies according to settlement size, infrastructure scale, and institutional capacity. These differences have important implications for system sustainability, operational management, and long-term financing requirements.

Understanding the existing service delivery models is therefore important for determining investment needs, operational costs, and maintenance requirements within the WASH sector.

2.3.1 Rural Water Supply Service Models

In rural settlements with populations below 5,000 residents, water supply services are facilitated by the Rural Water Supply and Sanitation Agency (RUWATSSA) and managed at the community level.

In practice, three main management arrangements currently exist:

Table 4 Rural Water supply delivery models

Rural Management Model	Description	Sustainability Implications
Community-Based Management (WASHCOMs/WPCs)	The intended policy model where community committees operate and maintain local water facilities.	Promotes ownership but often weakened by limited technical and financial capacity.
Caretaker Model	Individual caretakers manage facilities and oversee day-to-day operation.	Provides consistent presence but often lacks formal governance and financial oversight.
Informal / No Management	Water points operate without formal management structures.	Systems often remain unrepaired when breakdowns occur, leading to long-term functionality challenges.

Evidence from the **Yala LGA investment strategy assessment** suggests that active management structures are limited in many communities, indicating significant challenges in sustaining community-managed water systems. Stakeholder feedback further confirms that weak management arrangements, irregular tariff collection, and limited technical support systems are key drivers of poor functionality across rural water schemes.

Typical Rural Water Supply Technologies

The rural water infrastructure base is dominated by **groundwater-based systems**, including:

- handpump-equipped boreholes
- motorised boreholes
- improved hand-dug wells

State policy increasingly promotes the adoption of solar or hybrid-powered pumping systems for new or rehabilitated schemes to reduce operational costs associated with diesel or grid electricity.

Maintenance of rural systems is intended to rely on a network of Local Area Mechanics (LAMs) who provide preventive maintenance and emergency repair services to communities.

2.3.2 Small-Town Water Supply Service Models

Small towns in Cross River State, defined as settlements with populations between 5,000 and 20,000 residents, require more structured service delivery models due to higher demand and greater infrastructure complexity.

The WASH Policy therefore provides for the establishment of a Small Towns Water and Sanitation Agency (STOWA) to support water service delivery in these settlements. At the

time of preparing this strategy, the agency is yet to be fully established, but the policy framework outlines its expected responsibilities.

Once operational, STOWA will support the development and management of professionally operated water supply systems, including:

- Supervision of local system operators
- Facilitation of Water Consumer Associations (WCAs)
- Regulation of operational standards through service agreements
- Coordination of operations and maintenance for small-town schemes

The policy also encourages Public-Private Partnerships (PPPs) in small towns, particularly for system operation, metering services, and maintenance contracts.

Typical Small-Town Water Supply Technologies

Small-town water supply systems generally involve motorised boreholes connected to limited distribution networks, often supported by elevated storage and public standposts. In some cases, systems may include household connections where infrastructure and demand allow.

These systems require more structured operational management, including routine monitoring, tariff administration, and preventive maintenance.

Cost and Maintenance Implications by Settlement Type

The different service delivery models adopted across rural and small-town settlements result in distinct cost structures and maintenance requirements.

Rural water supply systems generally involve lower initial capital investment, particularly where handpump boreholes or simple motorised systems are used. However, sustainability challenges often arise due to weak management structures, irregular tariff collection, and limited provision for long-term maintenance or equipment replacement.

Small-town systems typically require higher capital investment, as they involve distribution pipelines, storage infrastructure, and more complex pumping systems. At the same time, these systems can benefit from greater economies of scale and more structured tariff collection mechanisms, allowing operational costs to be partially recovered through user payments.

However, both rural and small-town systems require periodic capital maintenance investments, including replacement of major mechanical and electrical components. Ensuring that financing mechanisms exist to support these lifecycle costs remains a key challenge within the sector.

For context, urban water systems serving settlements above 20,000 residents are managed by the Cross River State Water Board Ltd. (CRSWBL) and operate on a more complex utility model. These systems require larger-scale infrastructure investments and more advanced operational management.

Implications for the Financing Strategy

The diversity of service delivery models across rural and small-town settlements has important implications for the WASH financing strategy. Different technologies, management arrangements, and infrastructure scales require distinct investment levels, operational financing mechanisms, and maintenance planning approaches.

Understanding these differences is therefore essential for developing realistic life-cycle costing models and financing pathways capable of sustaining water services across the state.

2.4 Sanitation and Hygiene Promotion Approaches

Sanitation improvement in Cross River State is driven primarily through behaviour change and community mobilisation approaches, supported by targeted financing mechanisms and supply-side market development. The state adopts a structured sanitation campaign architecture aligned with national sanitation policies and the Clean Nigeria: Use the Toilet Campaign, to eliminate open defecation and promote safe sanitation and hygiene practices across rural and small-town communities.

2.4.1 CLTS and Sanitation Campaign Architecture

Cross River State has adopted Community-Led Total Sanitation (CLTS) as the central strategy for eliminating open defecation in rural communities and small towns. The approach localises the national Clean Nigeria Campaign and aligns with federal sanitation policy directives aimed at accelerating progress toward Open Defecation Free (ODF) status.

The CLTS implementation process follows a structured sequence of activities including:

- Pre-triggering, involving community engagement and preparation.
- Triggering, where communities collectively analyse sanitation practices and commit to eliminating open defecation.
- Post-triggering support, including technical guidance and monitoring of household sanitation construction.
- ODF verification and validation, conducted through a two-stage process involving community self-assessment and independent verification.
- Post-ODF sustainability monitoring, typically conducted over a 12–24-month period to prevent slippage.

Implementation responsibilities are shared across sector institutions. RUWATSSA leads CLTS facilitation in rural areas, while small-town sanitation initiatives are expected to be supported by the Small Towns Water and Sanitation Agency (STOWA) once operational. Local Government Areas (LGAs) play an important role in community mobilisation, sanitation enforcement, and verification processes.

To reinforce behavioural change, LGAs are encouraged to enact local sanitation by-laws requiring households to construct basic sanitation facilities within a defined period following CLTS triggering. At the state level, policy discussions have also considered stronger legal frameworks to discourage open defecation and promote improved sanitation practices.

2.4.2 Household Sanitation Pathways

The Cross River WASH Policy promotes household-led sanitation improvements rather than blanket government subsidies. The objective is to stimulate household investment while providing targeted support to vulnerable populations.

Households are encouraged to upgrade from open defecation practices to standard-compliant sanitation facilities through several pathways:

- **Output-Based Aid (OBA**): targeted financial incentives provided after households construct and maintain functional sanitation facilities that meet defined standards.
- **Public Service Obligation (PSO) mechanisms**: targeted support such as sanitation vouchers or reconstruction assistance for vulnerable households and persons with disabilities
- **Microfinance linkages**: partnerships with microfinance institutions and cooperative groups to provide sanitation loans for households.

Sanitation facilities promoted under the programme must meet minimum technical standards, including appropriate siting distances from water sources, safe containment of waste, durable construction materials, and design features that support accessibility and menstrual health management where applicable.

2.4.3 Sanitation Markets and Supply-Side Development

To ensure that households triggered through CLTS have access to affordable sanitation products and services, the state promotes **local sanitation market development**.

Sector institutions such as RUWATSSA and local governments support this process by:

- identifying and training **local sanitation entrepreneurs and artisans**, including masons capable of constructing improved sanitation facilities
- promoting standardised sanitation facility designs suited to local environmental conditions.
- facilitating supply chains for sanitation materials such as slabs, rings, pans, and ventilation pipes

Special attention is given to ensuring that sanitation technologies are adapted to local geographic conditions, including flood-prone coastal areas and locations with high water tables or rocky ground conditions.

To stimulate sanitation markets in underserved areas, the state may provide targeted catalytic support, such as small grants or performance-based incentives to sanitation businesses that operate in difficult-to-reach communities.

2.4.4 Handwashing and Behaviour Change Approaches

Sanitation improvement efforts in Cross River State are linked with hygiene promotion through Social and Behaviour Change Communication (SBCC) programmes. These initiatives focus on promoting key hygiene practices that complement improved sanitation.

The state's hygiene promotion strategy is guided by a Minimum Hygiene Service Package (MHSP) that promotes critical behaviours such as:

- Handwashing with soap at key moments
- Safe water storage and handling
- Safe disposal of child faeces
- Menstrual Health and Hygiene Management (MHHM)

Recognising that behaviour change requires both knowledge and infrastructure, sanitation programmes encourage households constructing latrines to also install simple handwashing facilities using locally available materials. Low-cost solutions such as tippy-tap handwashing devices are promoted in rural communities where formal handwashing stations are not yet widely available.

Behaviour change programmes are implemented through a network of community health workers, traditional leaders, religious leaders, women's groups, and youth champions, who function as trusted messengers for sanitation and hygiene promotion. Cultural events and community gatherings are also used as mobilisation opportunities to reinforce sanitation and hygiene commitments.

Through this integrated approach combining community mobilisation, household investment pathways, supply-chain strengthening, and behaviour change communication, Cross River State seeks to sustain long-term improvements in sanitation and hygiene outcomes.

3. Current WASH Financing Landscape

Achieving universal access to safe water, sanitation, and hygiene services in Cross River State will require sustained and well-coordinated financing across multiple levels of government, development partners, and communities. Understanding how the sector is currently financed is therefore an essential step in identifying the investments required to expand services and sustain existing infrastructure.

WASH financing in the state is currently supported through a combination of public sector allocations, national programmes, development partner assistance, and household and community contributions. These financing streams collectively support infrastructure development, sanitation promotion programmes, and the operation and maintenance of water supply systems. However, as in many WASH sectors, financing patterns often prioritise capital investment, while financing for long-term system sustainability remains limited.

This section examines the current WASH financing landscape in Cross River State. It first provides an overview of the sector’s financing architecture and the main sources of funding supporting WASH services. It then analyses historical financing trends, expenditure patterns across subsectors, and the extent to which current financing arrangements support sustainable system management.

The analysis presented in this chapter provides the foundation for identifying financing gaps and informing the financing pathways and reform priorities outlined in subsequent sections of this strategy.

Figure 1 Cross River State WASH Financing Architecture (3Ts + R)

3.1 Overview of WASH Financing in Cross River State

The Water, Sanitation, and Hygiene (WASH) sector in Cross River State is financed through multiple funding streams drawn from public sector budgets, national intervention programmes, development partner support, and contributions from households and community management systems. These financing sources collectively support infrastructure development, sanitation promotion programmes, and the operation and maintenance of water supply systems across rural settlements, small towns, and urban areas.

To guide the mobilisation and management of these diverse financing sources, the Cross River State WASH Policy (2025) adopts a blended "3Ts + R" financing framework. This framework builds on the traditional global WASH financing model of Taxes, Transfers, and Tariffs, while introducing Repayable Finance as an additional pillar intended to expand the range of financing options available to the sector over time.

Within this framework, sector financing is structured around the following components:

- **Tariffs (User Payments):** Tariffs represent user contributions collected at the community or service-provider level to finance the routine operation and maintenance of water supply systems. These payments are typically collected by community management structures such as Water, Sanitation and Hygiene Committees (WASHCOMs), Water Consumer Associations (WCAs), or licensed operators in small-town systems. Tariffs are intended to support day-to-day operational costs, minor repairs, and preventive maintenance, while tariff structures

are expected to incorporate affordability safeguards such as lifeline provisions for low-income households.

- **Taxes (Public Sector Budgets)**: Public financing from State Government and Local Government Area (LGA) budgets represents the primary domestic source of WASH financing. These public resources are generally used to finance capital investments in infrastructure development, rehabilitation of water supply systems, institutional WASH facilities in schools and health centres, and targeted pro-poor interventions. Budgetary allocations are channelled through relevant WASH sector institutions, including the Ministry of Water Resources and Sanitation and sector implementation agencies such as the Rural Water Supply and Sanitation Agency (RUWATSSA).
- **Transfers (External Support)**: Transfers consist of financial and technical support provided by development partners, international donors, and national intervention programmes. In Cross River State, these transfers often finance infrastructure development, sanitation promotion programmes, and institutional strengthening initiatives. National programmes such as SURWASH, PEWASH, and the Clean Nigeria: Use the Toilet Campaign also represent important channels through which federal and partner resources support WASH service expansion within the state.
- **Repayable Finance (Market-Based Capital)**: The WASH Policy introduces repayable finance as a longer-term mechanism for mobilising additional resources into the sector. Repayable finance may include concessional loans, blended finance arrangements, or Public–Private Partnerships (PPPs) designed to attract private investment for commercially viable service models, particularly in small-town water supply systems or utility-scale infrastructure. While this financing pillar is still emerging within the state, it reflects a strategic effort to gradually diversify sector financing sources and reduce reliance on public budgets and donor transfers.

Despite the presence of multiple financing streams, the sector continues to face a persistent structural challenge. Historically, WASH financing has been heavily oriented toward capital investment in new infrastructure, while financing for operations, preventive maintenance, and long-term asset rehabilitation remains limited. As a result, infrastructure construction has often outpaced the resources available to sustain systems over time, leading to declining functionality of water facilities and increasing rehabilitation needs. However, the effectiveness of these financing streams is influenced by broader institutional and political dynamics that affect how resources are prioritised, released, and utilised in practice.

3.2 Sources of Sector Financing

The delivery of Water, Sanitation, and Hygiene (WASH) services in Cross River State is supported through multiple financing sources spanning government budgets, national intervention programmes, development partner investments, and contributions from households and communities. While the state's WASH policy establishes a blended financing architecture based on the **3Ts + R framework**, the current financing landscape remains

characterised by a strong reliance on external partners and household spending to support service delivery.

Figure 2 Primary Sources of WASH Financing

The main sources of sector financing are outlined below.

- **State Government Financing:** State government financing is channelled through budgetary allocations to WASH-related Ministries, Departments, and Agencies (MDAs), including the **Ministry of Water Resources and Sanitation (MoWRS)**, the **Rural Water Supply and Sanitation Agency (RUWATSSA)**, and the **Cross River State Water Board Limited (CRSWBL)**. State funding is primarily directed toward capital expenditure for infrastructure development, including the construction of new water supply systems, rehabilitation of existing infrastructure, and expansion of urban water networks. As a result, public financing has historically focused on infrastructure development, while dedicated funding for routine operations, preventive maintenance, and long-term asset replacement remains limited.
- **Local Government Financing:** Local Government Areas (LGAs) play an important role in supporting grassroots WASH service delivery, particularly in rural areas and small towns. Through LGA WASH Departments, local governments are expected to support rural water maintenance, sanitation promotion activities, and the management of sanitation facilities in public spaces such as markets and motor parks. However, financing for WASH at the LGA level remains highly variable and often limited. In many cases, WASH activities are not reflected as clearly ring-fenced budget lines in LGA budgets, and spending on sanitation promotion and minor infrastructure works is frequently constrained by competing local government priorities.
- **Federal Government Programmes:** Federal government initiatives provide additional support to WASH investments in the state by establishing national policy frameworks and mobilising external resources for infrastructure development and sector reforms. These programmes often combine federal coordination with development partner financing and technical assistance. Key national initiatives supporting WASH investments include the Sustainable Urban and Rural Water Supply, Sanitation and Hygiene (SURWASH) programme, the Partnership for Expanded Water Supply,

Sanitation and Hygiene (PEWASH) programme, and the Clean Nigeria: Use the Toilet Campaign, which focuses on accelerating progress toward the elimination of open defecation.

- **Development Partner Financing:** Development partner support constitutes a significant component of WASH financing in Cross River State. Multilateral and bilateral partners, including organisations such as the World Bank, African Development Bank (AfDB), UNICEF, the European Union, and the UK's FCDO, provide financial and technical support for water supply infrastructure, sanitation promotion programmes, and institutional strengthening initiatives. Development partner investments are typically project-based and may focus on specific geographic areas or subsectors within the state. While this support has played an important role in expanding WASH services, reliance on externally funded programmes can create sustainability risks if local financing mechanisms are not strengthened alongside project implementation.
- **Community and Household Contributions:** Households and communities represent an important source of WASH financing, particularly in rural areas. Household investments are the primary source of financing for sanitation facilities, as families are responsible for constructing and upgrading their own toilets. At the community level, water supply systems are often managed through Water, Sanitation and Hygiene Committees (WASHCOMs) or local operators who collect user tariffs intended to support routine operations and maintenance of water points. However, practical experience in several rural areas indicates that tariff collection and maintenance financing remain inconsistent. Community management structures frequently struggle to mobilise sufficient resources to fund routine maintenance or major repairs, which contributes to declining functionality of water supply infrastructure over time.
- **Microfinance and Financial Institutions:** To support household investments in sanitation without relying on blanket hardware subsidies, the state is promoting the involvement of microfinance institutions and cooperative financial organisations in sanitation financing. Microfinance institutions are a promising source for household sanitation investments. The co-creation workshop highlighted the willingness of institutions like Ekondo Microfinance Bank to provide loans for sanitation improvements, particularly when linked to trusted intermediaries (e.g., toilet owners, toilet Pry). These institutions can provide small-scale credit and sanitation loans to households seeking to construct or upgrade sanitation facilities. By strengthening links between sanitation markets and financial institutions, the state aims to reduce upfront cost barriers to improved sanitation while encouraging sustainable household-led investments. The strategy recommends that the Ministry of Water Resources facilitate a structured engagement between microfinance institutions and the WASH sector to expand access to affordable financing.

3.3 Historical Financing Trends and Sector Financing Performance

To understand how WASH financing has evolved in Cross River State, this section analyses trends in public sector allocations and expenditure over the period 2020 to 2025. The analysis begins with state-level financing across the three core WASH institutions, followed by a snapshot of local government contributions. Together, these provide an indicative picture of the scale, composition, and performance of public financing in the sector.

3.3.1 State-Level WASH Financing Trends (2020–2025)

WASH financing at the state level in Cross River State is delivered through three core institutions: the Ministry of Water Resources, the Rural Water Supply and Sanitation Agency (RUWASA), and the Cross River State Water Board. These institutions also serve as the primary channels through which federal programmes and development partner investments are implemented. As such, state-level financing trends provide a consolidated view of public WASH financing flows, including externally supported investments that are integrated into government systems.

Financing Trends and Volatility

Analysis of approved financing between 2020 and 2025 shows significant volatility in sector allocations. Total approved WASH financing peaked at approximately ₦12.2 billion in 2020, followed by a sharp contraction in 2021 and 2022, before increasing again in 2024 and moderating in 2025.

It is important to interpret the 2020 peak within the broader fiscal context of the state. The 2020 budget was initially proposed at approximately ₦1.1 trillion but was subsequently revised downward to about ₦147 billion following the fiscal disruptions associated with the COVID-19 pandemic.[1] This adjustment significantly altered sectoral allocations, including WASH, and contributes to the atypical financing profile observed for that year.

