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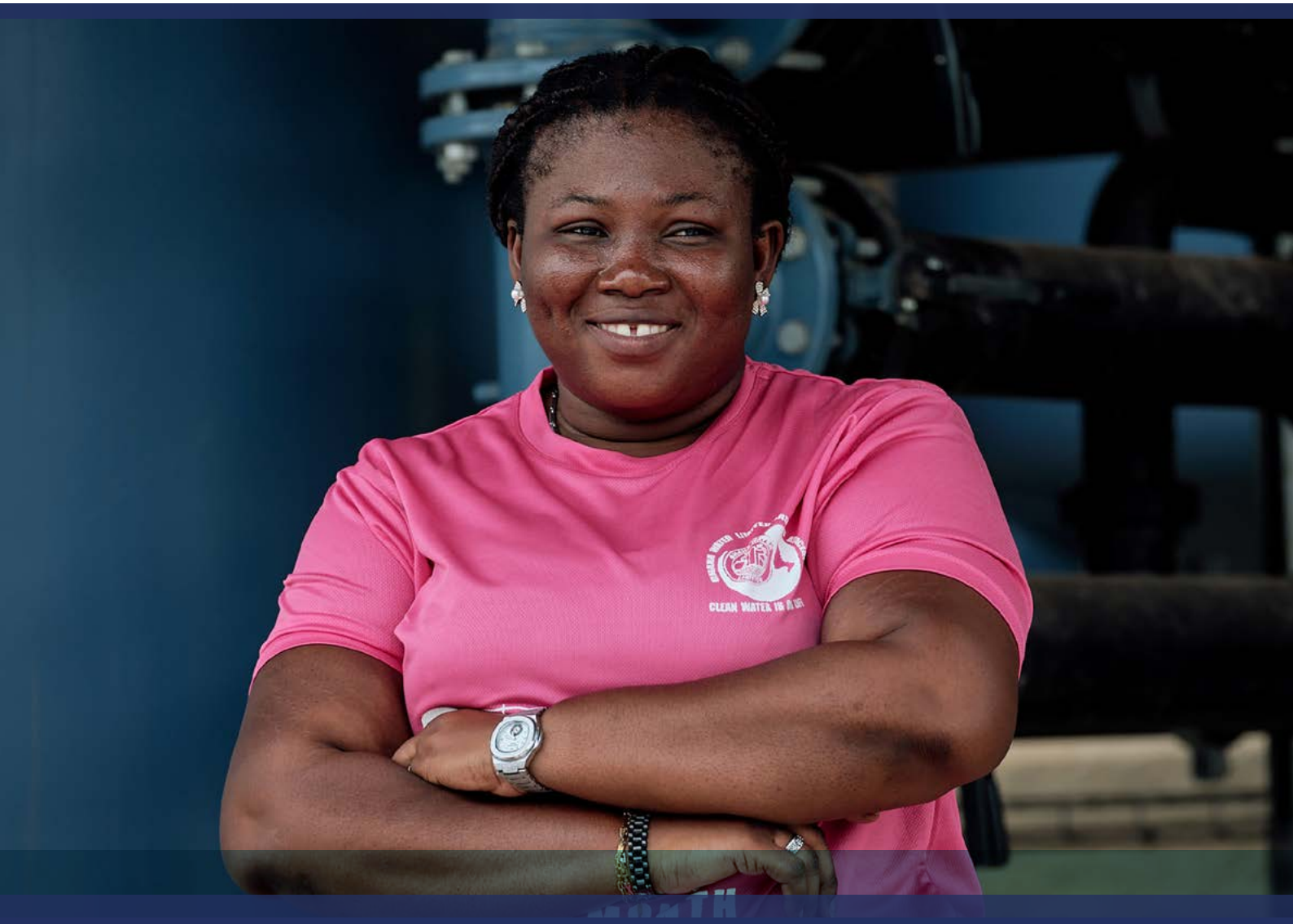

Rural Water "Utilitisation" Project (R-WUP), Ghana:

Study on formalising relationships between CWSA, private operators, WSMTs and other actors

Final Report

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Final Report

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Acronyms and abbreviations

ATM	Automatic Teller Machine
BOT	Build, Operate and Transfer
CapManEx	Capital Maintenance Expenditure
CBM	Community-Based Management
CEO	Chief Executive Officer
CLC	Community Liaison Committee
CLOGSAG	Civil and Local Government Staff Association, Ghana
COM	Community Ownership and Management
CONIWAS	Coalition of NGOs in Water and Sanitation
CWSA	Community Water and Sanitation Agency
DWD	District Works Department
ECG	Electricity Company of Ghana
FDA	Food and Drugs Authority
FMP	Facility Management Plan
GoG	Government of Ghana
GSA	Ghana Standards Authority
GSS	Ghana Statistical Service
GWCL	Ghana Water Company Limited (precursor to GWL)
GWL	Ghana Water Limited (formerly GWCL, which replaced GWSC)
GWSC	Ghana Water and Sewerage Corporation (precursor to GWCL)
IGF	Internally Generated Funds
KPI	Key Performance Indicator
LMIC	Lower Middle-Income Country
LMS	Limited Mechanised Scheme
MLGCRA	Ministry of Local Government, Chieftaincy, and Religious Affairs
MMDAs	Metropolitan, Municipal and District Assemblies
MOU	Memorandum of Understanding
MSWR	Ministry of Sanitation and Water Resources (now defunct)
MWH	Ministry of Works and Housing (now defunct)
MWHWR	Ministry of Works, Housing and Water Resources
NDPC	National Development Planning Commission
NEDCo	Northern Electricity Distribution Company
NGO	Non-Governmental Organisation
NRW	Non-Revenue Water
PPP	Public-Private Partnership
PURC	Public Utilities Regulatory Commission
RCC	Regional Coordinating Council
SDG	Sustainable Development Goal
SIGA	State Interests and Government Authority
SWE	Small Water Enterprise
SWN	Safe Water Network
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WEDA	Wassa East District Assembly
WRC	Water Resources Commission
WSMS	Water System Management Staff
WSMT	Water and Sanitation Management Team
WSUP	Water and Sanitation for Urban Populations

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- Community Water and Sanitation Agency (CWSA), Head Office and Western Region
- Ghana Coalition of NGOs in Water and Sanitation (CONIWAS)
- Ghana Water Limited (GWL)
- IRC
- Maple Consult
- Ministry of Works, Housing and Water Resources
- National Development Planning Commission (NDPC)
- Public Utilities Regulatory Commission (PURC)
- Safe Water Network, Ghana
- SkyFox Limited
- Wassa East District Assembly
- Water and Sanitation for Urban Populations (WSUP)
- Water and Sanitation Management Team, Nkroful, Nzema East Municipal Assembly
- WaterAid Ghana
- World Bank, Ghana Office

1 Introduction

1.1 Background: the evolving role of CWSA in rural water supply

The National Community Water and Sanitation Programme (NCWSP) which introduced the Community Ownership and Management (COM) concept has made some progress since its launch in 1994. Access to water supply in rural communities and small towns in Ghana has risen from 27% in 1990 to 62% in 2022, while contributing to improvement in water-related sanitation and hygiene. However, the programme was fraught with significant challenges.[1]

A key part of COM was the facilitation support provided by CWSA, as defined in Act 564. As a facilitator (as opposed to an implementer or operator) of rural water, sanitation and hygiene (WASH) services, CWSA prepared strategic investment plans for the rural water subsector and supported the Metropolitan, Municipal and District Assemblies (MMDAs) with activities such as preparing their WASH projects, sourcing investment finance, procuring contractor and consultant services, supervising the construction of facilities, engaging communities and educating them on good hygiene practices, training local Water and Sanitation Management Teams (WSMTs) to enable facility managers to deliver services sustainably, supporting with diagnosing major faults, and backstopping them in their management roles. Under the COM model, CWSA had no staff at facility level and communities took responsibility for managing their water services – mainly water points but also some limited mechanised schemes (LMSs), through volunteer WSMTs. Notionally, the WSMTs reported to the MMDAs, as their service authorities.

Over time, there have been various efforts at changing and even expanding the role of CWSA. Key among these has been the revision of the national water policy document by the former Ministry of Sanitation and Water Resources (MSWR), following a four-year review process. This revision comes on the back of earlier reforms in 2017 that sought to re-orient CWSA's role from one of facilitation/ technical assistance to that of regulation. A subsequent shift towards becoming a utility was endorsed in a cabinet memo approved in 2019, with the revised policy (only published in 2024) subsequently capturing the intention to change CWSA's role. At its heart, the revised policy hinges on professionalising the operation and management of piped water supply schemes while reducing the role of community-based management (CBM). On the one hand, the policy enjoins CWSA's direct involvement in delivering rural water services. On the other, it fosters the participation of the private sector and anticipates private investment (for both brownfield rehabilitation and greenfield development) in that space, with realistic cost-reflective tariffs set by the pricing regulator to ensure sustainable operation and maintenance of water services.[2]

1. COM has been widely critiqued in assessments of rural water service delivery in Ghana. MMDAs have been criticised for shirking their responsibilities as service authorities and neglecting to perform even the most basic activities such as listing the water facilities in their asset registers and monitoring their own WASH plans. They routinely default in supervising operations and demanding accountability for the performance of the systems managed by their WSMTs, and water quality testing has virtually ground to a halt in COM territory. The dearth in accountability has fuelled revenue leakages, with vested interests siphoning off proceeds or failing to collect tariffs consistently. Under these conditions, systems have piled up debts on electricity usage and experience frequent breakdowns from the lack of maintenance. Over time, it has become increasingly clear that it is unrealistic to expect systems to be run professionally on a model pivoted on voluntarism. The sheer cost of grid electricity and the damaging effect of brownouts and surges also played a role in wrecking system pumps and making it harder to break even on operations.
2. The involvement of the private sector is intended to be guided by a Public-Private Partnership (PPP) Act (Act 1039 of 2020), with contracts in the form of either leases or concessions (Ecopsis, 2024: 22,39).

While the development of the policy was underway, CWSA started managing about 200 small-town systems (out of over 500 nationwide). In parallel, many other service providers have emerged, also partially in response to the limitations of COM. CWSA estimates that there are currently over ten thousand providers employing a wide range of approaches while also commonly operating outside Ghana's regulatory arrangements.[3] These providers[4] span a wide spectrum – from community-based WSMTs to private service providers operating professionally (including some non-governmental organisations (NGOs) and for-profit operators), to various local élites who have captured the communal facilities and are operating them for private benefit, to local individuals who are networking their sub-neighbourhoods and distributing water to fellow households.

This has led to a situation of rural water supply under which CWSA is thus the de facto service provider in some 200 small towns, but alongside the thousands of other providers. CWSA is, therefore, performing this new role while still formally holding onto the role of facilitator. Under these circumstances, potential conflicts and contradictions are likely to arise around the roles and mandates of system actors, with recurrent calls for CWSA to clarify the contours and practical implications of the "utilitisation" agenda.[5]

With the revised water policy now approved, CWSA is even more determined to continue its journey towards becoming a fully-fledged utility. Given that utilities always operate in relation to other stakeholders, it seemed constructive to take stock of the perspectives of the key stakeholders in Ghana's rural water subsector on the current state of service provision and elicit their views on next steps in implementing the water policy. Stakeholders argue that merely transforming into a utility without concrete steps to address existing weaknesses and embed them in the transition process will not automatically yield the desired expectations and Sustainable Development Goals (SDG) 6 outcomes.

1.1.1 Purpose of study

This study seeks to understand the implications of CWSA's changing role as a water utility service provider – see the study's terms of reference (ToR).[6] It examines how this transformation impacts on the roles of other actors in the rural water service delivery subsector and indicates what gaps need to be addressed as preconditions to CWSA standing a decent chance of succeeding as an effective subsector utility.

3. The Western Region alone has some 931 limited mechanised schemes and 68 piped schemes, mostly managed by unregulated individuals operating commercially.
4. While some have some kind of permit from their respective assemblies, the operations typically lack legality, with the overwhelming majority operating free of any regulatory restraint. Under these conditions, performance standards and accountability to customers tend to be very low.
5. The journey towards becoming a utility is also referred to by CWSA and its partners as "utilitisation".
6. Annex 1

1.1.2 Analytical framework

In order to meet the study's objectives, we have applied an analytical framework that borrows from the World Bank's Water Utility Turnaround Framework.[7] This framework indicates that:

1. For a utility to perform effectively, it first needs to have autonomy. This does not only refer to autonomy in governance, but also to clarity on its mandate, scope and service area.
2. It then needs to have internal work processes that gradually mature to become an efficiently operating utility.
3. Its relations with external stakeholders need to be proactive. These include formal interactions with local governments, regulators and other water users. In some cases, stakeholders may also include other service providers who operate in neighbouring service areas.

This study seeks to capture the perspectives of CWSA and other stakeholders on these three issues. It then presents reflections on next steps towards CWSA becoming an effective, fully-fledged utility.

1.1.3 Methodology

The research took place between March and April 2025. The methodology combined a desk review of recent reports on Ghana's rural water subsector with an inception session between the client and the consultant to define the priorities to be researched. This was followed by interviews in Accra and the Western Region, and a synthesis of the findings. The fieldwork entailed a mix of interviews (in-person and virtual), with observations of innovations and delivery processes in the Western Region, where several stakeholders have been testing efficiency-related and cost-saving solutions for the last three years, with funding from the Conrad N. Hilton Foundation.

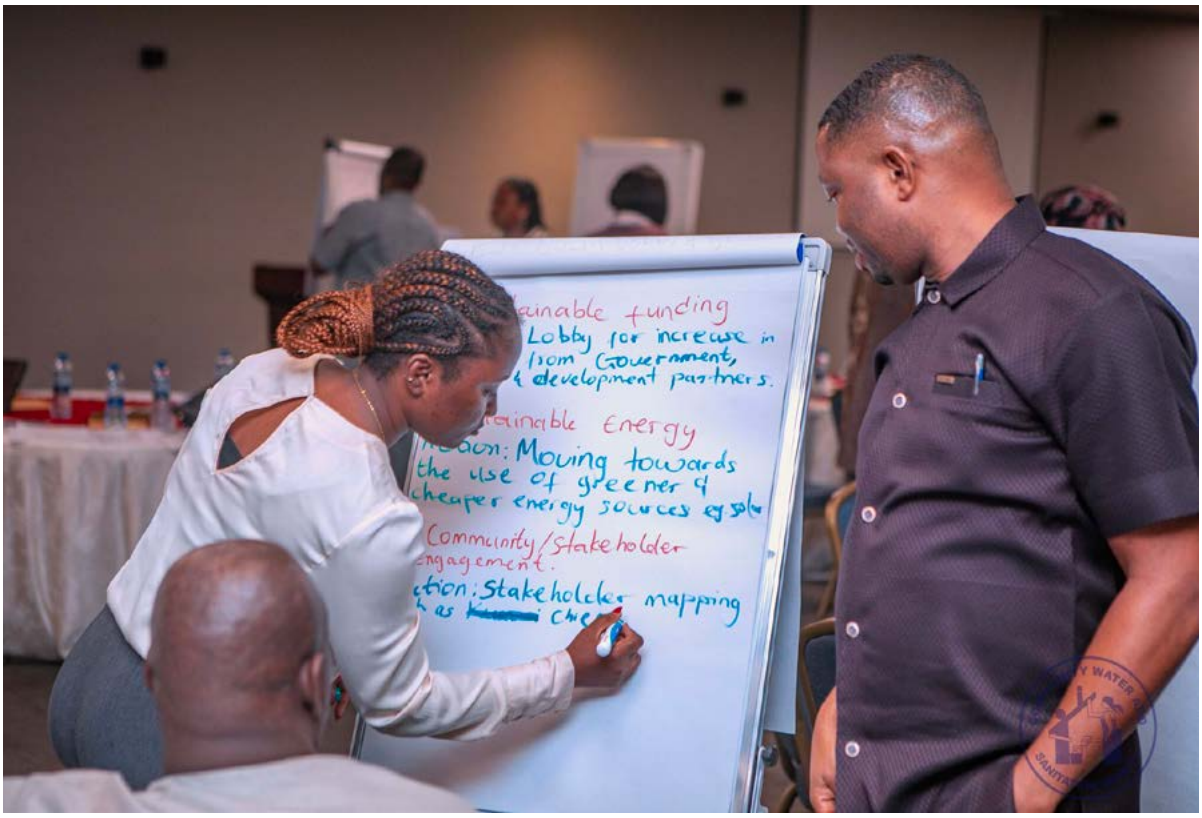
The interviews covered the public water service providers (CWSA HQ, CWSA WR and Ghana Water Limited, head office) and other key state actors (a district planning office, National Development Planning Commission (NDPC) and Public Utilities Regulatory Commission (PURC)). Several non-state service providers (Ghana Coalition of NGOs in Water and Sanitation (CONIWAS), Safe Water Network (SWN), 4Ward Development, Water and Sanitation for Urban Populations (WSUP) and WaterAid), as well as a former Managing Director of GWL and a key consultant in the rural water subsector (Maple Consult) also participated. The World Bank shared reflections from its involvement in the wider water sector.

The final stage in the methodology comprised a series of meetings with stakeholder groups to review the interim findings and sharpen the conclusions and recommendations. Participants found these meetings to be instructive for informing further thinking on the "utilitisation" agenda.

1.1.4 Limitations

The fieldwork encountered challenges in securing an adequate involvement of local government actors. This is because the Civil and Local Government Staff Association, Ghana (CLOGSAG) was on strike during the study period. The interview with Ghana Water Limited (GWL) was likewise constrained by the fact that most of the staff who were familiar with CWSA's transition towards becoming a utility have since left the organisation. While the study team did reach and interview some informants from these institutions, the views expressed may not adequately reflect the official positions of the institutions.

7. Soppe, Gerard, Nils Janson, and Scarlett Piantini. 2018. Water Utility Turnaround Framework: A Guide for Improving Performance. Washington, DC: World Bank



1.1.5 Structure of report

Following this introduction, the main discussion begins in Section 2 with a recap of salient issues in the rural water system as a basis for understanding and analysing the findings from the fieldwork. This is followed in Section 3 by the fieldwork's key findings. The reflections are separated into issues internal to CWSA's transition into a utility (such as its mandate, financial health and operational efficiency) and others relating to CWSA's changing relationship with key actors in the sector – among them WSMTs, the Ministry of Works, Housing and Water Resources (MWHWR), Metropolitan, Municipal and District Assemblies (MMDAs), NDPC, PURC and the private sector. The discussion includes questions around stakeholder support for CWSA's transition to a utility service provider. Based on these reflections, Section 4 identifies a range of gaps that need to be addressed to achieve the goals of CWSA's transition. The issues range from technical assistance to the assemblies, regulation, equity and last-mile access, adoption and scaling of solutions, to the stubborn challenges threatening operator viability. Finally, in Sections 5 and 6, the report wraps up first with key conclusions and then elaborates some recommendations emerging from the findings.

2 Findings

2.1 Mandate and autonomy of CWSA

2.1.1 Policy mandate

Building on the processes outlined in Section 1, and in line with the desire of the Government of Ghana (GoG) to expand piped water supply in rural and small-town contexts,[8] a revised policy document was eventually launched in July 2024. Inspired by the policy reforms described in Section 1, CWSA sees itself transitioning into a utility service provider managing piped schemes, with some 800 water system management staff (WSMS). Even as it steadily increases its presence in the provider space, it has retained some facilitator functions, by continuing to support districts with nominal technical advice on request, though that role is now largely informal.

2.1.2 CWSA's legal mandate

On the legal front, **Act 564, which is the legislation defining CWSA's mandate, has not yet been repealed or revised.** This means that, for now, CWSA's transition into the domain of utility service provision lacks proper legal backing. Closely related to this is the fact that CWSA also lacks clear legal grounds for recovering debts for services rendered by previous operators.