[1] *Premiums Times (2020) Covid-19: Cross River slashes 2020 budget from N1.1tr to N147.1bn, Premiumtimesng.com. Available at: https://www.premiumtimesng.com/regional/south-south-regional/405359-covid-19-cross-river-slashes-2020-budget-from-n1-1tr-to-n147-1bn.html?tztc=1*

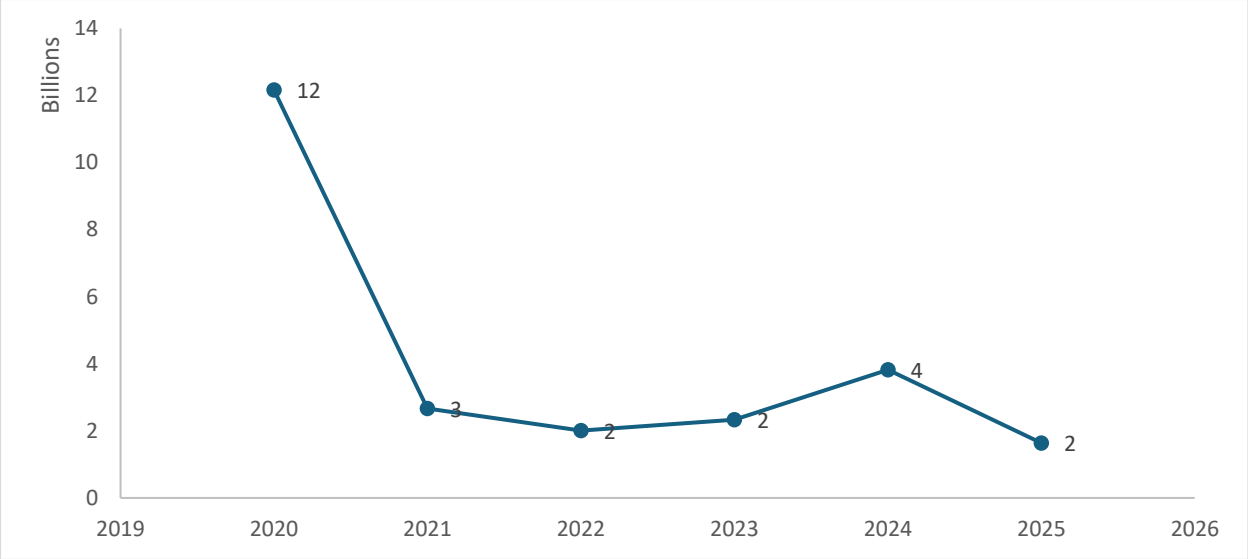

Figure 3 Approved WASH Financing Trends (2020–2025)

Beyond 2020, the trend highlights the absence of a stable and predictable financing trajectory. Large fluctuations in approved budgets suggest that WASH financing is influenced by episodic funding cycles, including externally supported programmes, rather than a consistent medium-term investment strategy. This volatility undermines effective planning, particularly for infrastructure projects that require multi-year financing commitments.

Budget Execution and Absorptive Capacity

Despite periodic increases in approved financing, actual expenditure remains consistently low relative to allocations. In years when performance data are available, execution rates range from approximately 9 per cent to 15 per cent. In addition, some years record no verifiable expenditure, suggesting either gaps in financial reporting or significant delays in fund release and utilisation.

This pattern indicates that the primary constraint within the sector is not only the level of financing but the ability to use allocated resources effectively. Low execution rates point to systemic challenges, including delays in budget releases, procurement bottlenecks, and limited institutional capacity for project implementation. As a result, a significant share of planned investments does not translate into actual service delivery. These constraints are not purely technical, but reflect systemic issues in public financial management, including weak incentives for timely execution and limited accountability for performance.

Importantly, available evidence suggests that where expenditure does occur, it is more consistently associated with personnel and administrative costs, while capital investments are less reliably executed[2]. This further reinforces the conclusion that absorptive capacity constraints disproportionately affect infrastructure delivery.

[2] *Policy Alert (2022) How Cross River State Government Spent Money in 2021 – Policy Alert – Enabling Grassroots Participation in Governance, Policyalert.org. Available at: https://policyalert.org/how-cross-river-state-government-spent-money-in-2021/*

Expenditure Composition and Investment Structure

The composition of approved expenditure reveals additional structural imbalances in sector financing.

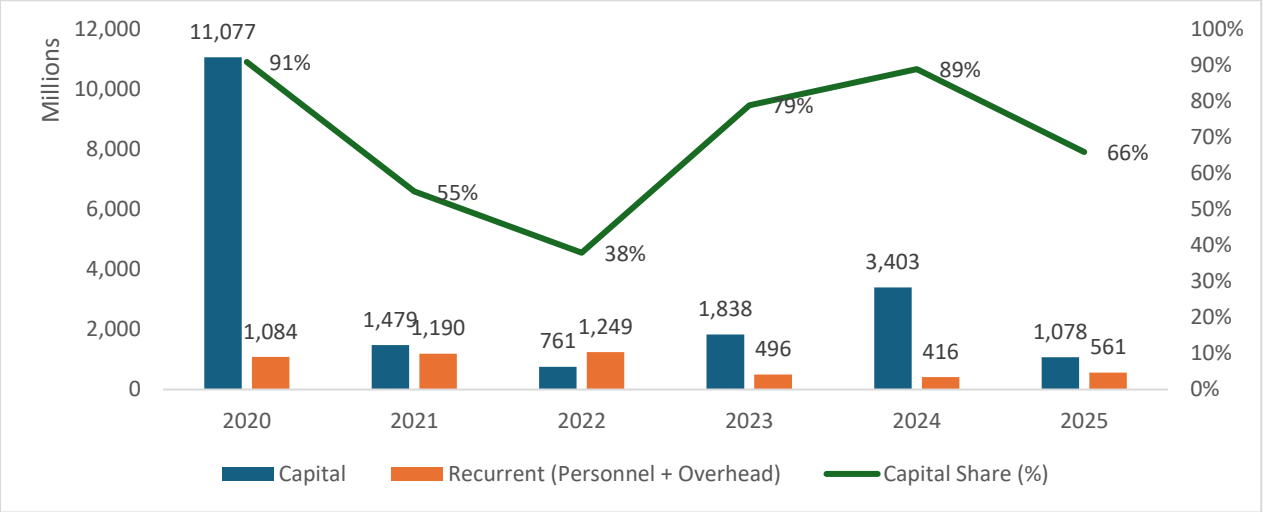

Figure 4 Capital vs Recurrent Composition of WASH Financing

While capital expenditure dominates in several years, particularly in 2020 and 2024, this pattern is not consistent across the period. In 2022, recurrent expenditure exceeded capital spending, indicating a shift towards administrative costs rather than infrastructure investment. The absence of a stable balance between capital and recurrent expenditure suggests weak alignment between investment planning and long-term service delivery requirements.

In particular, high capital allocations combined with low execution rates indicate that infrastructure expansion is planned but not delivered. At the same time, recurrent expenditure, particularly personnel costs, continues to be executed more consistently. This imbalance implies that the system is structurally oriented towards maintaining administrative functions rather than delivering sustained improvements in infrastructure and services.

Revenue Performance and Tariff Implications

Revenue generation within the sector remains extremely limited and does not contribute meaningfully to overall financing.

Table 5 Revenue Performance (2020 to 2024)

Year	Budgeted Revenue	Actual Revenue	% of Actual Revenue
2020	21,677,045	235,000	1%
2021	1,209,250,000	–	–
2022	207,000,000	39,320,824	19%
2023	1,214,750,000	5,402,521	0.4%
2024	311,500,000	6,490,100	2%

Actual revenue consistently underperforms relative to budget projections, with realisation rates below 20 percent in most years and falling below 2 percent in several instances. This indicates fundamental weaknesses in tariff setting, billing systems, collection efficiency, and enforcement mechanisms. These weaknesses are further shaped by political and social constraints around tariff enforcement, particularly in low-income and rural contexts.

Beyond overall performance, the distribution of expected revenue across institutions reveals important structural dynamics within the sector.

Table 6 Share of Budgeted Revenue by Institution (%)

Year	Water Board (%)	RUWASA (%)	Ministry (%)
2020	49%	39%	12%
2021	99%	<1%	<1%
2022	3%	97%	<1%
2023	99%	<1%	<1%
2024	96%	2%	2%

The data shows that expected revenue generation is heavily concentrated within the Cross River State Water Board, particularly in 2021, 2023, and 2024, where it accounts for over 95 percent of total projected revenue. This reflects the reliance on urban water supply systems as the primary source of internally generated revenue within the sector.

In contrast, RUWASA, which is responsible for rural and small-town water supply, contributes only marginally to revenue generation in most years. Even in 2022, where RUWASA accounts for a larger share of projected revenue, actual collection remains low relative to expectations. The Ministry of Water Resources plays a minimal role in revenue generation.

This distribution highlights a fundamental structural constraint within the sector. Revenue generation is largely tied to urban systems with relatively higher tariff potential, while rural and small-town systems operate with limited or non-existent cost recovery mechanisms. As a result, large segments of the population, particularly in rural areas, rely on publicly funded or donor-supported service delivery models that are not financially self-sustaining.

The negligible contribution of internally generated revenue across all institutions reinforces the sector's heavy dependence on government allocations and externally funded programmes. This has significant implications for sustainability, as it limits the ability of service providers to finance routine operations and maintenance. In the absence of effective and context-appropriate cost recovery mechanisms, particularly for rural and small-town systems, infrastructure investments are unlikely to be sustained over time.

Broadview of State-Level Financing Performance

Overall, the analysis shows that while WASH financing allocations in Cross River State are periodically substantial, their impact is significantly constrained by systemic inefficiencies. Financing is characterised by volatility, low execution rates, inconsistent expenditure patterns, and extremely weak revenue mobilisation.

These factors collectively indicate that the core challenge facing the sector is not only resource mobilisation but the effectiveness of public financial management and institutional capacity to translate financial allocations into sustainable service delivery outcomes.

3.3.2 LGA-Level WASH Financing Snapshot

Available data for 2025 Local Government council provides an indicative snapshot of WASH financing at the local government level in Cross River State. It is important to note that the figures presented in this section are based on budget allocations, rather than actual expenditure, and therefore reflect planned financing rather than realised spending.

Despite this limitation, the data provides important insights into the scale, structure, and distribution of local government contributions to the WASH sector.

Size and Structure of LGA WASH Financing

Total LGA WASH financing allocations for 2025 amount to approximately **₦1.78 billion**, representing a modest but important component of the overall sector financing landscape.

The composition of financing reveals a strong concentration of resources in capital expenditure, which accounts for approximately 87 percent of total allocations. In contrast, operational spending and personnel costs represent a small share of total financing.

This indicates that LGA WASH financing is primarily oriented towards infrastructure development, with limited provision for the recurrent costs required to sustain service delivery. Personnel allocations are minimal and appear to be provided on an ad hoc basis, rather than through structured staffing arrangements for WASH service delivery. Similarly, operational funding, which is critical for routine maintenance and system functionality, remains low across most LGAs.

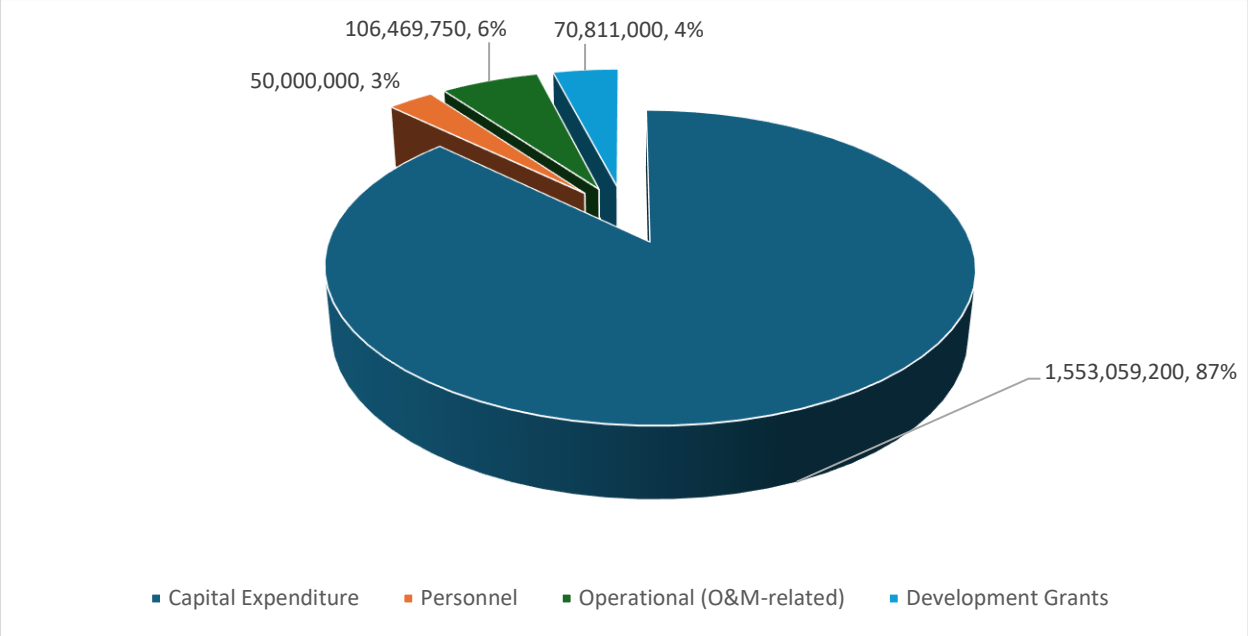

Figure 5 Composition of LGA WASH Allocation Envelope

Development grants account for a small proportion of total financing and are unevenly distributed, suggesting that external support is project-based rather than systematically embedded within local government financing frameworks.

Overall, the structure of LGA financing highlights a fundamental imbalance between investment in infrastructure and investment in sustainability.

Spatial Distribution of LGA WASH Financing

To better understand how financing is distributed across different service environments, LGAs have been grouped into two (2) categories: **urban LGAs** and **rural/small-town LGAs** (including semi-urban and mixed areas).

Table 7 Distribution of LGA WASH Financing by Settlement Type

Category	Total WASH Financing (₦)	Share (%)
Urban LGAs	148,500,000	8%
Rural / Small Town LGAs	1,631,839,950	92%
Total	**1,780,339,950**	**100%**

The distribution of financing shows that approximately 92 percent of LGA WASH allocations are directed towards rural and small-town areas, while urban LGAs account for only about 8 percent of total allocations.

This reflects the concentration of local government responsibilities in rural and small-town service delivery, where state-level systems are less dominant. However, despite receiving

most financing, these areas are also characterised by weaker revenue generation capacity and limited cost recovery mechanisms.

In contrast, urban areas, particularly within the Calabar metropolitan area, are primarily served by the State Water Board and are expected to generate revenue through tariff systems. As a result, LGA financing plays a less significant role in urban WASH service delivery.

Implications for Sector Sustainability

The analysis highlights a structural disconnect between the geographic distribution of financing and the composition of that financing.

While rural and small-town LGAs receive the largest share of WASH allocations, the overwhelming focus on capital expenditure, combined with limited provision for operations, maintenance, and personnel, suggests that these investments may not be sustained over time.

This creates a high risk of infrastructure deterioration, particularly in rural areas where community management systems and tariff mechanisms are already weak. Without adequate financing for routine maintenance and system management, newly constructed or rehabilitated infrastructure is unlikely to remain functional over the long term.

At the same time, the limited role of LGAs in urban WASH financing reinforces the sector's dependence on state-level institutions and revenue-generating utilities. This further highlights the dual structure of the sector, where urban systems are expected to operate on a cost-recovery basis, while rural and small-town systems remain dependent on public funding and external support.

In the context of increasing discussions around local government autonomy in Nigeria, strengthening the role of LGAs in WASH financing, particularly in financing operations and maintenance, will be critical for improving the sustainability of service delivery across the state.

3.3.3 Household and Community Contributions to WASH Financing

Beyond public sector financing, households and communities also contribute significantly to WASH financing in rural and small-town areas of Cross River State. These contributions are particularly concentrated within household sanitation improvements, community-level operation and maintenance of rural water systems, tariff payments, and small-scale self-supply investments.

Evidence from Nigeria's WASH Accounts analysis indicates that households finance a substantial share of sanitation-related investments, while public financing remains more dominant in large-scale water supply infrastructure and institutional WASH services. In rural and small-town areas, household expenditure is particularly important under Community-Led Total Sanitation (CLTS) approaches, where households are primarily responsible for financing toilet construction and upgrades following triggering activities.

To provide an indicative estimate of household and community contributions within the sector, planning assumptions were developed using the projected 2025 rural and small-town population adopted under this strategy, combined with indicative sanitation investment patterns derived from national WASH Accounts experience and rural sanitation financing trends.

Table 8: Indicative Household and Community WASH Financing Assumptions

Assumption Area	Indicative Value
Estimated Rural and Small-Town Population (2025)	2.9 million
Estimated Household Size	5 persons
Estimated Rural and Small-Town Households	~580,000 households
Assumed Annual Household Sanitation Investment Rate	3% of households
Estimated Households Investing Annually	~17,400 households
Indicative Average Household Sanitation Investment	₦75,000 – ₦100,000
Estimated Annual Household Sanitation Financing	₦1.3bn – ₦1.7bn
Estimated Community Water Contributions (tariffs/minor repairs)	₦150m – ₦300m
Indicative Total Household & Community Contribution Envelope	₦1.5bn – ₦2.0bn annually

***Note**: Estimates are indicative planning assumptions derived from projected rural and small-town population figures, CLTS implementation experience, rural sanitation investment patterns, and Nigeria WASH Accounts financing trends. They do not represent verified household expenditure survey data.*

The analysis suggests that household and community contributions represent an important supplementary component of the WASH financing landscape in Cross River State, particularly within sanitation and community-level maintenance activities. However, these contributions remain largely informal and insufficient to address major infrastructure deficits or sustain large-scale rural water systems over time.

Accordingly, while household and community financing contributes to sector sustainability, the financing framework proposed under this strategy remains primarily anchored on strengthening public financing systems, lifecycle financing arrangements, institutional WASH investment, and long-term service delivery sustainability.

3.3.4 Indicative Public Financing Envelope for WASH

To support subsequent analysis of financing gaps and investment requirements, an indicative estimate of the overall WASH financing envelope for Cross River State was developed by

combining state-level financing trends, local government allocations, and indicative household and community contributions. This provides a broader picture of resources flowing into the sector across rural and small-town areas.

It is important to note that the estimate combines approved public budgets with indicative household and community expenditure assumptions and therefore reflects nominal or planned financing rather than actual expenditure. As highlighted in previous sections, persistent budget execution challenges significantly reduce the effective financing available for service delivery.

At the state level, approved WASH financing between 2021 and 2024 ranged from approximately ₦2.0 billion to ₦3.8 billion annually. Based on these trends, the indicative average annual state allocation is estimated at approximately ₦2.7 billion, including domestically funded investments and externally supported programmes channelled through government systems.

At the local government level, WASH financing is projected at approximately ₦1.78 billion based on 2025 budget allocations, reflecting the role of LGAs in supporting rural and small-town WASH service delivery.

In addition to public financing, households and communities also contribute to WASH financing, particularly through sanitation investments, community-level maintenance, and small-scale rural water improvements. Using indicative assumptions derived from projected rural and small-town population estimates, CLTS implementation experience, and national WASH Accounts financing patterns, household and community contributions are estimated at approximately ₦1.75 billion annually.

Table 9: Indicative WASH Financing Envelope

Source	Estimated Annual Allocation (₦)	Share (%)
State Government	2,700,000,000	43%
Local Governments	1,780,000,000	29%
Household and Community Contributions*	1,750,000,000	28%
Total Indicative Financing Envelope	**6,230,000,000**	**100%**

**Household and community contribution estimates are indicative planning assumptions derived from projected rural and small-town population estimates, sanitation investment patterns, CLTS implementation experience, and Nigeria WASH Accounts financing trends. They do not represent verified household expenditure survey data.*

Taken together, the analysis indicates that the broader nominal WASH financing envelope in Cross River State is approximately ₦6.2 billion annually when household and community expenditure is considered alongside public financing flows. While public financing remains

the dominant source of sector funding, households and communities also contribute significantly, particularly within sanitation and minor maintenance activities.

However, nominal financing does not translate directly into effective service delivery. As demonstrated in earlier sections, actual expenditure remains significantly lower than approved allocations due to persistent constraints in budget execution, procurement processes, institutional capacity, and weak maintenance systems.

Available evidence further suggests that expenditure is more consistently associated with personnel and administrative costs, while capital expenditure for infrastructure and service expansion is less reliably executed. This creates a structural imbalance where a disproportionate share of financing supports administrative functions rather than sustained service delivery outcomes.

At the local government level, this imbalance is reinforced by financing structures heavily skewed towards capital investment with limited provision for operations, maintenance, and asset replacement. Combined with weak execution capacity, this increases the risk that infrastructure investments are delayed, poorly maintained, or unsustained over time.

A realistic assessment of financing must therefore distinguish between nominal and effective financing. While the nominal financing envelope exceeds ₦6 billion annually, actual financing available for sustained WASH service delivery is likely to remain substantially lower due to execution inefficiencies and weak lifecycle financing arrangements.

The distinction between nominal and effective financing is therefore critical for subsequent analysis. While the indicative financing envelope provides a baseline for estimating investment requirements and financing gaps, effective financing reflects the resources that translate into sustainable WASH outcomes.

3.4 Operations and Maintenance Financing

Current financing patterns in the WASH sector in Cross River State reveal a fundamental structural weakness: while significant resources are allocated towards capital investment, there is little to no systematic financing for operations, maintenance, and asset replacement. This imbalance undermines the sustainability of infrastructure and limits the long-term impact of public investment in the sector.

Across both state and local government levels, financing frameworks are not explicitly designed to support ongoing system functionality. Budget structures either do not clearly define Operations and Maintenance (O&M) financing or allocate minimal resources towards it. As shown in subsequent section, local government allocations are heavily skewed towards capital expenditure, while recurrent spending at the state level is largely absorbed by personnel and administrative costs rather than maintenance functions. As a result, O&M financing remains underfunded and largely invisible within formal budgeting systems.

In practice, the responsibility for maintaining WASH infrastructure is often transferred to communities and service users, particularly in rural and small-town areas. However, this informal financing model is not supported by effective cost recovery mechanisms. Revenue analysis shows that internally generated revenue across the sector is extremely low, with realisation rates below 20 percent in most years and significantly lower in several instances. This indicates that tariff systems are either absent, weak, or poorly enforced, particularly outside urban areas served by the State Water Board.

Even in urban systems, where tariffs are expected to play a central role in financing operations, revenue performance remains insufficient to cover operational costs. In rural and small-town contexts, where RUWASA operates, tariff collection is minimal or non-existent, and community management structures lack the financial capacity to sustain infrastructure. This creates a systemic dependence on public or donor-funded capital investments without corresponding mechanisms to sustain those investments over time.

The absence of predictable O&M financing has also resulted in a predominantly reactive approach to maintenance. Rather than being planned and budgeted, maintenance activities are typically undertaken only after system failures occur, if at all. Preventive maintenance, which is critical for extending asset life and reducing long-term costs, is largely absent. Evidence from local government contexts such as Yala indicates that minor technical faults frequently escalate into complete system breakdowns due to the lack of timely repairs and available financing.

More critically, Capital Maintenance Expenditure (CapManEx), which includes major repairs, rehabilitation, and asset replacement, is not systematically planned or financed within the sector. Infrastructure investments are therefore treated as one-off capital projects, with little consideration for lifecycle costs. This leads to the gradual accumulation of non-functional infrastructure and the erosion of previous investments.

The combined effect of these dynamics is the emergence of an unsustainable service delivery model in which infrastructure is constructed but not maintained. Over time, this results in declining functionality rates, increased rehabilitation costs, and reduced service coverage, particularly in rural and small-town areas.

Overall, the analysis shows that the core sustainability challenge in the WASH sector is not only the level of financing but the structure of that financing. Without explicit and reliable mechanisms to fund operations, maintenance, and asset replacement, increases in capital investment are unlikely to translate into sustained service delivery outcomes. Strengthening O&M financing systems will therefore be critical to improving the efficiency and long-term impact of WASH investments in Cross River State.

3.5 Key Strengths and Structural Constraints in Current WASH Financing

The analysis of WASH financing in Cross River State reveals a sector characterised by both **emerging institutional strengths and deep structural constraints**. While there is evidence of

growing government commitment, a defined financing architecture, and continued engagement from development partners, these are undermined by systemic inefficiencies that limit the translation of financial resources into sustainable service delivery outcomes.

On the one hand, the sector benefits from a relatively well-defined institutional structure, with clear roles across state-level agencies and increasing recognition of the importance of coordinated financing. The presence of multiple financing streams, including state budgets, local government allocations, and externally supported programmes, provides a potentially strong foundation for scaling up investment.

On the other hand, the effectiveness of this financing system is significantly constrained by low budget execution, weak revenue mobilisation, and a structural imbalance between capital investment and the financing required to sustain infrastructure over time. As demonstrated in previous sections, the sector operates with a relatively high nominal financing envelope of approximately ₦6.3 billion annually, but with an effective financing level that is substantially lower due to persistent implementation challenges.

These dynamics point to a system in which **financing exists in form, but not in function**. The key strengths and constraints shaping this reality are summarised below.

Table 8 Summary of Strengths and Structural Constraints in WASH Financing

Key Strengths	Structural Constraints
Presence of a defined institutional framework across the Ministry of Water Resources, RUWASA, and the State Water Board	Low budget execution rates, limiting the conversion of allocations into actual service delivery
Multiple financing sources, including state budgets, LGA allocations, and development partner support	Heavy reliance on externally supported and episodic funding, leading to volatility in financing
Growing policy recognition of sustainable financing approaches, including Life Cycle Costing principles	Weak integration of O&M and CapManEx within budgeting frameworks, resulting in unsustainable investments
Significant nominal public financing envelope (approximately ₦6.3 billion annually)	Effective financing substantially lower due to execution constraints, likely below ₦1 billion annually
Strong role of local governments in financing rural and small-town WASH services	LGA financing heavily skewed towards capital expenditure, with minimal provision for maintenance and personnel

Potential for tariff-based financing in urban systems through the State Water Board	Extremely weak revenue mobilisation across the sector, particularly in rural and small-town areas
Existing community-based management structures (e.g. WASHCOMs) providing a foundation for local service delivery	Limited financial capacity of communities and weak tariff systems, undermining sustainability
Increasing policy attention to sector coordination and reform	Fragmented financing data and weak coordination between state and local government financing systems

Overall, the current WASH financing system in Cross River State reflects a combination of strong institutional intent and weak financial functionality. While the sector is supported by multiple financing sources and a relatively substantial nominal funding envelope, systemic constraints in execution, revenue generation, and expenditure structure significantly reduce the effectiveness of these resources.

In particular, the absence of reliable financing for operations and maintenance, combined with low budget execution and weak cost recovery mechanisms, creates a high risk that existing and future investments will not translate into sustained service delivery outcomes.

These findings highlight that the core challenge facing the sector is not only to mobilise additional resources, but to improve the efficiency, structure, and sustainability of existing financing flows.

4. Current Service Coverage and Sector Gaps

4.1 Rural and Small-Town Population Distribution

Cross River State's WASH service delivery context is defined by a predominantly rural and small-town population structure, which has direct implications for infrastructure planning, service delivery models, and financing requirements.

The state's population is estimated at approximately 4,901,419 in 2025, based on projections derived from the 2006 national census and settlement classification data from the 1991 census, with an annual growth rate of 3.5 percent from 2026 onwards. This growth trend indicates steadily increasing demand for WASH services and reinforces the need for forward-looking and scalable investment planning.

For planning and analytical purposes, settlements are classified in line with state policy using population thresholds: rural settlements (below 5,000 residents), small towns (5,000 to less than 20,000 residents), and urban areas (20,000 residents and above). Based on this classification and projected population distribution, approximately 26 percent of the population resides in small-town (semi-urban) contexts, while 53 percent live in rural and

often dispersed settlements. Taken together, this indicates that approximately 79 percent of the population resides in rural and small-town contexts.

This settlement pattern confirms that WASH service delivery in Cross River State is not urban-led but is instead dominated by rural and small-town systems. Dispersed rural settlements increase the cost of infrastructure provision and limit economies of scale, while small towns offer opportunities for more clustered and scalable service delivery models, including small piped systems. Mixed settlement contexts further require adaptive approaches that combine both community-managed and semi-centralised systems.

The distribution of the population across settlement types is summarised in the table below.

Table 9 Population Distribution by Settlement Type (2025)

Settlement Category	Population	Share of Total Population
Urban (Calabar Municipality & Calabar South)	1,029,298	11%
Rural and Small-Town LGAs (combined)	3,872,121	79%
Total	**4,901,419**	**100%**

Overall, approximately 79 per cent of the population lives in rural and small-town areas, confirming that the state's WASH system must be designed primarily around decentralised and small-town service delivery models. This population segmentation provides the foundation for estimating service demand, identifying infrastructure needs, and structuring the financing and investment requirements presented in subsequent sections of this strategy.

4.2 Water Supply Coverage

Access to water supply services in Cross River State remains limited, with a clear gap between reported coverage and actual service reliability. According to the WASHNORM 2021 report, about 49 per cent of the population has access to basic water services, while only 5 per cent have access to safely managed services, indicating limited progress toward higher service levels.

More recent data from the Cross River State WASH Investment Plan (2024) shows that 69 percent of rural residents have access to basic water supply, exceeding the national rural average. However, these masks underlying system weaknesses, particularly poor infrastructure performance.

Functionality remains a major constraint. Evidence from the Investment Plan indicates that only about 44 percent of rural water facilities are functional. Given that most of the state's population resides in rural and small-town areas, this low functionality significantly reduces overall service performance.

When functionality is considered, effective coverage drops sharply. Estimates suggest that actual safe water coverage ranges between 25 and 46 percent across LGAs and may be as low as 14.9 percent in terms of reliable rural service. This implies that more than half of the population lacks dependable access to safe water.

Data from the Water, Sanitation and Hygiene Information Management System (WASHIMS) shows that 75.5 percent of facilities are hand pump boreholes, while 23.4 percent are motorised boreholes. This reflects the dominant rural service model across most LGAs. However, it also contributes to functionality challenges, as hand pump systems depend on regular maintenance, spare parts, and effective community management, which remain weak.

As a result, many communities rely on unsafe sources such as rivers, streams, and unprotected wells, with increasing dependence on self-supply and community-led solutions. This contributes to the prevalence of waterborne diseases and highlights systemic gaps in service delivery.

State guidelines define adequate service as 30 litres per person per day, from a source within 250 metres, with a collection time under 30 minutes, and a cost not exceeding 3 percent of household income. Current service levels fall short of these standards for a large share of the population.

Overall, water supply challenges in Cross River State are driven less by access alone and more by low functionality and weak service systems. Expanding infrastructure is necessary, but priority must be given to rehabilitation, operation and maintenance, and strengthening service delivery systems, particularly within the dominant hand pump-based rural model.

4.3 Sanitation Coverage and Open Defecation Status

Sanitation coverage in Cross River State remains a major challenge, with significant implications for public health, human dignity, and environmental outcomes. According to the WASHNORM 2021 survey, approximately 41 percent of the population practices open defecation, while safely managed sanitation remains below 10 percent, indicating that a large share of the population lacks access to safe and hygienic sanitation services.

Although rural basic sanitation access is estimated at about 58 percent, this masks poor service quality. Many households rely on unimproved facilities, including traditional pit latrines without slabs, hanging toilets, or open pits that do not effectively separate human waste from human contact. As a result, reported access does not translate into safe sanitation outcomes.

Open defecation is widespread and uneven across the state. While the state average is 41 percent, localised data shows much higher rates in specific areas. For example, Yala LGA records an overall open defecation rate of 42.3 percent, with some wards, such as Waniheim, reaching 81 percent, highlighting severe intra-LGA disparities.

These patterns are strongly linked to settlement structure. In rural areas, open defecation rates are highest due to limited access to improved sanitation, affordability constraints, and entrenched social norms. The cost of constructing durable latrines remains beyond the reach of many households, while sanitation practices are shaped by traditional institutions and community norms. This underscores the need for sustained social and behaviour change interventions, rather than infrastructure provision alone.

In small towns and urban areas, sanitation access is relatively higher, with greater use of flush or pour-flush systems connected to septic tanks or lined pits. However, increasing population density is placing pressure on existing systems. A critical gap is the near absence of Faecal Sludge Management (FSM) services, including regulated pit-emptying and treatment facilities. As a result, containment systems are poorly managed, leading to overflow, unsafe disposal, or abandonment of filled pits.

The state also faces a high risk of sanitation slippage, where communities revert to open defecation after achieving Open Defecation Free (ODF) status. Between 2010 and 2018, 12 LGAs were declared ODF, of which 6 have since relapsed. This reflects weak post-ODF monitoring, limited enforcement of sanitation by-laws, and inadequate access to durable facilities. In flood-prone areas, poorly constructed latrines frequently collapse or become unusable during heavy rainfall, forcing households back to open defecation. At the same time, limited access to financing and underdeveloped sanitation markets constrains households' ability to rebuild or upgrade facilities.

Overall, sanitation challenges in Cross River State are driven by behavioural factors, infrastructure quality, and weak service systems. Addressing these challenges requires an integrated financing approach that goes beyond infrastructure provision. This includes sustained investment in behaviour change programmes, support for household sanitation financing through market-based mechanisms and microcredit, and development of faecal sludge management systems in small towns and urban areas. Financing must also support climate-resilient sanitation technologies and strengthen post-ODF monitoring systems to prevent slippage. This indicates that sanitation financing should prioritise both hardware and non-hardware investments, with a strong focus on sustainability and service delivery systems.

4.4 Household Handwashing Facilities

Access to household handwashing facilities in Cross River State remains limited and uneven, constraining the effectiveness of both water supply and sanitation services. According to available data, only 32 percent of households have access to basic handwashing facilities with soap and water, indicating that most of the population lacks the minimum conditions required for effective hygiene practice.

This gap is more pronounced in rural areas. Evidence shows that only a small proportion of rural households have access to handwashing facilities, with up to 69 percent lacking any facility on their premises. Micro-level data from areas such as Yala LGA further highlights the

severity of the challenge, where 61.7 percent of households lack any handwashing facility. These patterns reflect significant geographic disparities and confirm that hygiene remains the weakest component of WASH service delivery across the state.

The absence of functional handwashing facilities undermines sanitation outcomes and contributes to disease transmission. Even where toilet access exists, the lack of hand hygiene creates a critical gap, allowing faecal-oral transmission pathways to persist. This "hygiene gap" limits the public health impact of investments in water and sanitation and contributes to the continued prevalence of waterborne and hygiene-related diseases.

Evidence also shows that hygiene practices are difficult to sustain without dedicated systems. Many handwashing facilities introduced during public health campaigns are temporary and fall into disuse, reflecting the absence of sustained behaviour change mechanisms, reliable access to water and soap, and local supply systems.

Addressing this gap requires a shift in how hygiene is financed and delivered. Hygiene interventions must prioritise behaviour change alongside infrastructure, with sustained investment in Social and Behaviour Change Communication (SBCC), community facilitation, and local engagement mechanisms. Financing must also support household-level access to basic hygiene materials, including affordable handwashing facilities and soap, particularly for vulnerable households. In addition, hygiene promotion should be integrated into sanitation programmes, ensuring that the construction of household latrines is accompanied by functional handwashing facilities. Strengthening local supply chains and community-based delivery systems will be essential to ensure sustained access and long-term behaviour change.

4.5 Institutional WASH Conditions in Rural and Small-Town Areas

Beyond household-level service gaps, the 2020 PEWASH[3] Baseline Survey also revealed significant deficits in institutional WASH services across rural and small-town areas of Cross River State. The assessment covered schools, health centres, markets, motor parks, and other public facilities across multiple LGAs. The findings show inadequate access to water, sanitation, and hygiene services, with significant implications for public health and service delivery.

The baseline further shows that institutional WASH remains weak across rural and small-town areas, with limited water and sanitation access, critically low hygiene coverage, and widespread functionality challenges affecting existing infrastructure systems.

Table 10 Summary of Institutional WASH Conditions in Rural and Small-Town Areas

Indicator	Estimated Status
Estimated Public Places Assessed	~1,250–1,300

[3] PEWASH (Partnership for Expanded Water Supply, Sanitation and Hygiene) is a Federal Government initiative launched in 2016 to improve access to rural water supply, sanitation, and hygiene services in support of SDG 6.

Public Places with Water Access	~39%
Public Places without Water Access	~61%
Public Places with Sanitation Access	~45%
Public Places without Sanitation Access	~55%
Public Places with Hygiene Facilities	~13%
Public Places without Hygiene Facilities	~87%

Note: Table compilation excludes urban LGAs and is based on rural and small-town datasets available from the 2020 PEWASH Baseline Survey.

The survey findings indicate that hygiene infrastructure is the most underdeveloped component of institutional WASH service delivery. Access to handwashing facilities with soap and water was extremely limited across schools, markets, motor parks, and other public gathering spaces. While some health facilities demonstrated relatively better hygiene coverage, overall access remained inadequate across institutional settings. This suggests that hygiene has historically received less investment attention compared to water supply infrastructure, despite its importance for infection prevention, menstrual hygiene management, public health protection, and safe learning environments.

The water infrastructure assessment further revealed significant functionality challenges across rural and small-town systems. Although substantial infrastructure stock exists across assessed LGAs, a large proportion of facilities were either non-functional or operating below expected service levels. This indicates that rural WASH challenges are increasingly linked not only to infrastructure deficits, but also to weak operation and maintenance systems, inadequate rehabilitation financing, and limited lifecycle asset management arrangements.

The findings also highlight significant institutional gaps in schools, health facilities, markets, and transport hubs. Markets and motor parks were among the least served public spaces, particularly in relation to hygiene infrastructure and sanitation services. This contributes to environmental sanitation risks and undermines broader public health outcomes. In schools and healthcare facilities, inadequate WASH services continue to affect learning conditions, infection prevention and control, dignity, and the overall quality of public service delivery.