Key actors in the sector are also anxious that, in switching to a utility service role, CWSA may be unconsciously annexing the statutory mandate of local authorities. Citing the 1992 Constitution and the Local Governance Act (Act 936), which assign local authorities with the responsibility for developing and implementing such services in rural areas, stakeholders fear that the reforms, albeit inadvertently, appear to transfer that mandate to CWSA when the latter is not a department under the district assembly framework.

2.1.3 Legal ownership of system assets and associated revenues

Similar legal questions surround the ownership of the assets that CWSA is taking over. For now, MMDAs are typically executing the transfer of water service assets to CWSA through memoranda of understanding (MOUs). Such MOUs lack the force of law, however, considering that there is currently no legal framework permitting MMDAs – as asset owners, under the Local Governance Act, 2016 (Act 936) – to transfer or delegate the ownership of water assets to other entities. Besides, as observed above, the asset register of the typical assembly does not list these water assets. All of this is not helped by perceived conflicts between Act 564 (which establishes CWSA) and the subsequent legislative instrument (LI 2007) which seeks to operationalise the parent legislation.

Further complicating the matter is the fact that communities are also laying claim to the assets, based on their understanding of the COM concept. Their position is supported by the fact that their respective assemblies typically transferred the assets to them at the service commissioning ceremonies that took place once construction had been completed.[9] Others root their claims in the fact that communities were made to contribute five percent equity (paid partly for in the form of communal labour) towards the capital cost, making them legal

8. A small town has a population between 2,000 and 5,000.
9. These transfers were characteristically verbal rather than written, however.

co-owners. In other cases, there are powerful local élites and vested interests (e.g., chiefs, assembly members and remunerated facility managers) who are simply unwilling to relinquish their financial interests in the facilities.

As a result, some communities and their assemblies are declining requests to turn their systems over to CWSA for direct management. Their reluctance to hand over the facilities stems from several sources. First, for as long as the law defining CWSA's relationship with the assemblies and communities remains unchanged, communities can be expected to continue to insist on the facilities belonging to them. Further, the logic for CWSA seeking to become a utility pivots largely on the observation that the COM and its allied WSMTs were performing poorly and that facilities were not being managed professionally. This justification weakens significantly where systems are running efficiently and effectively. Cases were cited, albeit a minority, where communities have recruited technical personnel to manage the assets professionally or where the initial facilities have been expanded through communal investments and local fundraising drives.

Also unresolved is the question of revenue sharing between CWSA and the assemblies. The study team was informed about MMDAs demanding such compensation as a condition for relinquishing their water assets to CWSA. For now, where communities have agreed to hand over their systems, CWSA has reciprocated by recruiting local citizens onto the management teams of the respective services, thereby minimising redundancies. Yet, even for such systems, revenue shortfalls have hampered CWSA's ability to respond effectively to faults on the asset network, let alone pay out a share of profits to the respective local authorities.

Related to the subject of asset ownership is the question of **what happens when the private sector providers currently operating build, operate and transfer (BOT) schemes eventually hand over the assets to the respective MMDAs.** SWN alone already has over 40 MMDAs to whom it would be required to hand over its local assets in some 15 or so years when its agreements with these MMDAs expire.[10] The agreements typically require such private sector entities to hand over the assets to the communities/ MMDAs (both of whom lack the resources and professionals) and are being persuaded to transfer their assets to CWSA.

At the regional level especially, CWSA acknowledges that "utilitisation" is proving to be a big ship to turn, with several issues (e.g., equity considerations, and facilitator and regulator roles) not adequately anticipated when developing the initial concept. These are discussed in greater depth, in the sub-sections below.

2.2 Factors internal to CWSA's work processes

2.2.1 Organisational financial health and operational efficiency

CWSA anticipates that by becoming a utility service provider, the organisation will benefit from an enlarged revenue base as operations become more professional and transparent, along with economies of scale and a reduction in its fixed cost ratio. CWSA expects to transfer these gains to its customers in the form of safer supplies, improved reliability and lower costs. While aspiring to become a fully-fledged utility, CWSA also indicated that it will need funds for capital investments and capital maintenance independent of tariff revenues or internally generated funds (IGF).

10. SWN is an NGO delivering safe water services in predominantly rural districts through long-term BOT contracts with MMDAs. See Annex 2 for further details.

Yet, **in taking up the responsibility for managing Ghana's rural water assets, CWSA finds itself burdened with the oldest, least functional and most unprofitable systems.**[11] This situation arises because communities with the most functional systems tend to decline to transfer their assets to the agency (see preceding paragraphs). Along with the derelict systems, CWSA is also inheriting significant legacy debts on unpaid energy bills. The resulting expenditure burdens and functionality deficits threaten the organisation's finances and longevity. Ordinarily, the recent passage of the municipal finance bill may have eased the financial burden on CWSA by facilitating MMDAs' access to investment capital. However, this potential is not available as CWSA is determined to take over the water assets from the assemblies.

On top of the challenges to CWSA's financial wellbeing, its ability to carry out its mandate will be affected by its productivity in domains such as non-revenue water, energy efficiency and billing collection. Officials of CWSA interviewed lamented substantial shortfalls in public allocations for expansion and rehabilitation, even as financial support from donors concurrently dwindles.[12] Net of capital maintenance expenditures (CapManEx), the annual cost of extending basic services to underserved rural populations is estimated at some US$ 50-65 million (Ecopsis, 2024: ii). Yet, CWSA's total annual expenditure averages just US$10m – a fraction of the projected need. This is on the back of anecdotal evidence pointing to abstraction and maintenance expenditures in the wider water sector having risen astronomically in recent years,[13] what with the escalation in uncontrolled mining on riverbanks and in riverbeds, intensifying the pollution of surface water sources. Under such conditions, energy expenditure ratios of approximately 52% for the Western Region and corresponding billing collection efficiencies of a low 71% (GSS et al, 2023: 47,48) seriously threaten CWSA's viability as a utility. Given the extent of old and broken systems typically being inherited by the organisation from the COM regime, it is not surprising that as much as 26.7% of CWSA's water supply fails the reliability test in the Western Region[14] (GSS et al, 2023: 45). Predictably, the combination of huge unpaid bills for electricity consumed over long years, aging assets and a past record of poor maintenance can only exacerbate the strain on CWSA's finances and operations.

WSUP and SWN have been supporting CWSA with the objective of improving on these metrics and eventually assuring the organisation's financial security (Wumbei and Bori (2025: 23,29). Where CWSA's system assets were previously not properly mapped, comprehensive geo-based registers indicating all pipelines (both above and below ground), along with functionality status data, are now available in digital form for nine systems in the Western Region. Over the past few months, CWSA has also completed the process of establishing a desk for commercial services, with relevant software tools for engaging at system level – e.g., meter reading, billing, collection and responding to customer complaints. The organisation has further commenced a pilot e-payment scheme in three regions (Ashanti, Greater Accra and Upper East) in a bid to remedy debt and accountability setbacks. While current data still show high levels of inefficiency on key metrics, the recent changes mentioned are expected to start reflecting in data improvements in the coming quarters, beginning with the Western Region. CWSA's recent signing up to the mWater platform further allows services to be monitored remotely in real time, giving additional reason to be cautiously optimistic.

11. Even though some new systems have been constructed over the period of the reforms, 73% of CWSA's piped schemes are over 10 years old, and some 9.7% are entirely non-functional (GSS et al, 2023: 32,36).
12. Challenges with funding have been particularly acute since Ghana notionally transitioned to lower middle-income country (LMIC) status, thereby losing access to more generous sources of financial support. That notwithstanding, grants and loans made up some 12% of WASH finance, according to the Ghana WASH account.
13. GWL has repeatedly highlighted this burden in public statements.
14. Note, however, that the GSS definition of reliability goes beyond system uptime to include the consistency of quality.

2.3 Factors relating to actors external to CWSA

In this section, we present our findings on the relation between CWSA and its external stakeholders, including their engagement in the reform agenda. Issues discussed range from how key actors and their roles align with CWSA's mission, critical factors in the rural water service delivery ecosystem, stakeholder support for CWSA's transition to utility service provision, and gaps that are emerging as the shift takes root. These are important for identifying critical additional reform measures that may be needed to secure lasting outcomes to the transition agenda.

2.3.1 Stakeholder support for the reform process and CWSA's vision as a utility

With its vision of becoming the leading water service utility in Africa, CWSA has consulted widely with the aim of building consensus and soliciting inputs from stakeholders in the sector. While actors like local authorities, Regional Coordinating Councils (RCCs), NDPC, PURC and non-state operatives have been consulted from time to time and at different sector fora, the engagement was not sufficient to embed these other actors, carry them along, and inspire a shared strategy for harmonised impact. Stakeholders interviewed often expressed concern about lacking access to CWSA's [draft] document purportedly articulating the organisation's thinking regarding the roles expected of other sector actors (e.g., MMDAs, NGOs, Small Water Enterprises (SWEs), WSMTs) in the transition agenda. While the document remains a work in progress, stakeholders think that conversations around it nonetheless ought to begin early as they have major stakes in CWSA's transition agenda.[15]

A key outcome of the shortfall described above is that **the justification for CWSA's shift towards becoming a utility is not co-owned by some significant players in the sector.** Among private sector operators especially, there is a perception that CWSA has not done enough to clarify and mobilise related actors around its intentions to ensure a cohesive sector. Others identify a series of gaps (see Section 2.4, below) which, if left unaddressed, would undermine prospects for achieving the broader goals of the reform. In short, key sector players cannot be expected to work intentionally towards a common goal and resolve system challenges in a holistic way when they lack a clear and shared understanding of CWSA's agenda.