The implications for the WASH Financing Strategy are substantial. The findings suggest that future investments should move beyond one-off infrastructure expansion towards a more comprehensive service delivery approach that integrates rehabilitation financing, operations and maintenance systems, institutional hygiene infrastructure, and lifecycle sustainability. The evidence also supports the need for dedicated institutional WASH financing windows targeting schools, healthcare facilities, markets, and public places in underserved rural and small-town communities.

Overall, the PEWASH Baseline Survey provides important evidence that strengthening institutional WASH systems should form a core component of the State's rural and small-town WASH financing approach. This includes prioritising rehabilitation of existing systems, expanding institutional sanitation and hygiene infrastructure, and strengthening long-term service sustainability arrangements within public institutions.

5. Service Delivery Models and Costing Framework

Delivering universal WASH access in Cross River State requires a structured framework that links service delivery realities to clearly defined service standards, delivery models, and sustainable financing requirements. It defines the service levels to be achieved, the delivery models through which services will be provided, and the cost structure required to sustain them over time.

The framework draws on national policy standards, state-level sector analysis, and empirical evidence from LGA-level planning processes, particularly the Yala WASH Strategic Plan commissioned by SHA. These inputs are used to define realistic service delivery benchmarks and life-cycle cost assumptions, while recognising variations in geography, settlement patterns, and institutional capacity across the state

5.1 Service Level Benchmarks for Water and Sanitation

Service level benchmarks provide the foundation for estimating WASH investment requirements by defining the standard of service that the state aims to deliver. These benchmarks are aligned with the WHO/UNICEF Joint Monitoring Programme (JMP) service ladders, which classify water, sanitation, and hygiene services along a continuum from no service to safely managed service.

For this financing strategy, the costing framework is anchored on achieving universal access to at least basic WASH services by 2031, in line with national targets and the Cross River State WASH Policy. Basic service levels represent a realistic and financially attainable benchmark within the current fiscal context, while also delivering significant public health benefits.

Under this framework:

- **Basic water service** is defined as access to an improved water source within a reasonable collection time, typically not exceeding 30 minutes round trip.
- **Basic sanitation service** is defined as access to improved sanitation facilities that are not shared between households.
- **Basic hygiene service** is defined as the presence of a functional handwashing facility with soap and water at the household level.

These service levels determine the types of technologies, infrastructure configurations, and management arrangements that are included in the costing model. Higher service levels, such as safely managed services, are recognised as long-term policy aspirations but are not used

as the primary basis for investment estimation in this strategy due to their significantly higher cost implications.

By clearly defining the service standard being targeted, the strategy ensures that investment estimates are both realistic and aligned with achievable sector outcomes, while maintaining flexibility for gradual service level improvements over time.

5.2 Rural Water Supply Service Models

Rural water supply in Cross River State is characterised by dispersed settlements, limited institutional presence, and a heavy reliance on community-managed systems. As established in earlier sections, handpump-equipped boreholes remain the dominant service delivery model but are associated with persistent functionality challenges due to weak operation and maintenance systems.

To address these realities, the costing framework adopts a set of standardised rural service delivery models, reflecting both existing practice and the need for improved sustainability. These models are informed by state-level sector experience and LGA-level planning benchmarks, particularly the Yala WASH Strategic Plan, where technology choices are explicitly linked to lifecycle costs and financing requirements.

The rural service delivery models assumed in this strategy include:

- **Handpump-equipped boreholes** serving small and dispersed communities, representing the primary and most widely deployed rural water supply option.
- **Solar-powered motorised borehole systems** serving larger or clustered rural populations, where demand levels justify higher capital investment and more structured management arrangements.

Each model is defined not only by its technology, but also by its service capacity, management structure, and lifecycle requirements. Assumptions are made regarding the typical population served per facility, reflecting standard rural planning benchmarks, while recognising that actual service populations may vary depending on settlement density and local conditions.

Crucially, these systems are costed using a life-cycle approach, which accounts for:

- Initial capital investment (CapEx)
- Routine operation and minor maintenance (OpEx)
- Periodic rehabilitation and component replacement (CapManEx)

Experience from both Cross River State and the Yala LGA assessment indicates that rural water systems frequently fail not due to inadequate initial investment, but due to the absence of sustained financing for operation and capital maintenance. As such, the selection and costing of rural service delivery models in this strategy explicitly incorporate these lifecycle requirements to ensure that infrastructure investments translate into durable and functional services.

By defining rural water supply in terms of standardised, costed service delivery models, the strategy establishes a clear basis for estimating investment needs, identifying financing gaps, and designing sustainable funding mechanisms for rural WASH service provision.

5.3 Small Town Water Supply Service Models

Small towns in Cross River State require service delivery models that accommodate higher population density, concentrated demand, and the need for structured system management. These conditions necessitate a shift from dispersed, community-managed systems to more integrated and professionally managed water supply arrangements.

The costing framework therefore assumes **motorised and solar-powered piped water systems** as the primary service delivery model for small towns. These systems typically include water abstraction, storage, and distribution networks supplying water through public standpipes, yard connections, and, where feasible, household connections.

Compared to rural systems, small-town water supply is associated with higher capital costs, more complex operational requirements, and significant lifecycle maintenance needs. A defining feature of these systems is their reliance on **structured service providers** and **tariff-based revenue** for sustainability.

Evidence from LGA-level planning, particularly the Yala WSP, demonstrates that system sustainability is sensitive to the balance between tariff revenue and actual operation and maintenance requirements. Where this balance is not achieved, systems deteriorate rapidly despite substantial initial investment.

The costing framework therefore treats small-town systems as ongoing service delivery operations rather than one-time infrastructure investments, incorporating realistic assumptions on cost recovery, lifecycle maintenance, and institutional support.

Table 11 Small Town Water Supply Cost and Risk Profile

Component	Typical Cost Implication	Financing Source	Key Risk if Unfunded
Capital Investment (CapEx)	High (infrastructure, storage, distribution networks)	Government / Donors	Under-sized or incomplete systems
Operation and Maintenance (OpEx)	Moderate to High (energy, staffing, repairs)	Tariffs (primary)	System downtime and service unreliability
Capital Maintenance (CapManEx)	High (pump, inverter, network replacement)	Blended (tariffs + public funding)	Total system failure after initial years

Institutional and Management Costs	Moderate (utility oversight, billing systems, regulation)	Government / Tariffs	Poor revenue collection and weak system management
Revenue (Tariffs)	Variable (depends on affordability and collection efficiency)	Users	Revenue shortfalls leading to O&M deficits

5.4 Sanitation Service Delivery Approaches

Sanitation service delivery in Cross River State is primarily driven by household investment, behaviour change, and local market systems, rather than large-scale public infrastructure. As such, the costing framework adopts a demand-led and market-based approach, consistent with national policy and LGA-level planning evidence, including the Yala WSP.

The strategy assumes that sanitation improvements are achieved through:

- Household construction and upgrading of improved sanitation facilities.
- Behaviour changes interventions, particularly Community-Led Total Sanitation (CLTS)
- Strengthening of local sanitation markets, including artisans and supply chains

Public financing is therefore focused on enabling conditions rather than direct household subsidies. This reflects evidence from Yala and broader sector experience, which shows that sustained sanitation outcomes depend more on behaviour change systems than on one-time infrastructure provision.

In small towns and higher-density settlements, sanitation service delivery also requires consideration of the Faecal Sludge Management (FSM) chain, including containment, desludging, transport, and safe treatment or disposal. These introduce additional service and regulatory costs beyond household-level sanitation.

The costing framework therefore captures sanitation as a continuous service delivery function, incorporating both capital and non-capital expenditures required to sustain behaviour change and service delivery over time.

Table 12 Sanitation Cost Components and Financing Logic

Cost Component	Description	Primary Financing Source	Key Risk if Unfunded
Household Sanitation Facilities (CapEx)	Construction of improved latrines by households	Households (primary), limited subsidies	Continued open defecation and low coverage
Behaviour Change (CLTS, triggering, follow-up)	Community mobilisation and	Government / Donors	Slippage back to open defecation

	sustained engagement		
Sanitation Market Development	Training of artisans, supply chain strengthening	Government / Donors	Poor quality facilities and limited uptake
Institutional Support	LGA-level sanitation coordination and monitoring	Government	Weak programme implementation and oversight
Faecal Sludge Management (FSM)	Desludging, transport, treatment (small towns)	Users / Private sector / Government	Unsafe disposal and environmental contamination

5.5 Behaviour Change and Handwashing Promotion Models

Sustained improvements in sanitation and hygiene outcomes depend not only on infrastructure, but on consistent behaviour change and community-level engagement. As established in earlier sections, hygiene remains the weakest component of WASH service delivery in Cross River State, reflecting both underinvestment and limited institutional prioritisation.

The costing framework therefore explicitly incorporates behaviour change and hygiene promotion as core service delivery components, rather than optional or ancillary activities. This approach is consistent with LGA-level planning evidence, particularly the Yala WSP, which demonstrates that investments in infrastructure alone do not translate into sustained outcomes without corresponding investment in behaviour change systems.

The primary behaviour changes and hygiene promotion interventions assumed in this strategy include:

- Community-Led Total Sanitation (CLTS) triggering and follow-up
- Hygiene promotion campaigns, including handwashing with soap.
- Training and support for community-level structures such as WASHCOMs
- Continuous community engagement and monitoring to sustain behaviour change.

These interventions are costed under direct and indirect support expenditure categories, reflecting their role in enabling service delivery rather than creating physical assets.

A critical insight from Yala and broader sector experience is that behaviour change outcomes are sensitive to the consistency and duration of engagement. One-off campaigns or short-term interventions typically result in temporary gains, followed by slippage in sanitation and hygiene practices.

The costing framework therefore incorporates:

- Recurring expenditures for behaviour change activities, rather than one-time allocations.
- Integration of hygiene promotion within broader sanitation programming
- Institutional costs required to coordinate and sustain community-level engagement.

By explicitly including behaviour change and hygiene promotion within the costing model, the strategy recognises these as essential investments for sustaining WASH outcomes, rather than supplementary activities that can be deferred or underfunded.

5.6 Life-Cycle Costing (LCC) Framework

The sustainability of WASH services in Cross River State depends on the extent to which financing mechanisms account for the full life-cycle cost of service delivery. Evidence from state-level assessments and LGA-level planning, particularly the Yala WSP, shows that WASH systems frequently fail not due to insufficient initial investment, but due to the absence of sustained financing for operation, maintenance, and asset replacement.

The current financing structure remains heavily skewed toward capital expenditure (CapEx), with limited provision for ongoing costs. This reinforces the "build–break–forget" cycle identified earlier, where infrastructure expands during investment phases but deteriorates rapidly in the absence of sustained financing.

To address this, the strategy adopts a Life-Cycle Costing (LCC) approach, which captures all costs required to deliver and sustain WASH services over time, and links each cost category to appropriate financing mechanisms.

Table 13 Life-Cycle Cost Components, Financing Instruments, and Risk Profile

Cost Category	Description	Primary Financing Instruments	Viability of Cost Recovery	Key Risk if Unfunded
Capital Expenditure (CapEx)	Initial investment in infrastructure (water systems, sanitation facilities)	Government budget, donor grants, concessional finance, limited PPPs	Low (rural), Medium (small towns)	Limited-service expansion and coverage gaps
Operation & Minor Maintenance (OpEx)	Routine system operation (energy,	Tariffs (primary), targeted government subsidies, community contributions	Medium (small towns), Low (rural)	System downtime, unreliable service delivery

	staffing, minor repairs)			
Capital Maintenance (CapManEx)	Major repairs and periodic replacement of assets (pumps, inverters, networks)	Blended: public funding, tariffs, concessional/repayable finance (where viable)	Low to Medium	Irreversible system failure after initial years
Direct Support Costs (ExpDS)	Community-level support (WASHCOM training, behaviour change, monitoring)	Government budget, donor support	Low	Weak management, rapid decline in service quality
Indirect Support Costs (ExpIDS)	Sector-wide functions (policy, regulation, planning, coordination)	Government budget, development partners	Low	Weak sector governance and poor coordination
Cost of Capital (CoC)	Financing costs associated with loans, PPPs, or private investment	Repayable finance, blended finance instruments	Medium (only in revenue-generating systems)	Limited private sector participation and constrained investment

Repayable finance, including loans and private sector investment, is only viable in-service delivery models with predictable revenue streams, particularly small-town water supply systems where tariff-based cost recovery can support part of the investment and maintenance costs. In contrast, rural water supply and sanitation systems typically lack sufficient revenue generation capacity, making repayable finance unsuitable as a primary financing mechanism. The strategy therefore adopts a blended financing approach, where public and donor funding finance capital investment, tariffs contribute to routine operations, and government and partners support major maintenance and sector strengthening functions.

While tariffs remain central to operational sustainability, evidence from Cross River State and comparable contexts shows that full cost recovery is rarely achieved in practice. Government therefore plays a critical role in sustaining services through targeted subsidies, technical support, and institutional strengthening, particularly in rural and low-income areas. Experience from the Yala WSP further highlights that the systematic underfunding of capital maintenance and support costs is the primary driver of service failure, leading to breakdowns, system collapse, and weakened service delivery over time. Addressing these gaps is essential to ensuring that WASH investments translate into sustained functionality and reliable service provision.

5.7 Costing Assumptions and Data Sources

The costing framework for this strategy is based on standardised planning assumptions, state-level data, and unit cost benchmarks derived primarily from the Yala WASH Strategic Plan (WSP). These parameters ensure consistency in estimating infrastructure requirements, lifecycle costs, and financing needs across rural and small-town contexts in Cross River State.

5.7.1 Core Planning and Modelling Assumptions

Table 14 Costing Parameters and Assumptions Table

Parameter	Value (Fixed)	Source	Application in Costing Model
Planning period	2026–2031 (5 years)	Strategy design	Defines investment horizon
Base year	2025	Strategy assumption	Constant price baseline
Currency	NGN (₦)	National standard	All costing
Population (2025)	4,901,419	State projection	Demand baseline
Growth rate	3.5%	WASH Policy	Demand projection
Population (2031)	6,025,095	Calculated	End-period demand
Rural + small-town share	79% (4,759,825)	State data	Core modelling population
LGAs covered (WASHIMS sample)	9 LGAs	WASHIMS dataset	Baseline facility estimation
LGAs total (rural + small-town)	16 LGAs	State classification	Scaling factor
Water facilities (observed)	698	WASHIMS	Baseline stock
Sanitation facilities (observed)	463	WASHIMS	Baseline stock
Scaling factor	16 / 9 = 1.78	Derived	Extrapolation multiplier
Estimated water facilities (statewide)	~1,240	Calculated	Infrastructure baseline
Estimated sanitation facilities (statewide)	~825	Calculated	Sanitation baseline
Facility functionality	44% functional	Investment Plan	Rehab modelling
Functional water facilities	~546	Calculated	Current service capacity

Non-functional facilities	~694	Calculated	Rehab requirement
Open defecation	41%	WASHNORM	Sanitation gap
Households (2025)	774,424	Calculated	Sanitation modelling
Households needing toilets	~394,000	Derived	OD population
Handpump capacity	300 people	Sector standard	Rural modelling
Solar borehole capacity	1,000 people	Yala aligned	Rural clusters

The parameters above define the baseline conditions for the costing model, including population growth, service gaps, and infrastructure benchmarks. These assumptions are used to convert service deficits into infrastructure requirements and to project investment needs over the strategy period.

5.7.2 Unit Cost Library for WASH Service Delivery

Unit costs used in this strategy are derived from the Yala WSP unit cost library, which reflects actual implementation costs within Cross River State. These costs are applied across the state with a modest adjustment to reflect intra-state variation in terrain, logistics, and market access.

Table 15 Unit Cost Library for WASH Investment Modelling

Category	Component	Technology / Item	LCC Category	Unit Cost (₦)	Unit	Source / Application
Water Supply	New infrastructure	New borehole + handpump	CapEx	1,320,000	Per facility	Yala WSP unit cost; primary rural water supply option
	Rehabilitation	Borehole + handpump rehabilitation	CapEx	660,000	Per facility	Yala WSP; used for restoring non-functional systems
	Operations	Borehole + handpump annual O&M	OpEx	104,000	Per facility/year	Yala WSP; recurring annual O&M
	Major maintenance	Handpump pump replacement	CapManEx	540,000	Per facility	Yala WSP; every 5 years
	New infrastructure	Solar motorised borehole	CapEx	44,000,000	Per scheme	Yala WSP; higher-capacity clustered service model
	Operations	Solar motorised annual O&M	OpEx	2,592,000	Per scheme/year	Yala WSP; recurring annual O&M
	Major maintenance	Solar inverter replacement	CapManEx	4,320,000	Per system	Yala WSP; every 7 years

Sanitation	Targeted household subsidy	Household latrine voucher (OBA subsidy)	CapEx	37,000	Per household	Yala WSP; materials subsidy, household contributes labour
	Household sanitation upgrade	Improved twin-pit latrine with handwashing station	CapEx	75,000	Per household	Yala strategy upper-bound planning value from sanitation market development text; use as full upgrade cost
	Service infrastructure	FSM site construction	CapEx	27,500,000	Per site	Yala WSP; relevant only for selected denser settlements where applicable
	Institutional sanitation	School WASH block (6-stance gender-separated block with HWF and MHM facility)	CapEx	5,500,000	Per block	Yala WSP; institutional WASH package for schools
	Institutional rehabilitation	PHC WASH rehabilitation package	CapMANEx	4,400,000	Per facility	Yala WSP; healthcare facility WASH minimum package
Hygiene / Behaviour Change	Community triggering	CLTS community facilitation	CapEx	50,000	Per community	Yala WSP; triggering, verification, certification
	Post-trigger support	CLTS post-triggering follow-up	ExpDS	30,000	Per community/year	Yala WSP; monthly follow-up until ODF certification
System Support	Direct support	WASHCOM direct support	ExpDS	150,000	Per WASHCOM/year	Yala WSP; retraining and

						governance support
	Direct support	LAM supervision	ExpDS	120,000	Per LAM/year	Yala WSP; field oversight and QA
	Indirect support	State sector policy support	ExpIDS	4,091,000	Per LGA/year	Yala WSP; prorated state support cost
	Indirect support	mWater platform management	ExpIDS	12,000,000	Per LGA/year	Yala WSP; prorated state platform management cost

Notes:

- All unit costs are sourced from the Yala WSP and represent context-specific implementation costs.
- A **10% variation factor** is applied in modelling to account for cost differences across LGAs.
- Household sanitation costs reflect a **market-based approach**, combining targeted subsidies (voucher model) and household investment.
- Hygiene costs are captured through **CLTS facilitation and sanitation upgrade options**, which incorporate handwashing facilities.

5.7.3 Application of Costing Framework

The costing model integrates the planning assumptions and unit cost library to estimate total investment requirements across water supply, sanitation, and hygiene services. Population service gaps are translated into infrastructure needs using defined service capacity benchmarks, while lifecycle costing ensures that capital, operational, and maintenance costs are fully accounted for.

The model is designed as a decision-support tool, allowing for scenario testing and adjustment based on financing availability, implementation capacity, and policy priorities.

6. WASH Investment Requirements

Achieving basic, sustainable WASH services across Cross River State requires a clear understanding of the scale of unmet need and the resources required to address it. This section estimates the investment required between 2026 and 2031 by linking population growth and current service gaps to practical delivery requirements. The analysis converts these gaps into water systems and household sanitation improvements using standard service assumptions. Costs are presented using a life-cycle approach, covering infrastructure development, operation, maintenance, and system support. The estimates, therefore, reflect the full cost of delivering and sustaining services, not just initial construction.

6.1 Population and Service Expansion Projections

Population growth is a key driver of WASH service demand across Cross River State over the 2026–2031 period. Based on a 2025 baseline population of 4,901,419million and an annual growth rate of 3.5 percent, the population is projected to reach approximately 6.1million by 2031. The 3.5% growth rate was validated during the co-creation workshop as the most recent active rate. Over the five-year strategy period, this yields a cumulative population increase of approximately 19%, reinforcing the need for robust investment planning Rural and small-town areas account for 79 per cent of the population and form the primary focus of service delivery planning, given their reliance on decentralised systems and the scale of existing service gaps. This population segment also serves as the core modelling base for infrastructure and investment estimation throughout the strategy.

Table 16 Projected Population and Rural–Small Town Distribution (2026–2031)

Year	Total Population	Rural + Small-Town Population (79%)
2026	5,072,969	3,872,121
2027	5,250,523	4,007,645
2028	5,34,291	4,293,090
2029	5,624,491	4,443,348
2030	5,821,348	4,598,865
2031	6,025,095	4,759,825

Notes

- Population projections assume an annual growth rate of 3.5 percent.
- Rural and small-town populations are estimated at **79 percent of total population**, reflecting the state's settlement structure.
- This population segment forms the core demand base for WASH service expansion.

Water Infrastructure Restoration and Service Expansion Context

The WASH Information Management System (WASHIMS) provides the baseline infrastructure dataset used for planning. Data from 9 LGAs was scaled to represent 16 rural and small-town LGAs using a factor of 1.78, resulting in an estimated 1,240 water facilities statewide.

Functionality data indicates that only 37% percent of facilities are functional, corresponding to approximately 546 functional systems and 694 non-functional systems. Given an average service capacity of 300 people per handpump-equivalent system, this level of functionality represents a significant loss in effective service coverage and reinforces the need to prioritise rehabilitation alongside new infrastructure development.

Given the scale of non-functional infrastructure, rehabilitation represents the most immediate and cost-effective pathway to restoring service access before large-scale expansion.

Table 17 Water Infrastructure Restoration and Expansion Framework

Investment Stream	Basis	Planning Assumption	Planning Implication
Rehabilitation	~694 non-functional facilities	Backlog addressed progressively over the strategy period	Rapid recovery of existing service coverage
Planned maintenance (CapManEx)	Functional facilities (~546)	Major component maintenance on a 5-year cycle	Sustained functionality and reduced future breakdown
New systems and upgrades	Population growth and service gaps	New system development and gradual transition to solar-powered systems in higher-demand rural clusters	Expansion of service coverage and improved service reliability

Notes:

- Rehabilitation protects past investments and restores access at lower cost than new construction.
- Planned maintenance prevents asset deterioration and reduces lifecycle costs.
- Solar-powered systems are prioritised in larger settlements to improve reliability and climate resilience.

6.2 Water Service Investment Requirements

Water supply challenges in Cross River State are driven less by nominal access levels and more by low functionality and weak service reliability. While available data suggests that between 49 percent and 69 percent of the population has access to basic water services, functionality-adjusted estimates indicate that effective coverage is significantly lower. With only 44 percent of facilities operational, reliable service coverage is conservatively estimated at approximately 30 percent.

Basic water service is defined in line with state guidelines as access to at least 30 litres per person per day, from a source within 250 metres, with a collection time under 30 minutes and an affordable cost threshold. Current service levels fall short of these standards for a large share of the population, with many households relying on rivers, streams, and unprotected sources, resulting in unreliable and unsafe access.

Table 18 Water Service Gap and Target Coverage (2031)

Indicator	Value
Rural + small-town population (2031)	4,759,825

Estimated effective service coverage	~30%
Estimated population currently served	~1,427,948
Population without reliable basic water service	~3,333,877
Target service level	Universal basic access

Notes

- Effective coverage reflects functionality-adjusted service levels rather than reported access.
- Estimates align with WASHNORM and State Investment Plan evidence.

Closing this gap requires a combination of restoring existing infrastructure, expanding service coverage, and improving service levels in higher-demand settlements. The current infrastructure base is dominated by hand pump boreholes (75.5 per cent), with motorised systems accounting for 23.4 percent, reflecting a predominantly rural service model.

Settlement patterns further inform technology selection. Approximately 36.6 percent of communities are dispersed, favouring hand pump systems, while 45.5 percent are nucleated, supporting the use of solar-powered systems. Linear settlements (17.9 percent) require a combination of both approaches. While this distribution suggests a higher potential share of solar systems over time, the strategy adopts a phased transition approach, aligned with current infrastructure realities and implementation capacity.

Table 19 Water Infrastructure Requirements to Close Service Gap

Technology	Population Allocation	Unit Capacity	Systems Required
Hand pump boreholes (75%)	2,500,407	300	8,335
Solar-powered systems (25%)	833,470	1,000	834
Total (Service Gap Requirement)	3,333,877	—	9,169 systems

Notes:

- This represents **infrastructure required to close the service gap**, not total system stock.
- Technology mix reflects current infrastructure distribution and phased transition considerations.
- Solar systems are prioritised in higher-density settlements to improve reliability and reduce lifecycle costs.

Existing infrastructure plays a central role in meeting demand. Of the estimated 1,240 systems statewide, approximately 694 are non-functional and require rehabilitation. Restoring these

systems provides a rapid and cost-effective pathway to recovering service coverage and reduces the need for entirely new construction.

Given this, rehabilitation is prioritised as the first investment step, followed by expansion and targeted system upgrades.

Table 20 Rehabilitation, Maintenance, and Upgrade Requirements

Category	Basis	Requirement
Rehabilitation	Non-functional systems (~56% of total stock)	~694 systems
Planned maintenance (CapManEx)	Functional systems (~546)	~20% serviced annually
System upgrades	Functional handpump systems in higher-demand settlements	~2% converted annually to solar systems

Notes:

- Rehabilitation restores lost service capacity and protects previous investments.
- Planned maintenance ensures sustained functionality and prevents future system failure.
- System upgrades reflect a gradual transition toward more reliable and climate-resilient service delivery models, particularly in nucleated settlements.

Annual Water Infrastructure Targets

Implementation is phased to reflect infrastructure requirements, implementation capacity, and the transition towards more reliable solar-powered systems in higher-demand rural settlements.

The baseline infrastructure requirement remains aligned with the service gap estimates presented in Table 19, including approximately 8,335 handpump systems and 834 solar-powered systems required to close the core access gap. To improve long-term service reliability and gradually reduce dependence on handpump systems in higher-demand settlements, the strategy introduces an additional solar transition factor equivalent to approximately 2 percent of total service gap systems annually.

This approach supports the expansion of solar-powered systems in nucleated settlements while maintaining the role of handpump systems in dispersed rural communities.

Table 21 Annual Water Infrastructure Targets (2026–2031)

Year	Solar Systems*	Handpump Systems	Rehabilitation
2026	183	1,000	117

2027	183	1,150	117
2028	183	1,250	117
2029	183	1,300	117
2030	183	1,300	113
2031	183	1,256	113
Total	**1098**	**8,335**	**694**

Notes:

- *Handpump system targets remain aligned with the baseline service gap requirement of approximately 8,335 systems, while rehabilitation targets address the estimated stock of non-functional systems.*
- *Solar system targets combine the baseline solar requirement with an additional phased annual solar transition factor equivalent to approximately 2 percent of total service gap systems annually.*
- *Solar-powered systems are prioritised in higher-demand and nucleated settlements to improve reliability, climate resilience, and long-term service sustainability.*

6.3 Sanitation and Hygiene Investment Requirements

Sanitation and hygiene investment needs in Cross River State are driven by three overlapping gaps: open defecation, unsafe or unimproved household sanitation, and weak household handwashing practice. Open defecation affects about 41 percent of the population, while safely managed sanitation remains below 10 percent. Reported rural basic sanitation access of about 58 percent masks poor service quality, with many households still relying on unimproved pits and other unsafe arrangements. At the same time, only 32 percent of households have access to a basic handwashing facility with soap and water, confirming that hygiene remains the weakest component of service delivery.

The investment response therefore needs to cover both hardware and non-hardware requirements. Hardware is represented by the transition to improved household sanitation, while hygiene is financed through the combination of latrine-linked handwashing provision and CLTS/SBCC-driven behaviour change support, rather than as a separate standalone hardware programme. This reflects the current service model in Cross River, where hygiene promotion is designed to accompany sanitation uptake and post-ODF sustainability.

Table 22 Total Sanitation and Hygiene Need (Backlog + Growth-Adjusted Planning Requirement)

Indicator	2025 Backlog	Additional Demand (2026–2031)	Total Planning Requirement
Households practising open defecation	317,514	72,792	390,306
Households requiring sanitation upgrade	242,410	55,573	297,983

Total households requiring improved sanitation	559,924	128,365	688,289
Households lacking basic handwashing facility	526,608	120,728	647,336

Notes:

- The **688,289-household sanitation requirement** combines the existing backlog and additional demand arising from household growth over the strategy period.
- The **647,336-household hygiene gap** is treated as a sanitation-linked programme requirement, not a separate hardware investment line.
- This approach avoids double counting, as improved sanitation investments are assumed to include a functional handwashing facility.
- Service deficit ratios are assumed constant due to limited forward projections; actual outcomes may vary with programme performance.

Converting this demand into an implementable programme requires a community-level planning proxy for behaviour change support. For modelling purposes, an average rural and small-town community size of 150 households is used to translate household sanitation demand into CLTS and follow-up requirements. This is a planning proxy for financing purposes and can be refined later with LGA-level operational data.

Table 23 Translation of Total Need into Programme Units

Planning Metric	Basis	Result
Total households requiring improved sanitation	Backlog + growth-adjusted demand	688,289
Average households per community	Planning proxy	150
Estimated communities requiring CLTS-linked intervention	688,289 ÷ 150	4,589
planning total	Strategy planning unit	**4,589 communities**

Notes:

- The community estimate is used to size triggering, follow-up, and hygiene behaviour-change support, not to imply that every community has identical population or infrastructure conditions.
- The planning proxy is appropriate for a state financing model because the objective is to estimate programme scale and cost drivers, not produce a micro-plan for each LGA.

Meeting the total sanitation and hygiene requirement over 2026–2031 will require phased implementation. A gradual scale-up is more realistic than a flat annual target because sanitation uptake depends on community mobilisation, local supply chains, household affordability, and institutional capacity for verification and follow-up. The rollout therefore starts lower, rises through the middle years, and stabilises towards the end of the strategy period.

Table 24 Annual Household Sanitation Rollout Targets (2026–2031)

Year	Households Upgraded to Improved Sanitation with Handwashing	Cumulative Active Improved Sanitation Stock
2026	85,000	85,000
2027	105,000	190,000
2028	120,000	310,000
2029	130,000	440,000
2030	120,000	560,000
2031	128,289	688,289
Total	688,289	—

Notes:

- Annual rollout totals sum exactly to the 688,289--household requirement.
- The cumulative active stock is the direct basis for calculating sanitation CapEx, OpEx, and CapManEx in the model.
- A phased rollout is used rather than an even annual distribution to reflect progressive strengthening of sanitation markets, community mobilisation systems, and implementation capacity.

The hygiene and behaviour-change component are costed through **CLTS triggering and structured post-trigger follow-up**. To avoid arbitrary numbers, annual community targets are derived directly from the annual household rollout using the same **150-household planning proxy**. Follow-up support is modelled on a rolling basis, with each year's follow-up requirement covering communities triggered in the **previous year and the current year**, reflecting the need for sustained reinforcement to reduce slippage.

Table 25 : Annual Hygiene and Behaviour-Change Programme Targets (2026–2031)

Year	Households Upgraded	CLTS Triggered Communities*	CLTS Follow-Up Communities**
2026	85,000	567	567
2027	105,000	700	1,267
2028	120,000	800	1,500
2029	130,000	867	1,667
2030	120,000	800	1,667
2031	128,289	855	1,655
Total programme units	**688,289**	**4,589**	**—**

Notes:

- *CLTS Triggered Communities = annual households upgraded ÷ 150 households per community, rounded to the nearest whole community.*

- CLTS Follow-Up Communities are modelled as the current year's triggered communities plus the previous year's triggered communities, reflecting the need for sustained post-trigger support and slippage prevention.
- These programme units are the direct basis for CLTS triggering cost and CLTS follow-up cost in the hygiene behaviour-change model.

In cost terms, the sanitation and hygiene model therefore works through four linked drivers:

- **Sanitation CapEx**: annual household upgrades to improved twin-pit latrines with handwashing
- **Sanitation OpEx**: support and sustainment costs applied to the cumulative active improved sanitation stock.
- **Sanitation CapManEx**: lifecycle maintenance or renewal requirements applied to the cumulative active improved sanitation stock.
- **Hygiene / behaviour-change costs**: annual CLTS triggering and follow-up programme units.

This structure ensures that sanitation and hygiene financing is not reduced to one-off toilet construction. It reflects the actual service challenge in Cross River State: moving households from unsafe sanitation and poor hygiene conditions to durable, sustained, and behaviourally reinforced service outcomes.

6.4 Institutional WASH Investment Requirements

Institutional WASH investment requirements are derived from the deficits identified in Section 4.5 using findings from the 2020 PEWASH Baseline Survey. The assessment estimated that approximately 1,250–1,300 public places were assessed across rural and small-town areas, with significant deficits in water, sanitation, and hygiene access. Approximately 61 percent of public places lacked water access, 55 percent lacked sanitation facilities, and 87 percent lacked hygiene facilities.

Given the scale of the deficit, the strategy adopts a phased institutional WASH improvement approach over the 2026–2031 period. For planning purposes, schools, health centres, markets, motor parks, and related public facilities are treated collectively as public institutional WASH facilities. Rather than attempting full statewide coverage within the strategy period, the model prioritises progressive improvement of approximately 50 percent of underserved public facilities over six years. This results in a planning target of approximately 675 public facilities to receive institutional WASH upgrades during the implementation period.

The investment package combines basic institutional sanitation infrastructure, handwashing facilities, rehabilitation or improvement of water access, and related hygiene support infrastructure. Costs are based on the institutional WASH unit cost assumptions derived from the Yala WSP model, including school WASH and healthcare facility rehabilitation packages. A blended institutional WASH package cost of ₦5 million per facility was adopted as the 2025

base-year planning value. In line with the broader investment model, annual costs were adjusted using a 10 percent annual inflation factor.

Table 26 Annual Institutional WASH Investment Cost

Year	Public Facilities Improved	Adjusted Unit Cost (₦)	Total Cost (₦)
2026	50	5,000,000	250,000,000
2027	75	5,500,000	412,500,000
2028	100	6,050,000	605,000,000
2029	125	6,655,000	831,875,000
2030	150	7,320,500	1,098,075,000
2031	175	8,052,550	1,409,196,250
Total	**675**	—	**₦4,606,646,250**

The phased investment approach reflects implementation capacity realities while progressively improving WASH conditions across underserved public facilities in rural and small-town areas. These investments are intended to strengthen public health, learning environments, hygiene service delivery, and long-term WASH system sustainability.

6.4 Total Investment Requirements

The total WASH investment requirement represents the combined cost of expanding and sustaining water supply, sanitation, and hygiene services across Cross River State over the 2026–2031 strategy period. These costs include both infrastructure investments and the system support required to ensure long-term functionality and service delivery.

The investment requirement is structured across three components:

- Direct Costs: Infrastructure, service delivery, and behaviour change investments.
- Direct Support Costs (ExpDS): Operational support to sustain services.
- Indirect Support Costs (ExpIDS): Sector-wide systems, governance, and regulation

6.4.1 Consolidated Investment Requirements (2026–2031)

Table 27 Consolidated Annual WASH Investment Requirement (₦) 2026 - 2031

Metric	2026	2027	2028	2029	2030	2031
Direct Costs						
Water CapEx	₦11,546,304,000	₦13,205,068,800	₦14,993,672,602	₦16,907,150,819	₦18,936,008,918	₦21,082,226,404
Water OpEx	₦797,458,816	₦1,729,480,417	₦2,889,776,172	₦4,312,638,921	₦6,034,569,505	₦8,097,725,995
Water CapManEx	₦102,343,254	₦121,517,384	₦144,153,373	₦170,659,083	₦196,315,766	₦231,198,191
Sanitation CapEx	₦7,854,000,000	₦10,866,240,000	₦13,908,787,200	₦16,875,995,136	₦17,447,182,664	₦20,890,628,423
Sanitation/ Hygiene(Opex)	₦55,883,520	₦100,742,118	₦131,360,768	₦161,594,144	₦174,491,212	₦200,619,338
Institutional WASH Cost	₦250,000,000	₦412,500,000	₦605,000,000	₦831,875,000	₦1,098,075,000	₦1,409,196,250

Total Direct Cost	**₦20,605,989,590**	**₦26,435,548,719**	**₦32,672,750,115**	**₦39,259,913,104**	**₦43,886,643,065**	**₦51,911,594,601**
Indirect Cost						
ExpDS (5% of Direct Cost)	₦1,030,299,479	₦1,321,777,436	₦1,633,637,506	₦1,962,995,655	₦2,194,332,153	₦2,595,579,730
ExpIDS (3% of Direct Cost)	₦618,179,688	₦793,066,462	₦980,182,503	₦1,177,797,393	₦1,316,599,292	₦1,557,347,838
Grand Total	**₦22,254,468,757**	**₦28,550,392,617**	**₦35,286,570,124**	**₦42,400,706,152**	**₦47,397,574,510**	**₦56,064,522,169**

- The investment profile is strongly capital-driven, reflecting the scale of infrastructure expansion, rehabilitation, and service improvement required across water supply, sanitation, and institutional WASH systems.
- Water supply accounts for the largest share of investment due to infrastructure expansion needs, rehabilitation of non-functional systems, and the phased transition towards solar-powered systems in higher-demand settlements.
- Sanitation investments focus on household-level sanitation improvement through CLTS-linked and market-based approaches, while sanitation and hygiene operational costs capture behaviour change, follow-up, and hygiene promotion activities.
- Institutional WASH investments focus primarily on sanitation, hygiene, and basic service improvements across schools, health facilities, markets, motor parks, and other public facilities in rural and small-town areas.
- ExpDS and ExpIDS ensure that infrastructure investments are supported by technical supervision, coordination, governance, monitoring, and broader sector system strengthening arrangements.