Limited buy-in to the rationale for "utilitisation". While acknowledging the challenges leading to COM's abandonment as the primary model of rural water service delivery, many stakeholders, however, question the feasibility and potential of "utilitisation" in itself as the response to that model's failings. The lack of stakeholder support for the "utilitisation" agenda is also partly attributable to concerns about the depth and effectiveness of engagement with the concept.[16] Several actors remain sceptical about the prospects of achieving sustainable service outcomes in the absence of more comprehensive and deliberate attention to broader issues like equity and alignment with the country's decentralisation policy, persistent gaps in sector facilitation and regulation, and inadequate law enforcement to curb galamsey and its impact on the availability of fresh water and quality.[17]

15. CSWA has been developing a draft framework to define its relationship with the WSMTs. However, the document does not adequately cover the wider spectrum of actors and functions in the rural water system.
16. While acknowledging that the "utilitisation" agenda was indeed presented at various fora, some stakeholders believe that CWSA's ability to engage effectively was undermined by the lack of a well-resourced donor to support and drive more productive engagements and analyses.
17. Within the wider water service delivery system, there are several pre-existing situations that increase pressure on the adequacy and reliability of water supplies nationwide and heighten the challenges of delivering services sustainably. These include climate change, an increasingly unfavourable funding environment, illegal mining (a.k.a. galamsey) and high population and urbanisation growth rates, of over 2% and 3% annually respectively. On top of these, action to enforce laws on water resource contamination has been woefully inadequate. As the delay in enforcement persists, illegal miners have persisted in wreaking havoc on Ghana's surface and groundwater resources, seriously threatening safe water security, with adverse consequences for all categories of water service providers.

Another explanation for the suboptimal buy-in for the reform process is that, compared to the earlier reforms in which CWSA split off from GWL[18] and the COM model was introduced, **the current reform agenda has not been driven as passionately from the higher (policymaking) level** (i.e., by MWHWR or the Ministry of Local Government, Chieftaincy, and Religious Affairs (MLGCRA)). This may be explained in part by the high turnover at the leadership level of the ministry (several ministers and a change of government in the last five years). Such high turnover tends to undermine the institutional memory and ministry ownership/ leadership with regard to the reform agenda. Furthermore, in the four years during which the RWUP initiative has been running, CWSA too has had three different Chief Executive Officers (CEOs), with varying views on the reform priorities, and three regional directors for the Western Region, where the "utilitisation" concept is being modelled. Similarly, high staff turnover rates mean that, even within the organisation, there are several new staff who are not properly oriented on the reforms.

Frequent changes in the leadership of the ministry and its mandate have been disruptive and contributed to delaying the revision of the water policy. Just in the last decade, responsibility for water has shifted from a Ministry of Works and Housing (MWH) to a Ministry of Sanitation and Water Resources (MSWR), and now to a Ministry of Works, Housing and Water Resources (MWHWR).[19] A further concern, in the face of the persistent inefficiencies and losses plaguing rural water service delivery nationwide, has been that the responsible ministry has not invested sufficiently in leveraging best practices and relevant tools from the range of private sector experiments or demanding more action from its agencies to scale their efficiency-enhancing measures.

Some stakeholders, from both public and private sectors, further perceive the reforms as being overly public oriented, rather than addressing the larger group of water service providers, most of whom are private sector operators. In the opinion of these stakeholders, the revised document does not sufficiently address the thorny issues around how the numerous small operators can be facilitated to deliver their services effectively, despite the fact that these small water enterprises (SWEs), community and private operators constitute the majority of service providers.[20]

Across the sector, **there is also widespread apprehension about CWSA seeking to perform multiple functions on top of the utility service role which the water policy assigns to the organisation.** Other roles which CWSA is perceived to be performing include those of service authority (in the sense of managing the smaller, private operators), coordinator and regulator, beside its original role of facilitator. Further obscuring the situation is the fact that CWSA is also expressing a preference for becoming a statutory authority rather than a limited liability company. Not only do the multiplicity of roles risk overwhelming the organisation and confusing other sector actors; these actors also argue that CWSA's active involvement in the regulatory function raises serious concern about potential conflicts of interest. Other actors have consistently questioned how CWSA can regulate the performance of other operators with whom it is competing in the rural water service marketplace.

18. Ghana Water and Sewerage Corporation (GWSC) at the time
19. Several commentators have stated that separating responsibility for sanitation from water services weakens the synergies between the two.
20. Data from a mapping report on the rural and small-town sub-sector (GSS et al, 2023) found 54% of piped schemes were managed by WSMTs, 23% by CWSA, 10% by small water enterprises and private organisations, a further 10% by community leaders and private individuals, and the remaining 3% by institutions.

Finally, in the years that it took to conclude the revised water policy, donors lacked clear and authoritative guidance behind which to align. The World Bank, for example, known historically as the principal funder of investments in the rural water sub-sector, has had no project in the sub-sector for the past five years. Whether and how this picture will change now that the policy has been formally revised and published remains to be seen. In all of this, however, it is important to note that donor funding had already been undergoing a downward trend following Ghana's transition to lower middle-income status. Nevertheless, donors continue to participate in the sector working group, which contributes to policy discourse in the sector.

2.3.2 Regulatory relations

Regulation of the water services sector is both fragmented and incomplete. The regulatory function is divided between multiple agencies, and the legal and regulatory framework for rural water supply is currently undergoing reforms. Among the agencies performing some form of regulatory function, the Water Resources Commission (WRC) is responsible for regulating and managing water resources in Ghana to ensure the availability of raw water with the required quality and quantity for rural and small-town water supply; and the State Interests and Government Authority (SIGA) signs a performance contract with CWSA to ensure efficient operations. The Food and Drugs Authority (FDA) regulates the production of packaged water and drinking water must meet the Ghana Standards Authority (GSA) requirements for potable water. While CWSA develops guidelines for the delivery of rural water services, these are rarely enforced. Finally, the assemblies grant permits to enable service providers to operate within their jurisdictions and are responsible for ensuring that individuals and operators do not pollute the surrounding environments and aquifers. Most of the policy, strategy and guidance documents are due to be revised in line with the new role of CWSA.

In practice, regulatory oversight in the water sector has been carried out by the Public Utilities Regulatory Commission (PURC) but this has been limited to urban supplies (i.e., GWL's 90 or so systems). Under this arrangement, PURC has been responsible for approving and enforcing urban tariffs, monitoring urban water quality in line with standards set by GSA, managing client complaints and protecting consumer rights, and auditing urban treatment plants. Because of the distinct urban focus, CWSA has been largely excluded from PURC's oversight thus far. Furthermore, apart from an office at headquarter level, PURC is only present in 11 of the country's 16 regional capitals. The agency is thus absent from most districts where the majority of rural communities and small towns are located. Besides, no single regulator is explicitly identified in the revised water policy to replace the assemblies as joint regulator of the rural water sector. With PURC's mandate being limited to public sector operators under the PURC Act, 1997 (Act 538), the private sector – which the revised water policy foresees as a strong co-provider – would miss PURC's scrutiny unless deliberate measures are taken to bring it under that regulator's authority. Furthermore, responsibilities for licensing and setting technical standards are currently outside PURC's remit.

2.3.3 Relationship with other service providers

In its relationship with the urban water utility (GWL), CWSA appears to be disadvantaged. The latter's service areas have historically overlapped with CWSA's in the large grey space encompassing peri-urban settlements and small to medium-sized towns. The Ecopsis (2024: 17,22) assessment tells of CWSA's coverage, including some towns with populations of 20,000 people. Also, high rates of urbanisation (of the order of over 3% per annum) are perceived to play to GWL's advantage at the expense of CWSA. An implication of the trend towards urbanisation is that systems that CWSA has invested in building or rehabilitating at great cost soon cross the population threshold for rural settlements, necessitating their assimilation by GWL, risking a vicious circle of financial stress for CWSA. Such a situation risks engendering inter-agency conflict along with the duplication of operations. Beyond these, GWL indicated that they were not adequately consulted about the reforms in order to jointly assess the risks that these changes can have on their work and that of other actors in the water sector and to allow CWSA to learn from their experience in managing a public utility.

The role of the private sector in delivering rural water services is acknowledged by CWSA, based on a clear recognition that the latter cannot meet the water needs of the entire rural sector single-handedly. This acceptance has been accompanied by an expansion in the number and diversity of private operators entering the space. In the Western Region, for example, only one-quarter of the 43 small town systems are under CSWA's management. Some of these operators are investing in innovative solutions including the use of smart taps, pre-paid meters, solar pumps, digitalisation and cluster-based management (see, for example, Annex 2). CWSA and other state actors, however, emphasise the imperative of effective regulation to ensure that all providers conform with the laid-down standards regarding resource abstraction and service reliability, safety and pricing. Others are concerned that CWSA's increasing attention to revenue generation may end up relegating the burden of provision in the most challenging geographies to the private sector. Despite some misgivings, discussed in the succeeding sub-section, private sector utility operators likewise welcome having CWSA in the provider space, as they see it as an opportunity to professionalise service delivery practices in the rural water sub-sector. To that end, WSUP is supporting CWSA to develop its commercial arm and to acquire critical skills for mapping, digitising and registering the assets it is managing. Not only is this immediately improving CWSA's capital position but should also facilitate a better management of the organisation's systems, resulting in a more reliable service delivery regime and improved revenues.

WSMTs are torn between aligning behind CWSA's direct management of the water systems and opposing it. While those with well-functioning facilities and healthy revenue streams are against turning over their assets to CWSA, communities with weak and broken systems are eager to transfer the assets to CWSA. It also remains unclear what measures would be available to communities, under the reform package, by which they can hold CWSA accountable for delivering the services expected of them effectively. Furthermore, the fact that WSMTs remain voluntary and unregistered continues to make it difficult to hold their members accountable for the stewardship of the operations in their charge.