6.4.2 Aggregate Cost Structure and Trends

Table 28 Cost Breakdown by Category (Including Support Costs)

Cost Category	6-Year Total (₦)	Share of Total Investment
Water CapEx	₦95,670,431,543	41.7%
Water OpEx	₦26,849,649,826	10.3%
Water CapManEx	₦966,187,051	0.4%
Sanitation CapEx	₦87,842,833,423	37.9%
Sanitation / Hygiene OpEx	₦824,691,100	0.4%
Institutional WASH Cost	₦4,606,646,250	2.0%
ExpDS (5%)	₦10,738,621,959	4.6%
ExpIDS (3%)	₦6,443,173,176	2.8%
Total Investment Requirement	**₦231,954,234,328**	**100%**

Notes

- Water supply and sanitation account for the largest share of investment requirements, together representing nearly 80% of total costs due to the scale of infrastructure expansion, rehabilitation, and household sanitation improvement required across rural and small-town areas.

- Institutional WASH and sector support costs remain comparatively smaller but strategically important, supporting public facility improvements, sector coordination, monitoring, governance, and long-term service sustainability.

Table 29 Capital vs Recurrent Cost Structure

Cost Type	6-Year Total (₦)	Share
Total CapEx (Water + Sanitation + Institutional WASH)	₦188,119,911,216	81.1%
Total OpEx (Water + Sanitation/Hygiene)	₦27,674,340,926	11.9%
Total CapManEx (Water only)	₦966,187,051	0.4%
Support Costs (ExpDS + ExpIDS)	₦17,181,795,135	7.4%
Total Investment Requirement	**₦231,954,234,328**	**100%**

Table 30 Subsector Comparison

Subsector	6-Year Total (₦)	Share
Water Supply	₦123,486,268,420	53.2%
Sanitation & Hygiene*	₦91,286,170,773	39.4%
Support Costs	₦17,181,795,135	7.4%
Total Investment Requirement	**₦231,954,234,328**	**100%**

***Include household sanitation, sanitation/hygiene operational costs, and institutional WASH investments.*

Table 31 Estimated Rural and Small-Town WASH Investment Requirement by Settlement Type

Settlement Category	Share within Rural & Small-Town Envelope	Estimated Investment Requirement (₦)
Rural Settlements	67%	₦155,360,430,875
Small-Town Settlements	33%	₦76,593,803,453
Total Rural & Small-Town Investment Requirement	**100%**	**₦231,954,234,328**

Note: The ₦231.95bn total investment requirement applies only to rural and small-town areas. The split is derived by normalising the rural population share of 53% and small-town share of 26% within the combined 79% rural and small-town population base.

6.4.3 Six-Year Investment Requirement

Table 32 Annual Average Total Investment Requirement (2026–2031)

Component	Amount
Six-Year Direct Cost	₦214.77B
Six-Year ExpDS	₦10.74B

Six-Year ExpIDS	₦6.44B
Total Investment Requirement	**₦231.95B**
Annual Average Investment	**₦38.66B**

The total WASH investment requirement for rural and small-town areas in Cross River State over the 2026–2031 strategy period is estimated at approximately ₦231.95 billion, with an average annual investment requirement of approximately ₦38.7 billion.

This investment requirement reflects the full cost of:

- expanding and rehabilitating rural water supply infrastructure
- improving household and institutional sanitation services
- supporting sanitation and hygiene behaviour change interventions, including CLTS.
- sustaining water infrastructure functionality through operations and maintenance
- strengthening sector coordination, monitoring, governance, and broader WASH system sustainability arrangements.

7. Climate-Resilient WASH Financing Framework

7.1 Climate Risks Affecting Water and Sanitation Systems in Cross River

Cross River State is experiencing observable climatic shifts characterised by declining average rainfall, increasing temperatures, and rising variability in rainfall patterns. These changes are expected to reduce groundwater recharge, increase the frequency of extreme weather events, and place growing stress on water and sanitation systems across the state.

Given the state's diverse ecological zones, climate risks manifest differently across coastal, forest, and upland areas, but collectively undermine service reliability, infrastructure integrity, and public health outcomes.

Table 33 Climate Risks and WASH Implications

Climate Risk	Geographic Exposure	Water Systems Impact	Sanitation Impact	Hygiene & Public Health Impact
Flooding and extreme rainfall	Coastal and southern zones	Damage to boreholes, contamination of water sources	Latrine flooding, collapse, faecal sludge overflow	Spread of cholera and diarrhoeal diseases
Rainfall variability and drought	Central and northern uplands	Reduced groundwater recharge, seasonal borehole failure	Increased reliance on unsafe or unimproved sanitation	Reduced water availability for hygiene practices
Erosion and catchment degradation	Statewide (high in upland areas)	Sedimentation of water sources, reduced yields	Damage to sanitation structures and	Indirect health risks from degraded environments

			containment systems	
Surface water contamination	Flood-prone and dense settlements	Poor raw water quality, increased treatment needs	Contamination from open defecation and failed systems	Increased exposure to waterborne diseases
Poor drainage and stagnant water	Rural and small-town areas	Standing water around water points	Poor wastewater management around sanitation facilities	Vector breeding (malaria), poor hygiene conditions

These risks demonstrate that both water supply and sanitation systems in Cross River State are highly exposed to climate variability. Without climate-responsive design and management, infrastructure failure, contamination risks, and public health impacts will increase, leading to higher lifecycle costs and reduced service sustainability.

7.2 Implications of Climate Change for WASH Service Delivery and Costs

Climate-related risks in Cross River State fundamentally alter how WASH services perform and how they must be financed. Rather than being one-off shocks, these risks create systemic changes in service reliability, asset durability, and cost structures across both water and sanitation systems.

The most significant implication is a shift from capital-focused investments towards higher lifecycle costs, as infrastructure requires more frequent maintenance, rehabilitation, and adaptation to remain functional under changing climatic conditions.

Table 34 System-Level Implications for WASH Services

System Effect	What Changes in Practice	Financing Implication
Reduced service reliability	Seasonal failure of water points and sanitation systems becomes more common	Need for backup systems and redundancy investments
Shortened asset lifespan	Infrastructure reaches failure earlier than design expectations	Increased CapManEx (more frequent replacement cycles)
Higher operational complexity	More monitoring, repairs, and adaptive management required	Increased OpEx (maintenance, supervision, repairs)
Increased cost of service delivery	More inputs required to deliver the same level of service	Higher unit cost per beneficiary/service
Greater need for resilient design	Standard designs become insufficient in high-risk areas	Increased CapEx for upgraded infrastructure
Elevated public health risk	Service failure leads to rapid health impacts	Increased need for hygiene and behaviour change investments

Implications for the WASH Financing Model

These system-level effects indicate that climate change will not only increase total investment requirements but will also **change the structure of financing needs** across the WASH sector:

- A greater share of resources must be allocated to **operation and maintenance**, not just new infrastructure.
- **Capital maintenance (CapManEx)** will become a critical cost driver due to accelerated asset degradation.
- Investment planning must incorporate **redundancy and risk buffering**, particularly in high-exposure areas.

As a result, financing approaches must shift from a "build-and-expand" model to a lifecycle-based service delivery model that ensures infrastructure remains functional under climate stress.

7.3 Climate-Responsive Infrastructure and Investment Planning

Climate resilience in Cross River State's WASH sector requires a shift from standard infrastructure approaches towards risk-informed design and investment planning. Rather than treating resilience as an add-on, climate considerations must be embedded directly into how infrastructure is designed, costed, prioritised, and managed across different service contexts.

In practice, this involves adapting infrastructure and service delivery approaches to local risk conditions, while ensuring that investment decisions reflect variations in climate exposure across LGAs. This results in differentiated investment needs, where high-risk areas require more robust designs, earlier intervention, and higher lifecycle cost provisions.

Table 35 Climate-Responsive Infrastructure Measures

Intervention Area	Climate-Responsive Measure	Financing Implication
Water supply	Elevated platforms, deeper boreholes, source protection, rainwater harvesting	Increased CapEx, reduced long-term failure risk
Sanitation	Flood-resistant latrines, raised slabs, reinforced containment systems	Higher CapEx, reduced reconstruction costs
Small-town systems	Diversified water sources, storage systems	Increased upfront cost, improved service reliability
O&M systems	Preventive maintenance, routine inspections, and rapid repair systems	Increased OpEx, lower CapManEx over time

Table 36 Integrating Climate into Investment Planning

Planning Element	Climate Integration
Costing	Include resilience design costs in CapEx estimates and adjust lifecycle cost assumptions
Prioritisation	Allocate resources based on LGA-level climate risk and service vulnerability

Sequencing	Phase investments to address high-risk and high-failure areas first
Asset planning	Adjust asset lifespan assumptions and increase provision for CapManEx
Service strategy	Incorporate redundancy and alternative service options in high-risk areas

Implications for Financing Strategy

Integrating climate resilience into infrastructure design and investment planning will increase upfront costs in high-risk areas but reduce long-term expenditure associated with system failure, reconstruction, and service disruption. As a result, WASH financing in Cross River State must adopt a lifecycle-based approach, where investment decisions reflect not only initial capital requirements but also the cost of sustaining services under changing climatic conditions.

8. Financing Gap Analysis and Investment Scenarios

8.1 Current Financing Envelope

The current financing envelope for WASH in Cross River State provides the reference point for assessing investment needs and financing gaps under this strategy. Based on the analysis in Section 3, the indicative annual financing envelope for the sector is estimated at approximately ₦6.23 billion, combining public financing flows with indicative household and community contributions.

Public financing remains the dominant source of sector funding. Approved State Government and Local Government allocations account for approximately ₦4.48 billion annually. Of this total, the State Government contributes about ₦2.7 billion or 43 percent, while Local Governments contribute approximately ₦1.78 billion or 29 percent.

In addition to public financing, households and communities also contribute significantly to WASH financing, particularly through household sanitation investments, community-level maintenance, tariff payments, and small-scale rural water access improvements. Based on indicative assumptions derived from projected rural and small-town population estimates, CLTS implementation experience, and national WASH Accounts financing patterns, household and community contributions are estimated at approximately ₦1.75 billion annually, representing about 28 percent of the current financing envelope.

This financing envelope should, however, be interpreted primarily as nominal financing rather than effective financing. Earlier analysis showed that actual expenditure remains significantly below approved allocations due to weak budget execution, procurement delays, and limited absorptive capacity. Available evidence suggests that effective annual public spending may remain below ₦1 billion, indicating that the resources that ultimately translate into sustained service delivery are substantially lower than nominal financing levels.

The structure of current financing also presents major sustainability constraints. Public financing remains heavily skewed towards capital expenditure, while financing for operations, maintenance, and asset replacement remains limited. At LGA level in particular, allocations remain concentrated on infrastructure development with limited provision for recurrent service delivery costs and lifecycle maintenance.

Although household financing plays an important complementary role, particularly within sanitation and minor maintenance activities, these contributions are largely informal and insufficient to close existing infrastructure and service delivery gaps. As a result, the current financing envelope provides an important benchmark for financing gap analysis but does not yet represent a fully functional lifecycle financing system capable of delivering sustainable WASH services at scale.

Table 37 Indicative Current WASH Financing Envelope

Source	Estimated Annual Allocation (₦)	Share (%)
State Government	2,700,000,000	43%
Local Governments	1,780,000,000	29%
Household and Community Contributions	1,750,000,000	28%
Total Indicative Financing Envelope	**6,230,000,000**	**100%**

Notes:

- Public financing figures represent nominal allocations based on approved budgets rather than actual expenditure.
- Household and community contribution estimates are indicative planning assumptions derived from sanitation investment patterns, CLTS implementation experience, and national WASH Accounts financing trends.
- Effective financing available for sustained service delivery is likely to remain substantially lower due to weak budget execution and limited lifecycle financing arrangements.
- The current financing structure remains heavily capital-focused, with limited financing for operations, maintenance, and asset replacement.

8.2 Investment Requirements and Financing Gap

The investment requirements for achieving universal and sustainable WASH services in rural and small-town areas of Cross River State are based on the lifecycle-informed costing framework presented in Section 6. Over the 2026–2031 strategy period, the total investment requirement is estimated at approximately ₦231.95 billion, covering infrastructure development, institutional WASH improvements, service delivery, and system strengthening.

This total comprises:

- Direct Costs (service delivery and infrastructure): ₦214.77 billion
- Direct Support Costs (ExpDS): ₦10.74 billion
- Indirect Support Costs (ExpIDS): ₦6.44 billion

On an annual basis, this translates to an average investment requirement of approximately ₦38.66 billion per year.

When compared with the current indicative financing envelope of approximately ₦6.23 billion annually, including public financing and estimated household/community contributions, the scale of the financing challenge becomes evident. Based on this comparison, the WASH sector faces an estimated annual financing gap of approximately ₦32.43 billion, representing a shortfall of about 84 percent of required annual investment.

However, the effective financing gap is likely to be substantially larger in practice. Earlier analysis showed that actual public expenditure remains significantly below approved allocations due to weak budget execution, procurement delays, and limited absorptive capacity. As a result, the resources effectively translating into sustained service delivery remain far below the nominal financing envelope reflected in this analysis.

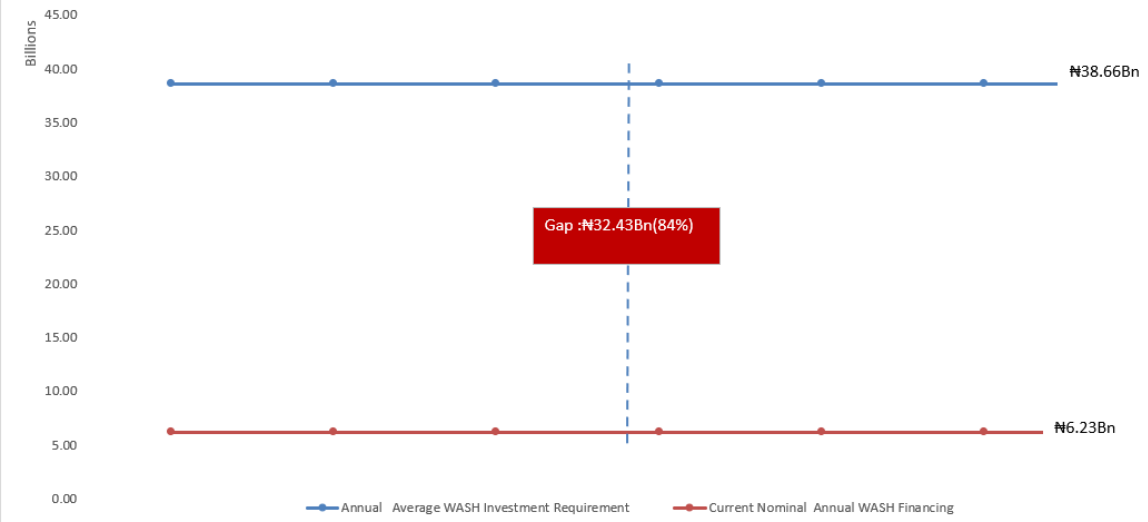

Figure 6 Investment Requirement and Financing Gap

While these estimates provide a robust baseline, they should be interpreted as minimum investment requirements. The costing reflects the resources required to achieve basic service coverage and sustain functionality under standard conditions. However, as highlighted in Section 7, climate variability introduces additional cost pressures that are not fully captured in baseline estimates.

In particular, high-risk LGAs will require:

- More resilient infrastructure designs
- Higher upfront capital investment
- Increased maintenance and asset replacement costs

As a result, actual investment needs in these areas are likely to exceed baseline estimates, reinforcing the need for a climate-responsive and risk-informed investment approach.

Overall, the analysis highlights a substantial financing gap driven by both the scale of required investment and the limited and inefficient current financing envelope. Closing this gap will require a combination of increased resource mobilisation, improved expenditure efficiency, and stronger alignment of financing with lifecycle service delivery requirements.

8.3 Financing Gap by Cost Category

The financing gap in Cross River State is not only a function of insufficient total resources but also reflects a **systemic imbalance in how available financing is structured and allocated across the WASH service chain**. A comparison between the required lifecycle cost structure (Section 6) and current financing patterns (Section 3) shows that while capital investment is

prioritised, the components required to sustain services over time remain significantly underfunded.

Table 38 Required vs Current Financing Structure by Cost Category

Cost Category	Required Share	Current Financing Pattern	Gap Implication
CapEx (Water + Sanitation)	~80%	Dominates financing, typically exceeding 70–80% of allocations	Expansion-focused financing not matched by sustainability investments
OpEx (Water + Hygiene)	~12%	Limited and inconsistent	Weak support for routine service delivery and system functionality
CapManEx (Water)	~0.3%	Largely absent	No systematic provision for asset rehabilitation and replacement
ExpDS	~4.6%	Minimal	Weak supervision, technical support, and service coordination
ExpIDS	~2.8%	Minimal	Underinvestment in sector governance, regulation, and planning

Interpretation of Structural Financing Gaps

The comparison highlights that the financing gap is not only quantitative but **structural**, with current financing patterns misaligned with the requirements for sustainable service delivery.

- **Capital Expenditure (CapEx):** Financing is heavily concentrated on infrastructure development, often accounting for more than 70–80% of sector allocations at both state and local government levels. While this reflects the need to expand access, it reinforces a "build-first" approach that is not supported by corresponding investments in system sustainability. Climate-resilient infrastructure requirements will further increase capital costs, particularly in flood-prone and drought-affected areas.
- **Operating Expenditure (OpEx):** Operational financing remains consistently underfunded. Limited provision for routine maintenance, energy, and system management constrains service reliability and contributes to declining functionality of water systems over time. This is consistent with earlier findings on weak tariff systems and low-cost recovery across the sector.
- **Capital Maintenance Expenditure (CapManEx):** CapManEx is almost entirely absent from current financing systems, representing a fundamental gap in lifecycle planning. Infrastructure is financed as a one-off capital investment, with little or no provision for rehabilitation or replacement. As climate variability accelerates asset wear and increases failure rates, this gap is expected to become more pronounced.
- **Support Costs (ExpDS and ExpIDS):** Financing for supervision, coordination, monitoring, and sector governance remains minimal. Weak investment in these areas limits implementation capacity and reduces the effectiveness of both capital and operational expenditures. This contributes to low budget execution rates and fragmented sector performance.

The core financing challenge is not only the scale of resources required, but the imbalance between capital investment and the financing needed to sustain services over time. As currently structured, the financing system prioritises infrastructure expansion but does not provide the resources required to maintain functionality, resulting in a high risk that investments will not translate into durable service delivery outcomes.

8.4 Annual Financing Gap (2026–2031)

The annual financing gap reflects the difference between required investment and available financing over the strategy period. Based on the lifecycle cost estimates in Section 6 and the current nominal financing envelope, the gap persists across all years, with required investment significantly exceeding available resources.

Table 39 Annual Investment Requirement vs Financing (₦)

Year	Required Investment	Available Financing	Financing Gap
2026	₦22,254,468,757	₦6,230,000,000	₦16,024,468,757
2027	₦28,550,392,617	₦6,230,000,000	₦22,320,392,617
2028	₦35,286,570,124	₦6,230,000,000	₦29,056,570,124
2029	₦42,400,706,152	₦6,230,000,000	₦36,170,706,152
2030	₦47,397,574,510	₦6,230,000,000	₦41,167,574,510
2031	₦56,064,522,169	₦6,230,000,000	₦49,834,522,169

The financing gap increases steadily over the strategy period, reflecting both the scale of service expansion and the cumulative cost of sustaining WASH systems.