2.3.4 Relationships with MMDAs

Allocation of roles between CWSA and the MMDAs is anything but settled. CWSA intends to rely on the national development planning system – particularly the MMDAs, their District Works Departments (DWDs) and the Regional Coordinating Councils (RCCs) – to take on new or additional technical functions that are not part of their existing operations and for which they are not ordinarily resourced. However, there are concerns that actors like the Ministry of Local Government, Chieftaincy, and Religious Affairs (MLGCRA) and the assemblies have not been engaged sufficiently in conversations to enable the parties to fully pre-empt the challenges and define

how this may be done without disruption to their statutory systems. On the one hand, stakeholders agree that the assembly would retain the role of development authority in this scenario. This would require them to lead on investment decision-making and on the allocation of resources, as well as support land acquisition and conflict resolution. However, there remains considerable ambiguity when it comes to the roles of service authority, asset holder and monitoring lead. These had previously been seen as part of the assembly's functions. However, as CWSA shifts towards becoming a utility, these roles are becoming increasingly blurred. Concerns have also been raised about capacity challenges (both in terms of staffing and qualifications) in the District Works Departments of the MMDAs, with some 80% of their Water Units either lacking staff or only having sub-professional officers (not qualified engineers) in place (Aguaconsult, 2017:19). Also compounding the problem is that not all districts are even aware of the revised national water policy.[21, 22]

2.4 Discussion: gaps emerging from the findings

2.4.1 Gaps in facilitation

CWSA's transition to a utility role is perceived to have worsened a pre-existing inefficient situation regarding facilitating MMDAs in planning water projects and providing education support to local communities. Where the assemblies and their WSMTs/ communities previously received dedicated technical backstopping in the form of training and service monitoring, this is generally no longer the case. As a result, newly constituted WSMTs are not receiving vital training or acquiring the capacity to facilitate hygiene awareness among their constituents, and facilities are not being tested or reported on as expected.

Quite clearly, gaps remain in terms of who will take up the role of technical support to the assemblies in areas such as service planning, procurement and contracting (particularly, with the revised water policy promoting private sector involvement in delivering safe water services). Other facilitation-related concerns cited in the field interviews relate to supervising construction, training (and re-training) WSMTs and community hygiene education, and monitoring provider performance and water safety in communities where CWSA will not be present as a utility.

2.4.2 Gaps in regulation

Currently, there are no clear arrangements in place for regulating the rural water sub-sector. Stakeholders expect an effective regulatory function to address a diversity of concerns on controlling abstraction, approving/ setting tariffs and protecting customers' rights to safe and reliable services through continuous performance monitoring and enforcing compliance. Other functions would include ensuring a level playing field for operators and managing conflicts between providers and consumers, and between operators over service areas and other matters. Other regulation-related concerns identified during the fieldwork include damage to providers' systems arising from construction activity in newly developing areas, the increasing pollution of water sources with toxic substances from illegal mining activities, and illegal interference with devices such as service meters. These remain largely unregulated for now.

21. An informant in the Western Region stated that MMDAs are no longer budgeting for water services but rather expecting CWSA to provide the relevant resources.
22. From interviews with some NGOs, based on their interactions with various MMDAs.

At the national level, participants were unanimous about PURC being the institution best suited to perform such a diverse regulatory role effectively. However, this would require a change in their legal mandate. For the local level, a minority of stakeholders, argued that the assemblies, as the devolved governments, are best placed to fulfil the regulatory role at that level. While several of the other stakeholders interviewed championed a greater monitoring role for the MMDAs, they stopped short of prescribing a regulatory one, noting serious deficits in their technical and logistical capacities.

Stakeholders noted that a water services framework and related regulatory instruments remain missing for the rural and small towns sector. Many of the organisations interviewed expressed a need for the sector to have a licensing authority alongside some legislation prescribing benchmarks for entry into the service delivery space and providing guidance on the conditions and quality standards that service providers must comply with to retain their operating licences. The absence of such a mechanism contrasts with the situation in the energy sector, where a clear licensing regime exists to regulate market entry and service delivery.

PURC has proactively offered some initial reflections towards a water services framework in the form of a position paper titled "Framework options to improve efficiency in water utility service provision." However, the paper, which was presented to MSWR in 2022, has remained pending at the sector ministry since then. Among other things, the paper calls for legislation defining the scope of operation of all drinking water suppliers along with provisions for their licensing and regulation. The paper further notes a lack of codified technical standards for regulating water service quality, for example, for the performance of production plants, pipe materials, pipeline depths and rights of way. It similarly notes a lack of policy clarity regarding the management of point sources and piped systems that CWSA will not be taking over. A key inference from the paper is that in the absence of a licensing regime and codified standards, effective regulation will be impossible.

2.4.3 Issues on the equity front

Concerns have been raised that commercial pressures associated with CWSA's evolution into an autonomous utility will force the organisation to strategically prioritise the more lucrative segments of the market at the expense of sparsely populated and hard-to-reach areas.[23] Thus, how to strategise to reach Ghana's last-mile communities with safe water services is an important question that ought to engage the minds of policymakers as CWSA continues its journey towards becoming a formal utility. Some stakeholders have suggested the inclusion of equity indicators when disbursing funds for rural water investments. A further suggestion is for strong civil society involvement in project steering committees to enhance equity monitoring.

2.4.4 Technical capacity challenges

Currently, CWSA has water safety specialists stationed in each region as well as at some of its larger systems. However, their effectiveness is reportedly hindered by logistical challenges. For now, the Western Regional directorate acknowledges that it struggles to respond to customer complaints about downtime on the network. This is largely due to a combination of funding challenges and shortfalls in local electro-mechanical capacity. Many of the region's technical personnel, who were previously engaged in other tasks, are not entirely familiar with the practical problems they are suddenly encountering on the fragile systems they are being required to manage.[24]

23. The move towards autonomy will require CWSA to finance its salaries and activities from operational revenues. Meanwhile, CWSA's latest Strategic Investment Plan (2021-2024) already envisaged recruiting an additional 3,200 staff, a situation that would undoubtedly increase its recurrent expenditure burden significantly.
24. At the same time, debt recovery has been difficult, both regarding the legacy debts – mainly to the Electricity Company of Ghana (ECG) and Northern Electricity Distribution Company (NEDCo) as well as on the recurrent debt front.

2.4.5 Tariff challenges

Tariff decision-making has been contested over the years, with some service providers asserting that rates set/approved by state authorities (typically PURC and the MMDAs) tend to be artificially low and sub-economic. Efforts to achieve universal access to safe water has been accompanied by some debatable tariff thinking. Political considerations and the argument that the poor are unable to afford economic prices for this human right have historically implied that, even for the high-performing service providers, tariff increases have generally remained below the inflation rate. There is evidence that poor households decrease their reliance on piped sources significantly during the rainy season, opting to harvest rainwater instead, suggesting an elasticity of demand for safe water. For these reasons, some believe that the answer is to deliver water to poor communities free of charge to protect their health. While others argue that tariff adjustments should remain below the inflation rate, assuming that service providers can continue operating effectively even with limited funding.

However, such thinking risks perpetuating a regime of inadequate revenue streams.

Over the years, Ghana's public utilities have often acknowledged operational inefficiencies, including service quality issues, product losses, and revenue leakages. These challenges can weaken the case for increasing tariffs in certain segments of the market. At the same time, service providers argue that current tariff-setting practices do not fully account for their legitimate costs and investment requirements, which they see as essential for improving performance and ensuring long-term sustainability.

Even though not all service providers' operations are characterised by the same level of inefficiency that public utilities are often accused of, some social enterprises complained that they are pressured to abide by tariff levels similar to those for the public utilities, despite their going the extra mile to ensure services of the highest standards. It is, thus, understandable that these private providers are critical of what they perceive as subjectiveness in tariff setting. It is important to appreciate that if revenues consistently lag behind expenditures, service providers are unlikely to prioritise facility maintenance or be able to meet legitimate capital replacement/asset lifecycle costs. The result of flawed tariff policy and practice is that facilities will continue to deteriorate, with higher replacement costs in the long term. Clearly, the kind of thinking that effectively prioritises equity over accessibility and operational sustainability is counterproductive and undermines the goal of a resilient sector delivering universal access to safe, reliable and sustainable water services.[25]

Aguaconsult (2017: 16) and Ecopsis (2024: iii) believe that there is room for leveraging tariff revenue as a source of financing rural water supply, though one might add that cross-subsidies would certainly be helpful. The Ecopsis report cited the increasing use of sachet water in rural areas (with a nearly five-fold rise between GSS's 2010 and 2021 censuses), and at significant cost too[26], as an indication of willingness to pay for drinking water services at private provider rates. If, as envisaged in the revised water policy, the private sector is to invest in developing rural piped water systems and operate as utilities, then it is important that concerns over sub-economic tariffs be addressed objectively and holistically, rather than solely on the basis of the right to safe water. For now, and based on the evidence from the study, actors applying market-based models in the rural water utility space are unable to fully cover CapManEx from the revenues they generate, despite some of them delivering superior services. At best, NGOs or small water enterprises are able to cover their operational costs and possibly some additional expenses. These actors are usually funded by grants, which pay for the capital investment costs. With the disbanding of the United States Agency for International Development (USAID), one of the largest donors providing grants to NGOs and government, actors may have to rely solely on user tariffs and/or loans.

25. Curiously, the state does not deploy the human rights logic in setting prices for agricultural staples.
26. The cost of sachet water averages over 100 times the price of an equivalent volume purchased from GWL.

3 Conclusions

The study concludes that CWSA is actively performing the functions of a rural utility in over 200 small towns. To that end, it has the backing of the revised water policy. However, the issue is complicated by the fact that the revised policy and CWSA's de facto role as a utility still lack explicit legal backing, as relevant legislation has not been amended or enacted to align with the new role. In addition to questions on its legal mandate t as a utility, CWSA also lacks formal ownership of the water service assets it has taken over. Consequently, its claim to the revenue from these assets and operations may also be questioned.

CWSA continues to experience internal weaknesses in a wide range of areas including non-revenue water, low energy efficiency, legacy debts, aging assets, and an incomplete mapping of its assets and networks. These drawbacks undermine its potential to operate as a financially viable utility. While some of these issues are currently being addressed to varying degrees, CWSA can only become truly effective and resilient once the pressing concerns around the legal framework and its formal relationships with other service providers are resolved. Unless these issues are resolved - including the provision of a comprehensive and credible services framework that clearly defines CWSA's service area in relation to other service providers over the medium term[27] - CWSA will be unable to plan effectively for the future and will remain operationally and financially vulnerable.