- **Front-loaded investment pressure:** Investment requirements rise sharply from 2026 to 2028 as the state scales up infrastructure development to address existing service deficits and expand access.
- **Acceleration phase:** Between 2028 and 2030, investment needs continue to grow as service coverage expands and systems become more complex, requiring higher operational inputs.
- **Transition to sustainability:** By 2031, the financing profile reflects a system that is not only expanding but also requiring sustained investment in operations, maintenance, and system management.

Despite this increasing demand, the current financing envelope remains relatively flat, resulting in a widening gap over time.

8.5 Investment Scenarios for Decision-Making

The financing gap analysis indicates that achieving universal and sustainable WASH services in rural and small-town areas of Cross River State will require investment levels significantly higher than current financing flows. Based on the lifecycle costing analysis, the sector requires an estimated ₦231.95 billion over the 2026–2031 strategy period, equivalent to an average annual investment requirement of approximately ₦38.66 billion, compared to the current indicative financing envelope of approximately ₦6.23 billion annually.

Given this constraint, three investment scenarios were developed to provide realistic and evidence-based pathways for sector development. The scenarios are derived directly from the lifecycle costing framework and reflect different levels of ambition, financing availability, infrastructure expansion, and system transformation.

Table 40 Summary of WASH Investment Scenarios

Scenario	Strategic Focus	Estimated Investment (2026–2031)	Annual Requirement	Key Characteristics
🛠 **Scenario A: Stabilisation and Service Preservation**	Protect existing systems and prevent service decline	~₦95–100B	~₦16–17B	Focus on rehabilitation, O&M, institutional WASH, CLTS, and limited expansion
🚰 **Scenario B: Basic Universal Access (Baseline)**	Achieve universal access to basic WASH services	₦231.95B	₦38.66B	Full lifecycle cost for basic rural and small-town service delivery
🌍 **Scenario C: Climate-Responsive and Safely Managed Transition**	Improve resilience and service quality	~₦280–290B	~₦47–48B	Climate-resilient infrastructure, expanded solar systems, and stronger system management

8.5.1 Scenario Derivation from Cost Structure

The scenarios are derived from the lifecycle cost structure presented in Section 6, with adjustments to reflect different levels of infrastructure expansion and service ambition.

Scenario A: Stabilisation

This scenario prioritises sustaining existing services rather than expanding access.

Cost Component	Baseline	Scenario A Assumption	Estimated Cost
CapEx	₦188.12B	25% retained	~₦47.0B
OpEx	₦27.67B	100% retained	₦27.67B
CapManEx	₦0.97B	100% retained	₦0.97B
Support Costs	₦17.18B	100% retained	₦17.18B
Total	—	—	**~₦92–95B**

This reflects the minimum investment required to: restore non-functional infrastructure; sustain existing water systems continue sanitation and hygiene promotion (CLTS) and prevent further service deterioration.

Scenario B: Basic Universal Access
This scenario represents the baseline lifecycle investment requirement for achieving universal access to basic WASH services across rural and small-town areas.

The total estimated investment requirement is approximately **₦231.95 billion** over the 2026–2031 period. This includes:

- Water infrastructure expansion and rehabilitation
- Household and institutional sanitation improvements
- Operations and maintenance costs
- Sanitation and hygiene promotion
- Sector coordination and system strengthening costs.

Scenario C: Climate-Responsive and Safely Managed Transition
This scenario builds on the baseline by incorporating:

- Climate-resilient infrastructure standards
- Expanded solar-powered systems.
- Improved service reliability
- Stronger monitoring and asset management systems
- Enhanced institutional and safely managed service standards.

A cost premium of approximately 20–25 percent is applied to the baseline investment requirement to reflect these additional system and resilience costs. The total estimated investment requirement under this scenario is approximately ₦280–290 billion.

8.5.2 Recommended Investment Pathway

Based on the financing gap analysis and the structure of investment requirements, the most viable pathway for Cross River State is to adopt **Scenario B (Basic Universal Access)** as the core investment strategy, while progressively integrating elements of Scenario C (Climate-Responsive and Lifecycle Financing).

Scenario B represents the minimum investment required to expand access and establish a functional WASH service delivery system, whereas Scenario A does not provide a credible pathway to achieving universal basic access and risks reinforcing existing patterns of infrastructure decline.

9. Potential Financing Opportunities and Pathways

Achieving the investment requirements outlined in Sections 6 and 8 will require a deliberate shift toward a structured and blended financing approach, aligned with the underlying cost components of WASH service delivery. The lifecycle costing analysis shows that investment needs are distributed across capital expenditure (CapEx), operational expenditure (OpEx), capital maintenance (CapManEx), and system support costs (ExpDS and ExpIDS).

Accordingly, financing pathways must be designed to reflect this structure. No single financing source can meet the full investment requirement; instead, different financing instruments and actors must be aligned with the specific cost components they are best suited to finance. This section outlines realistic financing opportunities based on this principle, drawing on current sector financing patterns and the scale of investment required.

Table 41 Indicative WASH Financing Contributions by Source (Annual Estimates)

Source	Indicative Contribution	Share
State Government	₦4.64B	12%
Local Governments	₦3.87B	10%
Federal Government	₦5.80B	15%
Households & Communities	₦11.60B	30%
Tariffs and User Fees	₦3.09B	8%
Development Partners	₦3.87B	10%
Private Sector, Philanthropic & Other Sources*	₦5.80B	15%
Total Estimated Annual Financing Requirement	**₦38.67B**	**100%**

Notes: **Includes private sector participation, philanthropic contributions, corporate social responsibility initiatives, charitable foundations, faith-based support, diaspora contributions, and other non-traditional financing mechanisms.*

9.1 Public Sector Financing: State Government as Core System Anchor

State Government financing remains the primary public anchor of the WASH sector, particularly for infrastructure investment, sector coordination, regulation, and broader system-strengthening functions that cannot be sustainably financed through household contributions, tariffs, or market-based mechanisms. However, stakeholder consultations during the validation process emphasised that sustainable sector financing will require a broader financing base beyond State Government allocations alone.

Under the proposed financing framework presented in Table 41, State Government financing is expected to contribute approximately ₦4.64 billion annually, representing about 12 percent of the total annual financing requirement. This reflects the strategic role of the State Government in driving sector coordination, financing critical public-good investments, and leveraging additional financing from federal programmes, development partners, private sector actors, and philanthropic sources.

State Government financing is expected to support:

- Strategic rural and small-town water infrastructure investment and rehabilitation
- Institutional WASH improvements in schools, health facilities, markets, and public places
- Sector coordination, regulation, monitoring, and governance functions.
- Counterpart funding for federally and externally supported programmes
- Lifecycle financing functions, including rehabilitation and sustainability support.

To effectively play this role, State Government financing should progressively prioritise:

- Improved sector prioritisation within state budgets
- Stronger budget execution and procurement efficiency
- Better alignment between capital and recurrent expenditure
- Dedicated financing for operations, maintenance, and rehabilitation
- Stronger integration of lifecycle financing principles within sector planning and budgeting.

Although State Government financing alone will not close the overall financing gap, more effective and strategically targeted public financing will remain essential for mobilising and coordinating the broader mix of financing required for sustainable rural and small-town WASH service delivery.

9.2 Local Government Financing: Service Delivery and Sustainability Functions

Local Government Areas (LGAs) play a critical role in financing WASH service delivery, particularly in rural and small-town communities where they are closest to service points and local users. Under the proposed financing framework presented in Table 41, LGAs are expected to contribute approximately ₦3.87 billion annually, representing about 10 percent of the total annual sector financing requirement.

Given their proximity to communities, LGAs are best positioned to finance routine and community-facing service delivery functions, particularly those linked to operations, maintenance, sanitation promotion, and local oversight. Their financing role should therefore focus primarily on:

- Routine operations and maintenance of rural water systems
- Rehabilitation of minor and non-functional infrastructure
- Sanitation and hygiene promotion activities, including CLTS follow-up.

- Support for institutional WASH improvements at community level
- Local monitoring, supervision, and service sustainability activities.

Across the 16 LGAs covered under the strategy, this translates to an indicative average annual WASH financing contribution of approximately ₦240–250 million per LGA, although actual financing needs will vary depending on population size, infrastructure gaps, and service delivery responsibilities.

To achieve this, LGAs will need to strengthen:

- Ring-fenced WASH budget lines within annual budgets
- Allocation for operations, maintenance, and rehabilitation
- Planning, budgeting, and implementation capacity
- Co-financing arrangements with State Government and development partners.

While LGAs are not expected to finance large-scale infrastructure expansion independently, strengthening their financing role is essential for sustaining functionality, reducing infrastructure deterioration, and improving long-term service reliability across rural and small-town communities.

9.3 Federal Programme Financing

Federal financing plays an important role in supporting WASH investments in Cross River State, particularly for large-scale infrastructure development that exceeds the fiscal capacity of State and Local Governments. Its most realistic role is as a capital financing and co-financing mechanism focused on strategic water supply infrastructure, rehabilitation, and targeted sanitation investments rather than routine service delivery costs.

Under the proposed financing framework presented in Table 41, Federal Government financing is expected to contribute approximately ₦5.8 billion annually, representing about 15 percent of the total annual sector financing requirement. This financing is expected to support:

- Large-scale rural and small-town water infrastructure
- Rehabilitation of major non-functional systems
- Institutional WASH investments
- Co-financing of priority sector projects
- Strategic sanitation and climate-resilient infrastructure investments.

Federal financing may also be mobilised through constituency projects and national sector programmes. While such investments can provide important supplementary capital financing, they should be better aligned with State priorities, technical standards, and long-term asset management arrangements to avoid fragmented and unsustainable infrastructure development.

Because federal financing is often programme-based and not fully predictable as a stable annual flow, it should complement rather than replace State and LGA financing

responsibilities. Cross River State will therefore need to strengthen project readiness, co-financing capacity, and implementation systems to maximise access to federal financing opportunities and accelerate sector investment.

9.4 Development Partner Financing

Development partner financing plays a catalytic and complementary role in supporting WASH sector transformation in Cross River State. Unlike domestic public financing, which remains responsible for anchoring long-term service delivery and infrastructure sustainability, development partner financing is best positioned to support targeted investments, innovation, system strengthening, and institutional capacity development.

Under the proposed financing framework presented in Table 41, development partner financing is expected to contribute approximately ₦3.87 billion annually, representing about 10 percent of the total annual sector financing requirement. This reflects stakeholder feedback during the validation process that donor financing should remain supportive rather than dominant within the sector financing structure.

Development partner financing is particularly suited to supporting:

- Targeted capital investments in underserved and high-risk communities
- Climate-resilient and innovative WASH infrastructure models
- Sanitation and hygiene promotion interventions, including CLTS and behaviour change programmes.
- Institutional strengthening, technical assistance, and capacity development
- Sector monitoring systems, digital data platforms, and evidence-based planning.

A particularly important role for development partners is supporting sector system strengthening. This includes strengthening planning and budgeting systems, improving monitoring and data management, supporting asset management systems, building technical and institutional capacity within State and Local Government structures, and strengthening sector coordination and accountability mechanisms. Development partners can also support the introduction of lifecycle financing approaches, climate-resilient planning models, and improved service delivery standards across the sector.

In addition to direct financing, development partners can help leverage additional sector financing by:

- Supporting co-financing arrangements with State and Local Governments
- Strengthening project preparation and implementation systems
- Supporting innovative and results-based financing approaches
- Crowding in private sector and philanthropic participation.

To maximise effectiveness, externally financed investments should be fully aligned with State priorities, planning systems, and sector coordination mechanisms. This will require stronger integration of donor-supported projects within government systems, improved coordination across actors, and reduced reliance on parallel implementation structures.

Development partner financing should therefore be positioned as a strategic enabler of sector transformation, supporting innovation, institutional strengthening, and targeted investments while complementing, rather than substituting for, domestic public financing.

9.5 Private Sector Financing (PPP and Financial Intermediation)

Private sector participation in the WASH sector remains limited, primarily due to perceived risks related to revenue reliability, tariff enforcement, regulatory uncertainty, and weak contract enforcement. However, the private sector has a critical role to play in both **infrastructure delivery** and **household-level financing**, provided that appropriate structures and risk-sharing mechanisms are in place.

In this strategy, private sector engagement is structured across two complementary pathways:

9.5.1 Private Sector in Infrastructure and Service Delivery (PPP Models)

Private sector participation is most viable in clearly defined service areas where revenue streams are more predictable and risks can be managed.

Priority Entry Areas

- Small-town water supply systems
- Borehole development and rehabilitation
- Faecal sludge management services
- Sanitation supply chains and service delivery

Table 42 Proposed PPP Models

Model	Application	Simple Description	Risk Allocation
Service Contracts	Operation and maintenance of systems	Government pays a private company to run or maintain the system	Low private risk
Lease / Affermage	Revenue-linked operations	Private operator runs the system and collects user fees, sharing revenue with government	Shared risk
Build-Operate-Transfer (BOT)	New infrastructure development	Private company builds and runs the system for some years before handing it over	Higher private risk
Output-Based Aid (OBA)	Sanitation delivery	Service providers are paid only after agreed results (e.g. toilets delivered) are achieved	Performance-based

Risk Mitigation Measures

To enable private sector participation, the State Government will:

- Provide **capital subsidies or co-financing.**
- Establish **minimum revenue guarantees where appropriate.**
- Strengthen **tariff regulation and enforcement.**
- Ensure **transparent contracting and dispute resolution mechanisms.**

Private sector participation in infrastructure and service delivery is expected to contribute approximately 15 percent of total sector financing, equivalent to about ₦5.8 billion annually, concentrated in targeted service areas such as sanitation markets, rehabilitation services, operations, and maintenance, and selected small-town water systems.

9.5.2 Financial Intermediation: Microfinance and Sanitation Lending

Access to upfront financing remains a key barrier to household sanitation investment. While households are expected to finance sanitation, the lump-sum nature of costs limits uptake, particularly among low-income groups.

Microfinance institutions, including represent a critical channel for enabling household investment through structured sanitation financing products.

Table 43 Proposed Financing Structure

Component	Description
Loan Size	₦50,000–₦250,000
Target Group	Low- and middle-income households
Repayment Period	6–24 months
Delivery Channels	MFIs, cooperatives, WASHCOM-linked groups
Interest Approach	Reduced or blended rates

Risk-Sharing Mechanisms

- Partial credit guarantees (State or donor-backed)
- Blended finance to reduce effective interest rates.
- Integration with CLTS-triggered demand.

Market Linkages

- Alignment with approved sanitation technologies
- Strengthening of local artisans and supply chains
- Bundling finance with technical support and quality assurance

Strategic Role

Financial intermediation does not replace household financing but **enables it** by spreading costs over time. This approach:

- Accelerates sanitation uptake.
- Reduces reliance on subsidies.
- Strengthens sanitation markets.

9.6 Household, Tariff, and Community Financing

Household, tariff, and community-based financing represent a central pillar of the WASH financing architecture, particularly for sanitation, community-level investments, and the

ongoing operation of rural and small-town water systems. Given the scale of the financing gap and the limitations of public sector resources, a substantial share of sector financing will need to come directly from households, service users, and communities.

Under the proposed financing framework presented in Table 41, households and communities are expected to contribute approximately ₦11.6 billion annually, representing about 30 percent of total sector financing requirements. This reflects the reality that sanitation investment remains largely household-driven, particularly for toilet construction, upgrading, and maintenance.

Sanitation capital investment is estimated at approximately ₦87.84 billion over the strategy period, equivalent to about ₦14.6 billion annually. Public financing alone cannot realistically finance this scale of household sanitation demand. Household financing is therefore expected to remain the primary driver of sanitation uptake, supported by targeted subsidies, sanitation marketing approaches, and financing mechanisms that reduce affordability barriers for vulnerable households.

Tariffs and user fees are also expected to play an increasingly important role in sustaining water supply services. Total operational expenditure for water and sanitation/hygiene services is estimated at approximately ₦27.67 billion over the strategy period, equivalent to about ₦4.6 billion annually. Under the proposed financing framework, tariffs and user fees are expected to contribute approximately ₦3.09 billion annually, representing about 8 percent of total sector financing requirements and covering a substantial share of routine operational and maintenance costs in functional systems.

Community-based structures such as Water, Sanitation and Hygiene Committees (WASHCOMs) and Water Consumer Associations (WCAs) remain important for tariff collection, routine maintenance, local accountability, and management of minor repairs. These structures are particularly important in rural and small-town systems where community management arrangements remain central to service sustainability.

To strengthen household, tariff, and community financing, several enabling conditions will be required:

- Development of affordable and context-appropriate sanitation options
- Strengthening tariff administration, billing, and collection systems
- Improving functionality and oversight of WASHCOMs and WCAs
- Introduction of targeted subsidy and financing mechanisms for vulnerable households
- Improved service reliability to strengthen willingness to pay.

Despite its importance, household and tariff-based financing has clear limits. These financing sources are not suitable for financing large-scale infrastructure expansion or major capital rehabilitation and should therefore complement, rather than replace, public and external financing.

Overall, household, tariff, and community financing will remain essential for sanitation uptake, operational sustainability, and local service management, while broader

infrastructure expansion and sector system strengthening continue to rely on public, federal, development partner, and complementary private financing.

Willingness-to-Pay Conditions

Household financing is influenced not only by affordability but by service performance. Willingness to pay increases where:

- Services are reliable.
- Tariffs are transparent.
- Maintenance systems are functional.
- Community norms support sanitation uptake

In practice, willingness to pay follows **service reliability**, not policy intent.

9.7 Philanthropic and Other Non-State Financing Sources

Philanthropic and other non-state financing sources provide an important complementary stream within the WASH financing framework, particularly for community-level investments, institutional WASH improvements, and targeted support for underserved populations. Under the proposed financing structure presented in Table 41, these financing sources form part of the broader non-state contribution to closing the sector financing gap.

These sources may include:

- Corporate Social Responsibility (CSR) initiatives
- Charitable foundations and trusts
- Faith-based organisations
- Diaspora contributions
- Community development associations
- Voluntary community fundraising and philanthropic donations.

Unlike core public financing, philanthropic financing is often more flexible and can respond quickly to local service delivery gaps. It is particularly suited to supporting:

- School and healthcare facility WASH improvements.
- Borehole rehabilitation and small-scale water projects
- Public sanitation and hygiene facilities
- Handwashing infrastructure and hygiene campaigns
- Targeted support for vulnerable and hard-to-reach communities.

CSR financing from private companies operating within the State can also provide important supplementary investment support, particularly in communities affected by industrial activities or located within corporate operational areas. Such financing can help expand access to visible and high-impact community WASH infrastructure while strengthening corporate-community relations.

To maximise effectiveness, philanthropic and other non-state investments should be aligned with State technical standards, sector priorities, and long-term asset management systems.

This is important to avoid fragmented infrastructure development, duplication of investments, and sustainability challenges.