Finally, its relationship with other service providers (e.g., GWL and the diversity of private sector and community-based operators) is not clearly defined in law, due in part to the absence of legal provisions for demarcating or defining service areas. The current policy does not provide such a definition. Influenced by the discrepancies mentioned above, CWSA's relationships with other sector stakeholders (especially regulatory bodies, other service providers and MMDAs) remain unclear. The revised policy does not define in sufficient detail what should happen with CWSA's previous roles, nor who will perform other key roles of service authority, asset owner and regulator in relation to CWSA. These issues create uncertainty around sector functions and leave other stakeholders unsure both about the desirability and feasibility of the utilitisation process, but also what the next steps should be. The study also finds that the lack of strong national leadership and funding during the policy engagement process has resulted in limited buy-in for the reform.

27. Such a framework would also be expected to include guidance on water extraction, use and licensing.

4 Recommendations

Based on the study's findings, three scenarios are presented and described to guide a more structured and informed reflection on the future direction of the reform agenda. The improvements required under the respective scenarios are informed by the principles of the World Bank's Water Utility Turnaround Framework[28] which provides insights and guidance on the drivers of good utility management and an effective governing environment. Sound utility management involves technical and commercial operations, organisation and strategy, human resource management, and financial management. The legal framework and governance in which the utility operates shapes its governing environment. Each of these options has pros and cons and implications on the likely outcomes of this reform agenda in the short to long term.

4.1 Scenarios to inform the way forward of the reform agenda

The scenarios below, in increasing order of effort, disruption and potential effectiveness, are:

1. "Business as usual", with CWSA continuing to operate as a utility based essentially on protocols, without the necessary changes in its legal status and regulatory environment.
2. Legal and governance support for CWSA to formally become a utility.
3. Sector-wide reform, defining the framework for all kinds of service providers within the rural/ small-town service delivery space.

Scenario 1: "Business as usual", with CWSA continuing to operate as a utility based essentially on protocols, without the necessary changes in its legal status and regulatory environment.

This scenario represents the least extent of change for the existing CWSA in the sense that there would be a partial evolution of the agency and it would be retained largely intact. The CWSA Act (564) and LI 2007 will still be in use and CWSA will continue with its facilitatory, regulatory and sector coordination and reporting functions for the rural and small-town water sector.

With the ongoing revision of the National Community Water and Sanitation Programme (NCWSP) into the 'Community Water and Sanitation Reform Programme', CWSA will assume responsibility for utility management of small town and larger, more complex water supply schemes, while continuing with its facilitation role in support of MMDAs and WSMTs for the smaller schemes and point sources. The NCWSP is yet to be approved, however.

This option essentially combines different functions in one model and may be considered as a transition stage towards becoming a formal utility. To effectively align with its new utility management role for operating and managing small-town and other piped schemes, CWSA would need to strengthen the technical capacity of its staff and continue to restructure the departments.

28. Soppe, Gerard, Nils Janson, and Scarlett Piantini. 2018. Water Utility Turnaround Framework: A Guide for Improving Performance. Washington, DC: World Bank

A key risk with this model is a potential conflict of interest as CWSA is expected to combine the roles of a service authority and service provider. This blending of roles can be expected to encounter resistance from other stakeholders in the sector.[29] As indicated in the findings, funding for existing and new facilities remains a challenge in the transition phase. It is unclear whether there will be changes for the smaller scale piped schemes and point sources managed by the WSMTs.

For this scenario to be effective, there should be a fuller and more intentional implementation of the existing legal provisions in terms of standard setting, quality assurance, and technical support to the MMDAs. CWSA also needs to build on the relationships with those MMDAs in which it is active now.

Furthermore, CWSA would need to work on improving public and stakeholder support for its transition agenda by demonstrating the feasibility and relevance of this model through short-term improvements in its performance.[30]

To make the organisation fit for its expanding role, new skillsets are being identified and acquired (e.g., around technology use and commercialisation) and additional system-level issues are being considered. This focus on re-skilling ought to be further encouraged and supported.

Scenario 2: Legal and governance support for CWSA to become a utility.

Under this scenario, CWSA would transition formally to a utility model. The goal will be to provide universal access to safe, affordable services to its customers in a financially sustainable way. It may involve splitting CWSA into two legal entities: a utility and a separate facilitator, similar to Rwanda's Water and Sanitation Corporation (WASAC) – possibly under a legally established entity operating under a unified brand. Key actions required to effectuate this scenario would include:

- Passing an Act of Parliament authorising and governing the utility
- Demarcating service areas for the medium term, along with a process for updating the demarcation; and recognising that certain areas will remain under other service providers[31]
- Extending regulation to CWSA as the utility for the demarcated area
- Initiating a process to assess CWSA's business feasibility and prospects in order to inform future growth
- Establishing a formal relationship between MMDAs and CWSA that defines how CWSA will provide services under the district's jurisdiction within the context of Ghana's decentralisation policy[32]
- Setting tariffs
- Initiating a utility turnaround process (formally) with clear Key Performance Indicators (KPIs) based on the framework

29. From the study, such resistance is likely to be subtle, in the form of weak support, rather than overt hostility.
30. Currently, CWSA does not only do poorly on energy efficiency; its legacy debts with ECG and NEDCo, along with the lack of credible payment plans, mean that those utilities occasionally disconnect power supply to CWSA's systems, with adverse consequences for reliability and customer confidence. Owing to the age of the systems CWSA is inheriting, leakages (and, thus, non-revenue water levels) tend to be high. System losses are further exacerbated by the fact that illegal miners frequently steal water from the organisation's systems for their gold extraction processes, further undermining CWSA's revenues and financial integrity.
31. Global best practice suggests that it may be best to combine rather than completely separate urban and rural localities when demarcating service areas. Such an approach makes it possible to achieve greater economies of scale, along with related cross-subsidisation of less endowed localities, than would be the case with solely rural service areas. It also better pre-empts the situations where CWSA invests heavily in expanding and extending services, only to see such towns grow and be reclassified as urban, automatically warranting their transfer to GWL to CWSA's financial disadvantage. Such a scenario is particularly relevant, given predictions that Ghana's urbanisation rate could reach 70% by 2050. These considerations ought to be incorporated in the water services framework to guide practice in the sub-sector.
32. Due to the ongoing reforms, there is a need to clarify the role of the MMDAs and the regulatory mechanism for rural water service delivery (GWASHSDP)

According to the World Bank's Water Utility Turnaround Framework, to operate effectively, CWSA will require competent management, and an external environment characterised by:

- Strong legal framework. The utility's legal framework should establish clear rules for providing water and sanitation, including comprehensive guidelines for utility performance, property rights, corporate governance, and duties and responsibilities
- Accountability framework. The utility should enjoy a clearly defined accountability framework that incentivises effective decision making and resource allocation
- Minimal level of autonomy. The utility should have a minimal level of managerial autonomy to make decisions based on efficiency and strategic foresight. Autonomy can be compromised when political or other vested interests interfere with management decisions in the utility
- Government champion. If the utility operates in a dysfunctional political economy, the water utility will benefit from a government official who prioritises improvements in the sector and helps secure the resources needed to achieve them
- Embedded stakeholders. The utility should embed all stakeholders that can affect the supply and demand of water and wastewater – for instance, the government, customers, labour unions, and donors. Embedding stakeholders prevents predation and increases transparency. The latter reduces information asymmetries and reassures investors
- Predictable long-term tariff-setting regime. A predictable regime for setting and adjusting tariffs allows for long-term planning and investing
- Clear service standards. The utility should know the water and wastewater service standards for which it is held accountable
- IWRM. A water utility should be integrated into the water resources management cycle of its area for both abstraction and discharge of water and wastewater

Scenario 3: Sector-wide reform, defining the framework for all kinds of service providers within the rural/ small-town service delivery space.

Under this scenario, the restructuring of the sector will not be limited to CWSA but will detail equivalent reforms for the other service providers, including:

- Formally establishing them as service providers, licensing and possibly aggregating them[33], and demarcating their service areas. To that end, the revised water policy suggests that, given the existence of other management models elsewhere, it would be appropriate to commission a review to determine the applicability of these other models to the remaining systems outside the utility model of CWSA[34]

33. There is strong support within PURC and CWSA for aggregating small operators into licensed, self-regulating associations. If supported with clear KPIs, this approach holds potential for enhancing mutual accountability and facilitating efficient regulation
34. One proposal regarding service area demarcation is to use the model applied in Kenya and Uganda, whereby delivery rights for each area are typically assigned to a single primary provider who is accountable to the sector regulator. Based on clearly defined guidelines, principals would be permitted to outsource management functions (of principal-held assets) or invest in developing services to other licensed operators who will report to the respective principal providers and be supervised by them. Relatively low-cost options, such as limited mechanised schemes (LMSs) and point sources, would be expected to be covered under such an outsourcing arrangement. CWSA's preference is for the primary rights to be restricted to the two public utilities – GWL and CWSA. Citing historical difficulties in demarcating service areas between CWSA and GWL, the organisation argues that it would be even more challenging to include the thousands more private operators in the mix. However, this preference would require more thorough and objective reflection. For the demarcated service areas assigned to CWSA, the appropriate type of agreements will need to be established between the MMDA and CWSA. CWSA can then enter into a process of utility performance improvement, with a clear business plan for the defined service area.

- Providing a legal basis for these service providers (through an Act of Parliament) or through the development of a framework for water services (Water Act). The Water Act could allow for the other service providers to be licensed and provide permits to operate
- Extending regulation from PURC to CWSA and all service providers. In this regard, the regulation of water quality, tariffs, quality of service, and the activities of private sector providers (such as self-suppliers, vendors, and tanker operators) need to be clarified
- Deliberate process of aggregation informed by viable service areas
- Formally clarifying the asset holder role, and what it means (in a legal sense)
- Another issue raised in the revised Ghana water policy is that of asset ownership. It noted that, during the transition period, a decision has been taken to confer asset ownership on CWSA with respect to all publicly funded small-town water systems despite the contributions to the capital cost of these facilities made by DAs and communities[35]

This scenario would entail reforming not only the rural water sub-sector but moving away from the artificial urban/rural divide to employ a more liberal service area perspective. Simultaneously, it will be important to predict the effect of the reforms on the roles and capacities of the other value chain actors so that capacity support and collateral adaptations can be planned for them and delivered effectively.