The State Government should therefore strengthen mechanisms for coordinating and integrating philanthropic investments within the broader WASH sector framework through:

- Improved sector coordination platforms
- Clearer technical and quality assurance standards
- Alignment with State and LGA investment priorities
- Stronger monitoring and accountability systems
- Partnership frameworks for non-state actors.

Although philanthropic financing is unlikely to finance large-scale sector expansion independently, it can play an important role in supporting targeted investments, mobilising community participation, and complementing broader public and development partner financing for rural and small-town WASH service delivery.

9.8 Summary: Financing Roles Across Cost Structure

The table below summarises how different financing sources align with the cost structure of the WASH sector, based on realistic financing roles, institutional capacity, and the nature of each cost component.

Table 44 Alignment of Financing Sources with WASH Cost Components

Cost Component	Primary Financing Sources
Water CapEx	State Government (core anchor), Federal financing (capital scale-up), Development partners (targeted and catalytic support), with limited LGA co-financing
Sanitation CapEx	Households (primary), supported by MFIs and cooperative financing (repayable), with targeted public subsidies for vulnerable groups and limited LGA support for public facilities
Operating Expenditure (OpEx)	Tariffs and user payments (primary), supported by LGAs (service delivery) and State Government (system stabilisation and gap filling)
Capital Maintenance (CapManEx)	State Government (primary), supported by selective LGA contributions and targeted development partner support
Support Costs (ExpDS / ExpIDS)	State Government (core system financing), complemented by development partners (technical assistance, system strengthening, and coordination support)

10. WASH Financing Reform Roadmap

The analysis presented in previous sections highlights that the central challenge facing the WASH sector in Cross River State is not only the level of financing required, but the structure and functionality of the financing system itself. Current financing remains heavily oriented toward capital investment, while the costs required to sustain services over time are weakly funded or absent. As a result, infrastructure expansion has not consistently translated into reliable and sustained service delivery.

Addressing this requires a deliberate transition from a fragmented, capital-focused financing system to a coordinated, lifecycle-based financing model. This transition cannot be achieved through a single reform or increase in funding, but through a sequenced set of actions that strengthen system functionality, align financing with service delivery requirements, and progressively build a more resilient and sustainable financing architecture.

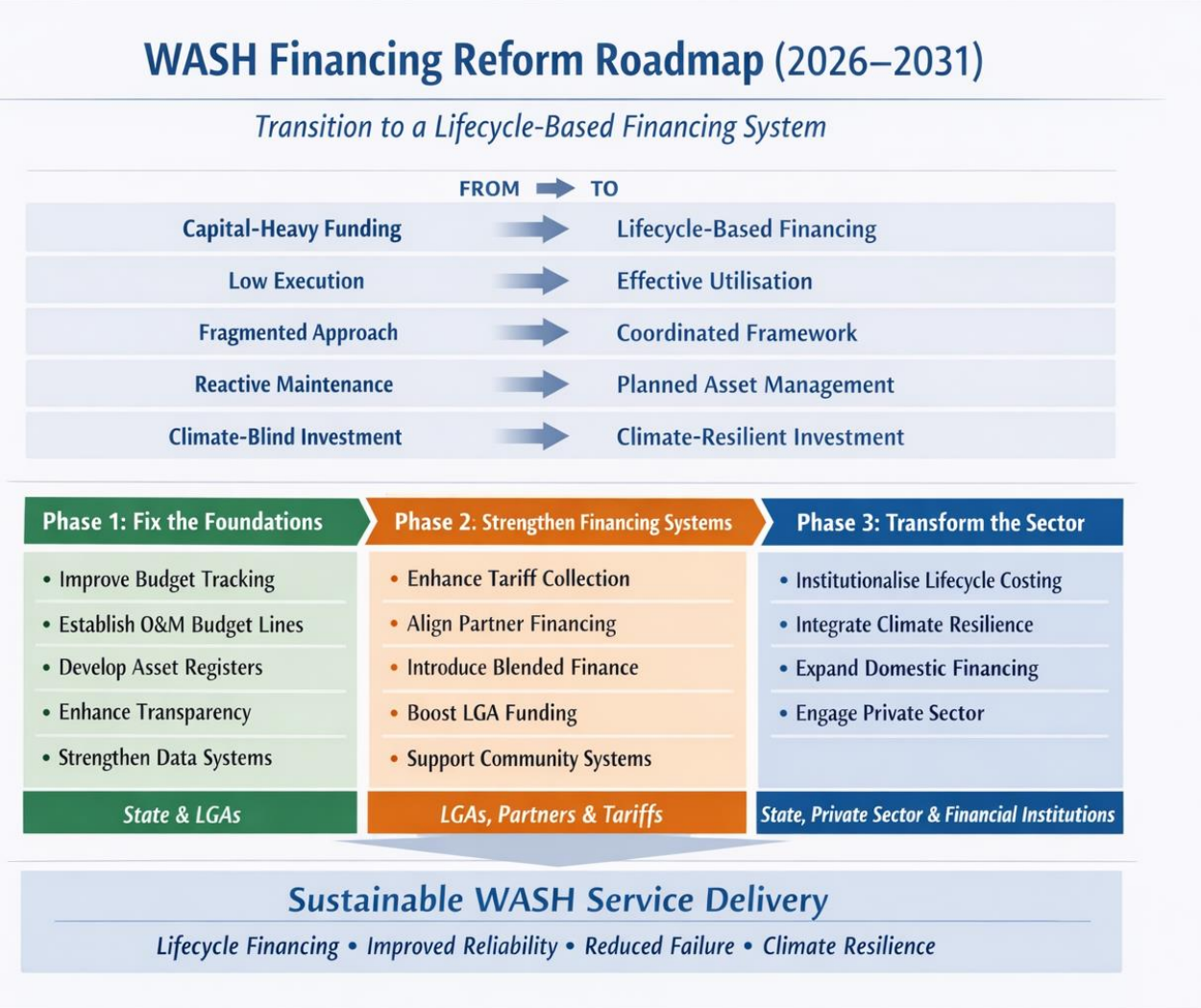

Figure 7 WASH Financing Reform Roadmap

The roadmap outlines a phased pathway for this transition, moving the sector from low execution and fragmented financing toward effective, lifecycle-based, and climate-resilient financing systems.

- Phase 1 focuses on restoring basic functionality within the financing system. The immediate priority is to improve how existing resources are managed, tracked, and utilised, rather than to expand funding levels. This includes strengthening budget tracking and expenditure monitoring systems, establishing explicit budget lines for operations and maintenance, and developing comprehensive WASH asset registers to support planning and maintenance. Improving financing transparency across institutions and strengthening sector data systems are also critical at this stage. These actions address the core system weaknesses identified earlier, particularly low budget execution, weak visibility of financing flows, and the absence of structured maintenance financing. Form and operationalise a multi-stakeholder advocacy coalition comprising civil society, media, and selected influential individuals to champion sector financing and accountability.
- Phase 2 builds on these foundations by strengthening the structure of sector financing and aligning financing mechanisms with service delivery requirements. At this stage, the focus shifts toward improving tariff systems and revenue collection, particularly for water supply services, and ensuring that development partner financing is aligned with state systems and priorities. The introduction of blended financing approaches, where appropriate, supports the mobilisation of additional resources, while strengthening the role of Local Government Areas helps ensure that operations, maintenance, and sanitation programmes are more effectively financed at the service delivery level. Community-level financing systems are also strengthened to improve sustainability of local services. Together, these reforms address key structural imbalances in cost recovery, financing coordination, and service delivery financing.
- Phase 3 consolidates these reforms and transitions the sector toward a mature and sustainable financing system. The focus at this stage is on institutionalising lifecycle costing within planning and budgeting processes, ensuring that all components of service delivery are systematically financed. Climate resilience is fully integrated into financing and investment decisions, reflecting the increasing impact of climate variability on infrastructure performance and service reliability. The domestic financing base is strengthened across state and local levels, while private sector participation is enabled in service areas where revenue streams are sufficiently predictable. This phase represents a shift from incremental improvement to long-term system transformation.

Overall, the reform roadmap provides a structured pathway for improving both the scale and effectiveness of WASH financing. In the short term, improvements in system efficiency and budget execution can significantly increase the impact of existing resources. Over time, stronger financing systems will enable the sector to absorb and utilise higher levels of investment more effectively, ensuring that financing translates into sustained and equitable service delivery outcomes.

Table 45 WASH Financing Reform Roadmap: Core Actions and Milestones

Phase	Focus	Core Actions	Key Milestones	Accountability Triggers
Phase 1 (0–2 Years)	System strengthening and financing visibility	• Establish OpEx and CapManEx budget lines. • Strengthen budget tracking and monitoring. • Develop statewide. • WASH asset register. • Improve financing transparency across MDAs and LGAs • Strengthen sector data systems	• OpEx and CapManEx reflected in budgets. • Functional asset register across LGAs • Annual WASH budget performance report published. • Budget execution ≥ 60%	• Annual public budget review (STG-WASH led) • Mandatory expenditure reporting by MDAs and LGAs • Performance tracking in sector reviews
Phase 2 (2–4 Years)	Financing alignment and revenue strengthening	• Strengthen tariff systems and revenue collection. • Align development partner financing with state systems. • Introduce blended financing approaches. • Strengthen LGA financing for OpEx and sanitation. • Improve WASHCOM and WCA financing systems	• Tariff efficiency increased by ≥ 30% • LGA financing reaches ₦5–7B annually. • At least one blended finance mechanism operational • Donor financing aligned with state systems	• Annual tariff and revenue audits • LGA financing publicly tracked. • State–donor financing review platform established
Phase 3 (4–6 Years)	System consolidation and sustainable financing	• Institutionalise lifecycle costing in planning and budgeting. • Integrate climate resilience into investments. • Expand domestic financing base. • Enable targeted PPP/private sector participation	• Lifecycle costing embedded in all plans • State and LGS financing reaches ₦9Bn annually. • Private sector active in priority service areas • Climate-resilient standards applied	• Annual financing scorecard published. • Independent performance reviews conducted. • Private sector engagement tracked

10.1 WASH Financing Advocacy and Mobilisation Framework

Achieving the required scale of WASH financing in Cross River State will depend not only on technical reforms, but on sustained political prioritisation and accountability. Financing gaps of the scale identified in this strategy cannot be addressed through incremental adjustments alone; they require deliberate and coordinated efforts to influence budget decisions, strengthen accountability, and sustain sector visibility.

To address this, the **State Task Group on WASH (STG-WASH)** will be repositioned as the central platform for WASH financing advocacy, bringing together government, civil society, media, development partners, and influential policy actors to drive sustained engagement on sector financing.

Role of STG-WASH

STG-WASH will serve as the **primary coordination and advocacy platform for WASH financing**, with a mandate to:

- Drive increased prioritisation of WASH within state and LGA budgets.
- Strengthen accountability for budget allocation and execution.
- Facilitate alignment across government, development partners, and other stakeholders.
- Sustain visibility of WASH financing issues within policy and public discourse.

Advocacy Focus Areas

Advocacy efforts will be strategically targeted at key financing levers within the sector, including:

- **State and LGA budget allocations**, with a focus on increasing overall financing levels.
- **Budget execution and expenditure performance**, ensuring that allocated resources translate into actual service delivery.
- **Tariff and revenue reforms**, particularly for water supply systems.
- **Development partner alignment**, to ensure external financing supports state priorities and systems.

Approach and Instruments

Advocacy will be implemented through a structured and evidence-driven approach, combining policy engagement, public accountability, and strategic communication.

Key instruments will include:

- Annual **WASH financing roundtables** linked to budget cycles.
- Publication of **WASH financing scorecards and performance briefs**
- Targeted engagement with executive and legislative actors
- Use of sector data (including WASHIMS and budget performance data) to inform advocacy.

Expected Outcome

A more coordinated and sustained advocacy effort is expected to strengthen political commitment to WASH financing, improve accountability across institutions, and contribute to a progressive increase in sector financing over time.

11. Implementation and Sustainability Framework

11.1 Institutional Responsibilities

The implementation of this strategy is anchored in the rural and small-town WASH institutional framework, ensuring that responsibilities across policy, financing, service delivery, regulation, and accountability are clearly assigned.

Table 46 Institutional Roles Across Rural and Small-Town WASH Financing

Function	Lead Institutions	Supporting Institutions	Key Responsibilities
Sector Leadership and Policy	Ministry of Water Resources and Sanitation (MoWRS)	State Planning Commission	Sector policy, strategy, coordination, and oversight
Planning and Budgeting	State Planning Commission, Ministry of Finance, Budget office	MoWRS, LGAs	Medium-term planning, budget alignment, resource allocation, financing prioritisation
Financing and Resource Mobilisation	Ministry of Finance, Budget office	MoWRS, Development Partners, Financial Institutions	Budget releases, financing structuring, donor coordination, mobilisation of blended finance
Service Delivery (Rural)	RUWATSSA	LGAs, WASHCOMs	Infrastructure delivery, technical support, system supervision
Service Delivery (Small Towns)	STOWA (to be operationalised)	WCAs, Private Operators	Professionalised service delivery and operator oversight
Local Implementation	LGA WASH Departments	RUWATSSA, Communities	Local planning, sanitation enforcement, asset management
Community Management	WASHCOMs / WCAs	LGAs, RUWATSSA	Tariff collection, routine maintenance, minor repairs
Private Sector Participation	Private Operators, Artisans, FSM Providers	STOWA, LGAs	Service provision, sanitation market development, desludging services

Regulation	WASH Regulatory Commission	MoWRS	Tariff setting, licensing, compliance monitoring
Monitoring and Reporting	MoWRS, Regulatory Commission	LGAs, Service Providers	Sector monitoring, data systems, reporting
Accountability and Advocacy	Civil Society (e.g. NEWSAN)	Media, Communities	Social accountability, citizen feedback, transparency
Development Support	Development Partners	MoWRS, Finance Ministry	Capital investment, technical assistance, system strengthening

11.2 Monitoring and Financing Tracking Framework

Monitoring is designed to ensure that financing flows, service delivery, and system performance are fully aligned and measurable.

Unlike traditional M&E systems, this framework explicitly tracks:

- Who pays?
- What is financed?
- What outputs are delivered?

To strengthen accountability, the co-creation workshop recommended elevating the M&E function to a standalone department with dedicated staffing and budget.

Table 47 Core Monitoring and Financing Indicators

Dimension	Indicator	Responsible Institution
Access Expansion	% of population with basic water services (rural/small towns)	MoWRS, RUWATSSA
	% of households with basic sanitation	LGAs
Functionality	% of functional systems	RUWATSSA, LGAs
Financial Sustainability	% of systems covering OpEx through tariffs	WASHCOMs, WCAs
	State WASH budget allocation and released (₦)	Ministry of Finance
	LGA WASH expenditure (₦)	LGAs
Lifecycle Financing	Share of spending across CapEx, OpEx, CapManEx	MoWRS
Equity	Rural vs small-town service coverage	MoWRS
Accountability	Public disclosure of sector performance	MoWRS, CSOs
Data reporting	% of MDAs submitting required WASH data templates on time.	SBS(state Bureau of statistics)

Annual Sector Review Mechanism

The Annual WASH Sector Review, led by MoWRS through STG-WASH, will serve as the central accountability mechanism.

It will:

- Assess coverage and functionality.

- Review financing performance vs Section 9.7 allocations
- Identify gaps in lifecycle financing.
- Inform budget and policy adjustments.

This aligns with the policy requirement for sector-wide reporting and accountability loops.

11.3 Risk Management

Table 48 Risk and Mitigation Framework

Risk Category	Key Risk	Mitigation Measures
Fiscal Risk	Weak or inconsistent state/LGA funding	Strengthen budget planning and releases through Ministry of Finance
Institutional Risk	Weak LGA performance	Capacity building, supervision by RUWATSSA
Political Economy Risk	Bias toward CapEx over maintenance	Enforce Section 9.7 lifecycle financing. Establish a multi-stakeholder advocacy coalition; use civil society and media to track budget performance and publicly recognise progress.
Operational Risk	Weak community management systems	Strengthen WASHCOMs and WCAs
Market Risk	Weak sanitation/private sector markets	Support FSM providers, artisans, MFIs
Accountability Risk	Limited transparency	Strengthen CSOs (e.g. NEWSAN), public dashboards
Climate Risk	Flooding, water scarcity	Climate-resilient infrastructure design

11.4 Sustainability Outlook

Sustainability in the WASH sector is achieved when financing, institutions, service delivery, and accountability systems function together over time. The conditions below define what must be held for the strategy to deliver sustained outcomes.

Table 49 Sustainability Conditions for Rural and Small-Town WASH

Sustainability Dimension	Required Condition	Lead Institutions	Link to Financing	Risk if Not Achieved
Financing Sustainability	Lifecycle financing fully implemented across CapEx, OpEx, CapManEx, ExpDS	Ministry of Finance, MoWRS	All cost components clearly financed	Infrastructure deterioration and repeated rehabilitation cycles
	Increased tariff contribution for OpEx	WASHCOMs, WCAs, LGAs	OpEx financed through tariffs + LGAs	Systems become non-functional due to lack of O&M funding

	Predictable public financing for CapManEx	Ministry of Finance, State Government	CapManEx financed through State support	Major asset failures and system collapse
Institutional Sustainability	Clear role execution across MoWRS, RUWATSSA, LGAs, STOWA	MoWRS	Supports all financing components	Role overlap, weak coordination, inefficiency
	STOWA operationalised for small towns	State Government, MoWRS	Strengthens service delivery financing	Weak management of small-town systems
	LGAs actively implement WASH responsibilities	LGA WASH Departments	Supports OpEx and sanitation financing	Weak local service delivery and maintenance gaps
Service Sustainability	Routine maintenance institutionalised (not reactive)	RUWATSSA, LGAs, WASHCOMs	OpEx + CapManEx financing utilised effectively	Rapid infrastructure breakdown
	Functional community management systems (WASHCOMs/WCAs)	LGAs, Communities	Tariffs support system operations	Poor tariff collection and system neglect
	Reliable service delivery in rural and small-town systems	RUWATSSA, STOWA	Full lifecycle financing applied	Declining service levels
Accountability Sustainability	Regular sector performance monitoring and reporting	MoWRS, Regulatory Commission	Tracks financing and performance	Weak decision-making and resource misallocation
	Public disclosure of financing and performance data	MoWRS, CSOs (e.g. NEWSAN)	Ensures transparency across all financing flows	Reduced trust and weak oversight
	Active citizen engagement and feedback mechanisms	CSOs, LGAs	Strengthens accountability	Low community ownership and sustainability

			of service providers	
Market & Private Sector Sustainability	Strengthened sanitation and service markets (FSM, artisans)	Private Sector, LGAs, MoWRS	Supports sanitation CapEx (households + MFIs)	Slow sanitation uptake and weak service chains
	Access to financing for households (e.g. MFIs, credit schemes)	Ministry of Finance, Development Partners	Enables household sanitation investment	Limited uptake of improved sanitation
Climate Sustainability	Climate-resilient infrastructure design integrated into planning	MoWRS, RUWATSSA	Influences CapEx and CapManEx	Infrastructure failure due to climate shocks
	Diversified and resilient water sources	MoWRS, RUWATSSA	Long-term financing planning	Water supply disruptions


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