4.2 Milestones

While there is a general preference among sector stakeholders to move promptly to the third scenario, the process will require meeting a number of critical milestones. This section identifies and elaborates on these milestones.

Milestones under scenario 1.

This scenario is the current one. For it to be more effective, the following milestones will need to be met:

Milestone 1.1: CWSA undertakes short-term improvements in its performance, in order to improve public and stakeholder support for its transition agenda by demonstrating the feasibility and relevance of the transition. Concretely, this means setting short-term KPIs to track improvements in its performance, meeting those indicators and communicating these to the key stakeholders. This milestone is also a prerequisite to embarking on scenario 2.

Milestone 1.2: CWSA completes the restructuring of its departments, ensuring all positions are filled by staff with the required skills and expertise.

Milestone 1.3: CWSA actively reverts to its role in meeting its legal provisions in terms of standard setting, quality assurance, and technical support to the MMDAs. This is needed to ensure that CWSA's facilitation role continues while it proceeds with the process of becoming a formal utility.

Milestones to be met in scenario 2.

Milestone 2.1: Passing an Act of Parliament to establish and govern CWSA as a utility. This is the critical milestone for CWSA to move to scenario 2. To get such an Act of Parliament passed, substantial work will be required in formulating the applicable law, detailing it, and getting the necessary political support. Critically, the law needs to define clearly what CWSA becoming a utility would entail, while guaranteeing its role as facilitator. One the most

35. Ownership was originally conferred on the beneficiary communities through Facility Management Plans (FMPs) signed in respect of these systems.

promising options for that would be to split the organisation into two legal entities under one Group set-up, with one entity responsible for the utility service and the other entity retaining responsibility for the facilitation function.

Milestone 2.2. Extending PURC's mandate to include regulating CWSA as a utility. This milestone needs to go hand-in-hand with the previous one. Some of the initial regulatory powers that need to be assigned to PURC under this milestone are: 1) tariff regulation (i.e., the process for establishing, updating and approving tariffs), and 2) demarcation of service areas between the service providers. Other regulatory functions such as performance regulation and related redressing of complaints may follow later.

Milestone 2.3. Explicitly demarcating the service area for CWSA. This would need to be one of the first regulatory acts for PURC. Ideally, the service area needs to be defined for the medium-term, so that CWSA has some certainty for some time. A sub-milestone would entail establishing a process for defining future demarcations.

Milestone 2.4. Establishing a formal relationship between CWSA and the MMDAs that fall within CWSA's service area. The details of the content of this relationship will depend on the Act of Parliament and the extent of the regulatory powers assigned to PURC.

Milestone 2.5. Initiating a utility performance improvement process with clear KPIs. These improvement KPIs also need to be set by PURC and reported on by CWSA.

Milestone 2.6. Assessing CWSA's business feasibility prospects in order to inform future growth. It is likely that in the short to medium term, the scale of CWSA's operations will be such that the business is not fully self-sustainable and will need to be supported with public subsidies. Through subsequent growth, scale can be achieved. A milestone in that respect is a study that outlines the trajectories for growth (in customers and service area) and the specific steps to be followed.

Milestones for scenario 3.
This scenario implies a more complete overhaul and reorganisation of the water sector. This will require a whole set of actions. Here, we limit ourselves to proposing the key milestones, to be complemented with other actions.

Milestone 3.1 Passing of a Water Supply Services Act by Parliament. This would complement the Act amending CWSA's mandate, mentioned above under Milestone 2.1. The passing of such an Act will require substantial preparatory work in drafting the Act, stakeholder engagement around it, reviews and adjustment, as well as getting the necessary political support for it. This means there are a large number of sub-milestones that would need to be identified under it.

Milestone 3.2. Extending PURC's regulation to all service providers that are recognised in the new Water Supply Services Act. Similar to what is mentioned under Milestone 2.2, this would need to critically include tariff regulatory powers and the power to demarcate service areas.

Milestone 3.3. Defining the process for establishing the demarcation of service areas for all providers.

After that, further processes for performance improvement and aggregation of service areas may follow. However, such detailed milestones are best defined in due time rather than from the outset.

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Annexes

Annex 1. Terms of reference

Research study on formalising relationships between CWSA and private operators, WSMTs and other actors: Rural Water "Utilitisation" Project (R-WUP), Ghana

Introduction

The "Rural Water Utilitisation Project" (R-WUP), Ghana funded by the Conrad N. Hilton Foundation (2022-2024) is to support the Community Water and Sanitation Agency reform process to establish an effective rural and small-town water utility. The project is geographically focused on managing water systems across the Western Region and with the capacity to expand support to service coverage across the country.

The project objectives are:

- Objective 1: Develop CWSA internal organizational change management process to drive the transition towards a rural utility organization
- Objective 2: Improve the operational efficiency in the management of water systems
- Objective 3: Develop infrastructure for delivering safely managed water services
- Objective 4: Support sector strengthening and learning

IRC Ghana's role in the project is to support sector strengthening and learning. This involves support in improving the data management on water systems, partnerships and mechanisms for coordination and learning. This will contribute to increasing the clarity on CWSA's approach to becoming a rural utility and the partnerships with other sector organisations.

As part of this process, IRC Ghana seeks to assess the service delivery arrangements between CWSA and the service providers (private sector, NGOs and WSMTs) in the reform process to transition from facilitator to a water utility.

Background

Since 1998, the Community Water and Sanitation Agency (CWSA) has been the facilitator of the development of WASH infrastructure in rural areas and provider of technical support to communities, who are the service providers under the community ownership and management (COM) model. The COM model has been applied for over 20 years, and water coverage has improved from 27% in 1990 (World Bank, 2010) to 62% in 2020 (CWSA, 2021).

While first time access thus increased, numerous studies highlight that many community-managed rural water supply systems become non-functional ahead of time. Many of these systems are not managed sustainably and suffer from poor technical and financial management, as reflected in frequent breakdowns, poor water quality, high Non-Revenue Water (NRW), and high energy costs, poor accountability for revenue and inadequate cost recovery and high levels of indebtedness of service providers.

CWSA initiated a policy reform in 2017, to expand its mandate to include the management of piped water systems in rural areas, and thus in effect become a rural utility. The reforms seek to improve operational efficiency and sustain water service delivery of piped supplies in rural communities and small towns. Some progress has been made in the reform process, but much remains to be done to transform it into a viable rural utility.

In parallel, a number of (semi)-formal service delivery models have emerged. These includes private providers (individuals and organisation), safe water enterprises (see figure 1). These have different degrees of formality, in terms of the relation with service authorities (MMDAs), and the way these relationships are given shape (for example in terms of contracts, service agreements, performance indicators, etc.).

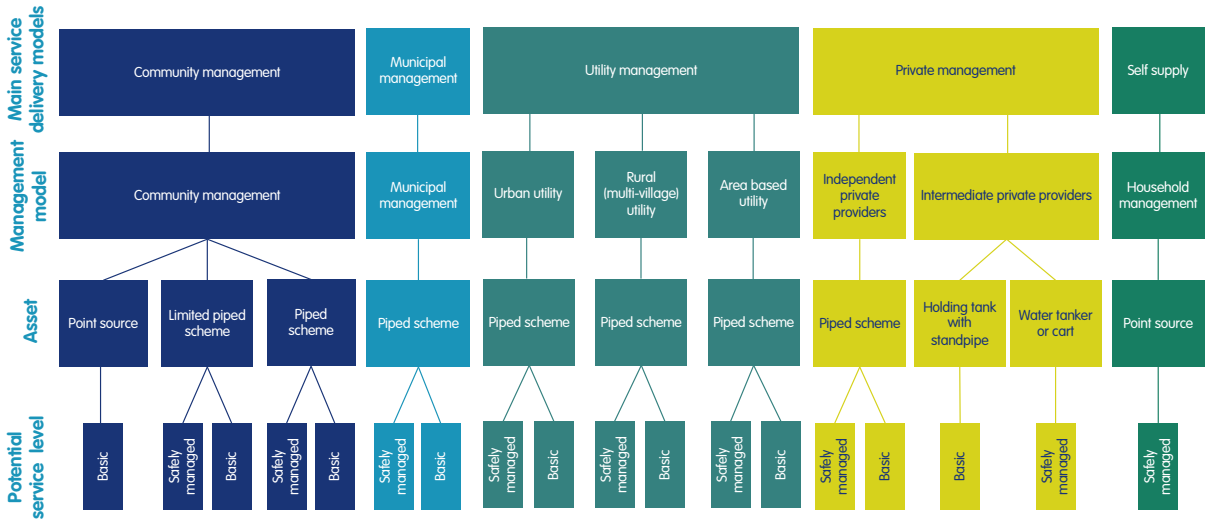

FIGURE 1: BROAD GROUPS OF WATER SERVICE DELIVERY MODELS

The findings from the water services mapping in the Western Region (2023) report confirms this broad range of formal and informal service delivery models for providing piped water supply services in the Western Region, reflecting the diverse needs and circumstances of the population.

The most common type of provider is a community management scheme, which is managed by a group of local people. Community management schemes account for 50% of water service provision in the region. Ghana Water Company Limited (GWCL), the national utility, is responsible for providing water services in urban areas, providing water services in the Western Region through seven (7) schemes. CWSA is providing water services through 15 schemes previously under community management. The Ghana Water Company Limited (GWCL) and the Community Water and Sanitation Agency (CWSA) together are estimated to provide water services to about 15% of the population in the region.

The remaining are served by private organisations and NGOs who play a role in providing water services too and account for 18% of the provision. The findings also show that there is a lack of clear governance structures for many of the private and community managed water schemes. This can lead to problems with accountability and regulation.

The type of service delivery model is closely related to the type of water facility being managed (handpump, LMS, piped supply) and the setting (rural, small town), as the type of technology and setting provide more or less opportunities for professionalisation.

Whilst there are efforts ongoing – e.g. through the recently approved policy – to better formalise (and eventually regulate) these models, also in relation to the reforms of CWSA itself, this reform is taking time, and it is not clear what exact direction it will go. That in itself also limits taking clear policy directions, such as PPPs (Ecopsis and Maple Consult, 2024). Whilst that direction remains unclear, there is need and scope to improve on some of the practices, for example in terms of the relation between the different types of service providers (CWSA, SWEs) and service authorities.

Objectives
The key questions which the research seeks to clarify are to:

- understand the changes in the roles and responsibilities of actors since the reform (i.e. CWSA transitioning to become a service provider)
- identify the gaps created as a result of the change especially in relation WSMTs & private sector and the services they used to receive from CWSA – e.g. technical support, regulation of standards and ensuring quality water services
- propose alternatives on how these gaps can be addressed and by whom.

The research study will involve the:
1. Review documented service delivery arrangements in Ghana and other African countries
2. Review the functions and relationships between CWSA, other service providers, MMDAs and other actors in the water service delivery system in the Western Region
3. Identify existing service delivery models and practices and assess their performance and capacity to provide water services sustainably to the service users
4. Propose one or more improvements to the existing models and practices and/or alternative service delivery models for different types of technologies for review in multi-stakeholder workshops designed to inform the development of a framework to formalise relationships between CWSA and private operators, WSMTs and other actors.

In the above, it is recognised that the sector has been in transition for a while, and it is not clear how long that will remain. Therefore, some of the proposed practices may be temporary in nature, whereas others may have the potential to be fully established within the reform process.

Methodology
The research/study will involve identification of key information from the review of relevant documents. Following the secondary data review some selected interviews will be carried out with the key actors, CWSA and the service providers in the Western Region to understand the relationships between CWSA, private operators and Water and Sanitation Management Teams (WSMTs) within the transition and suggestions for the future.

Through a few working sessions of the consultant team, drawing on the findings, articulate one or more models or improvement practices and alternatives. The recommendations and options on the service delivery arrangements will inform consultations with sector actors and provide options to inform the development of a framework to formalise relationships between CWSA and private operators, WSMTs and other actors.

Deliverables

A report that clearly articulates and details one or more options for improvements in the practices to the existing service delivery models and/or alternative models.

Timelines

The study will be carried out between from November 2024 to March 2025. The milestones are captured in the schedule below:

Activity	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25
Review of existing information on the service delivery arrangements					
First conceptualisation of the alternative models and practices being applied in Western Region					
Field visits & virtual interviews					
Identification and conceptualisation of alternatives through a number of international working sessions of the consultant team, followed by sessions with stakeholders					
First draft report					
Feedback session with IRC & partners					
Submission of final report					

Contacts

The consultant will work with the IRC team in Ghana and the Netherlands to carry out the research. The core team include, but are not limited to:

1. Mrs Vida Duti – Country Director, IRC Ghana - To provide technical oversight on the study and support to the discussions at the national level with government and donors.
2. Mr Stef Smits – Co-director | Growth Hub, IRC - To provide inputs into the inception discussions and report and to work jointly with the consultant and the other members of the team in conceptualising the alternative arrangements, once the study into the existing situation is completed.
3. Ms Veronica Ayi-Bonte – To provide technical insights on the RWUP project and the WASH sector. To facilitate the meetings, interviews and the process for data collection and validation.

The remaining IRC Ghana team will provide technical insights during the implementation and engagement with stakeholders.

Annex 2. Description of selected private sector models

SWN model:
As an NGO operating in Ghana since 2000, SWN exists to deliver safe water services to rural and small-town communities through sustainable approaches. The organisation's utility model entails building surface water infrastructure and managing it directly and professionally based on market principles. SWN engages MMDAs with unsolicited proposals for long-term (25-year) BOT contracts to deliver piped water supplies through standpipes and individual household connections. Upon expiry of the contract, the assets would be transferred to the MMDA or CWSA.

As a utility service provider, SWN has extended water into homes, schools and healthcare facilities, as well as to some standpipes, and is able to cover all local system operating expenses through tariffs. These tariffs are set through negotiation with the MMDAs based on CWSA guidelines (LI 2007). Profitability and operational sustainability have been aided by proactively extending services to more households, with operational fixed costs remaining unchanged while per capita consumption grows as convenience allows citizens to increase their utilisation. SWN operates a cross-subsidy policy, using tariff revenues from its more profitable systems to subsidise services for its last-mile populations. For now, however, capital maintenance (CapManEx) and support costs are not covered by tariffs.

SWN solutions are in over 150 communities in some 40 districts and serve more than 500,000 citizens with safe, reliable water. Currently, the organisation has over 110 piped systems spread across 10 of Ghana's 16 regions. In the districts where it has a presence, SWN has prior agreements with the respective MMDAs, granting the organisation exclusive rights to deliver its services in target communities. As the service authority, the Assemblies, likewise, have the right to monitor and audit SWN's systems, though this hardly ever happens. This provision has been key to protecting the sustainability of its investments. For reasons of efficiency, each cluster of ten systems is operated by one manager, enabling SWN's operation to benefit from some economies of scale. SWN's model includes using prepaid meters to pre-empt the problem of low billing collection common in the rural water sector. Reliance on solar/ hybrid solar power enables the organisation to significantly lower its pumping costs while enhancing energy stability and continuous operation of the pumps. Community liaison committees (CLCs) are used quite intentionally to elicit customer voice and provide frontline oversight. SWN makes a point of holding at least biannual meetings with the CLCs to sustain their sense of co-ownership, and a share of the operating revenue is returned to them as an incentive. Beyond the CLCs, a customer service representative is assigned to each community with over 300 connections and supports with receiving complaints and resolving issues with meter readings.

KPIs prioritised by SWN include water volumes (production and sale), revenues (at station, cluster and portfolio levels), expenditures (fixed and variable), service uptime and water safety. It also tests its treated water at rates exceeding the national benchmark of once per annum. In addition to quarterly external tests at WRI's laboratory, the organisation conducts monthly self-tests as well as daily tests for residual chlorine. By comparison, the output from CWSA's Essiama production has only been tested twice in four years and that by the organisation's own regional laboratory. Further, all SWN stations in the Western Region consistently pass the WRI safety tests, compared with 75% for the water delivered by CWSA through its piped schemes in the Western Region (GSS et al, 2023:42). At SWN's operation at Teleku Bokazo, which the research team visited, non-revenue water (NRW)[36]

36. This is water that is processed for distribution, but which cannot be accounted for in the organisation's billing system.

was below one percent. By contrast, the NRW statistic for CWSA's Western Region operation of 34% (GSS et al, 2023:47,48). This has been aided by the deliberate decision to retrofit all standpipes with prepaid meters/ automatic teller machines (ATMs).

However, the organisation observes that their supply-side effort will need complementing with further investments in hygiene awareness to improve customer behaviour and ultimately optimise the benefits of the water services being delivered. In some communities, it has also been difficult finding suitably educated individuals to train as local operators. Despite SWN exceeding agreed performance targets, it encounters stiff opposition whenever it seeks to adjust tariffs upwards, even when such proposals would merely cover inflation.

4Ward model:
4Ward is a SWE, supported by Water4, a US nonprofit. The entity began active operations in Ghana in 2015 and aims to contribute actively and persuasively towards ending the water crisis nationally as well as on the wider continent. The organisation focuses its efforts on underserved rural communities and currently operates in five districts. Its model includes engaging MMDAs with (unsolicited) proposals for long-term (up to 20 years) non-disclosure build-operate-and-maintain contracts to deliver piped water supplies (through a combination of "water kiosks" and individual household connections fitted with pre-paid meters) The "water kiosk" (essentially a LMS cum vending station) produces and distributes water to households, schools and healthcare facilities, with a provision for retailing at source through vending spigots managed by local women. The kiosk has a storage capacity of 4,000 litres and services around 200 household connections. A team of one technician and one salesperson is responsible for managing a cluster of eight systems. Here also, the cluster concept enables some economies of scale.

The population threshold for a settlement to qualify for a piped network is 4,000. In terms of technology, 4Ward prioritises using solar (or, alternatively, hybrid) energy to power its production and distribution along with smart meters on its pumps (to facilitate real-time monitoring of the supply end) and pre-paid metering (to address billing and collection challenges). Owing to internet connectivity challenges in the kind of remote communities where 4Ward operates, the technology is backed up by human agents dispersed across the community. Its retailers and agents receive regular biannual refresher trainings to keep them on top of their briefs and ensure their continuing effectiveness.

On the affordability of its services, 4Ward seeks a balanced approach – basically an attempt to cross-subsidise tariffs for individuals, households, schools and healthcare facilities from the higher prices charged to industries. This is somewhat undermined by the small number of industries in rural districts but also because the small size and limited reach of LMSs offer limited opportunities for economies of scale or cross-subsidies. While contending that tariffs must be low enough to enable everyone to access safe water, 4Ward observes simultaneously that many poor citizens do find the money to pay for non-essentials such as alcohol, tobacco and funeral expenses, implying that affordability is also a function of priorities. Ultimately, despite charging higher tariffs than other providers (namely CWSA and GWL) operating at Daboase, customers of the public utilities continue to migrate to 4Ward's network because of its superior uptime and complaint response rates.

Among the KPIs that 4Ward tracks are water safety, NRW, the share of operating costs covered by revenues, per capita consumption on its piped network and number of new connections per annum. Operating expenditures (OpEx) are currently financed mainly through tariff revenues (approximately two-thirds), with grants bridging the financing gap. A similar situation applies for the organisation's capital expenditures (CapEx). In the last year, 4Ward added over 10,000 new household connections to its network, spread across five districts. NRW is 20%,

explained by free services to some social service facilities, typically public healthcare facilities and schools. But for that, the NRW statistic would be virtually zero, a situation attributable to the use of prepaid tokens along with digital monitoring of the system. The daily per capita consumption on its piped network is around 52 litres, and water quality testing takes place monthly in-house, with yearly tests conducted at the GWL Central Region laboratory. Consistently, the treated water samples tested pass both tests.