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Water Governance in Secondary Cities in Togo: Issues and Challenges in Noèpé and Kovié

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ABSTRACT

Although progress has been made nationally in terms of drinking water coverage, access remains a significant challenge in Togo's secondary cities, particularly in Noèpé and Kovié. These areas are experiencing rapid urbanization and sustained population growth, which is putting increasing pressure on often dilapidated infrastructure. This study aims to examine the institutional, regulatory and organizational mechanisms that shape water governance in Noèpé and Kovié, to identify the main obstacles and potential pathways towards equitable and sustainable access to drinking water. The research combined a literature review with qualitative fieldwork, including 67 semi-structured interviews and

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focus groups with institutional actors, municipal authorities and community association. Thematic analysis was used to triangulate institutional discourse, policy documents and community perspectives. The findings reveal that governance is hindered by institutional fragmentation, weak inter-institutional coordination, compounded by centralized governance. Community-based models, although widespread, suffer from lack of professionalization, financial fragility, weak community participation and conflicts interest. Infrastructure deficits, dependence on ad hoc external funding, and limited regulation exacerbate service inequalities. To address these challenges, this study concludes that water governance in secondary cities must be adapted to institutional and regulatory frameworks while taking local specifics into account. Strengthening institutional and community capacities, updating stakeholder mapping, developing participatory governance mechanisms and establishing shared governance mechanisms are essential. Local master plan aligned with urban planning strategies are recommended to anticipate demographic pressures and climate variability. Such reforms would help to ensure sustainable access to drinking water.

Keywords: Water Governance; Secondary Towns; Drinking Water; Institutional Challenges; Togo

1. Introduction

Water is a vital resource and key driver of sustainable development. Yet, despite the global efforts, access to safe drinking water remains a major challenge in many regions. Although progress has been made in improving access to this essential resource, major challenges remain. In 2022, nearly 2 billion people worldwide still lacked access to safe drinking water[1]. Africa is particularly affected, with water security already posing a significant challenge for many African countries[2].

This study focuses on the governance of drinking water in secondary cities, defined as intermediate urban centers that are neither capital cities nor major metropolitan hubs, but play an increasingly strategic role in national urbanization and regional development. These cities are often characterized by rapid demographic growth, informal urban expansion, and limited infrastructure, making them particularly vulnerable to service inequalities. In Togo, towns such as Kovié and Noépé exemplify these dynamics.

To guide the analysis, we adopt a broad definition of governance as the set of formal and informal mechanisms, institutions, and processes through which decisions are made, implemented, and monitored – particularly those involving coordination among public, private, and community actors. Governance encompasses administrative structures as well as the norms, power relations, and accountability systems that shape service delivery. In the water sector, governance determines not only who manages resources, but how decisions are made, how responsibilities are distributed, and how communities participate in shaping outcomes.

Although progress has been made in improving access to water, major challenges remain. Rapid demographic growth is intensifying this pressure: the urban population of Africa is expected to nearly double, from over 560 million in 2015 to 1.1 billion by 2050[3]. In sub-Saharan Africa (SSA), 45% of the population currently lives in cities – a figure projected to reach 60% by 2050[4]. This urbanization trend brings specific challenges in terms of access to drinking water and sanitation services. According to the Organization for Economic Cooperation and Development (OECD), 40% of the urban population in SSA lacked access to basic water services in 2021[2].

While national and international efforts have led to progress, these improvements often mask persistent inequalities – particularly in secondary towns, which are growing rapidly but remain underserved. These towns face unique challenges: informal urbanization, weak infrastructure, and limited access to urban services such as water and sanitation[5]. Public policies have struggled to address these issues effectively, especially in areas where land tenure is insecure and housing is irregular.

In Togo, access to drinking water has improved significantly, rising from 23% in 2005 to 61.5% nationally in 2021[6]. However, this progress is uneven. Urban areas report 60.25% coverage, semi-urban areas 52.88%, and rural areas 69.49%[6]. These figures reveal a paradox: secondary towns, often classified as semi-urban, lag behind despite their strategic importance in national development. These towns are experiencing rapid population growth and urban

sprawl, yet their water infrastructure is outdated, fragmented, or entirely absent[7]. This endangers the health of their populations, the security of their water supply, and the growth of their local economies[8].

Aging water infrastructure is one of the most costly types of infrastructure in cities, posing a significant challenge to achieving Sustainable Development Goals (SDGs) 6 (clean water and sanitation), 11 (sustainable cities and communities), and 13 (combating climate change)[9]. The drinking water distribution network in these secondary towns has a very low yield because of unsustainable land use[10] and outdated facilities. The distribution networks are often the result of poorly documented projects, complicating maintenance and expansion efforts. Financial constraints further limit the ability to extend services to peripheral neighborhoods, where demand is highest[11].

Governance challenges compound these technical and financial issues. The centralization of the management system, combined with community-based management led by the Association of Drinking Water and Sanitation Service Users (AUSEPA) and local committees, impedes infrastructure development[12]. Although this model is intended to bring service management closer to the population, it suffers from a lack of professionalization and coordination. An analysis of public water policies reveals a structural inconsistency: water resource management is separate from the provision of drinking water in urban areas, creating a gap between actual needs and institutional responses[13].

The 2019 communalization, which was supposed to strengthen local governance, paradoxically further fragmented administrative structures, without sufficient support in terms of clarifying roles and responsibilities[14]. This poorly anticipated territorial upheaval has led to institutional confusion that hinders the efficiency of public water services. Added to this is a glaring weakness in local capacities, both human and technical, and an allocation of resources that is often arbitrary or poorly justified[5,15]. As a result, investments in infrastructure are not only inadequate but sometimes counterproductive[5], permanently compromising equitable access to drinking water.

These problems are particularly acute in grey areas – territories that are neither fully urban nor rural (**Figure 1**). These zones escape the logic of traditional planning and fall between the cracks of national and community systems. They reflect the tensions between demographic growth, informal urbanization, and evolving local governance.

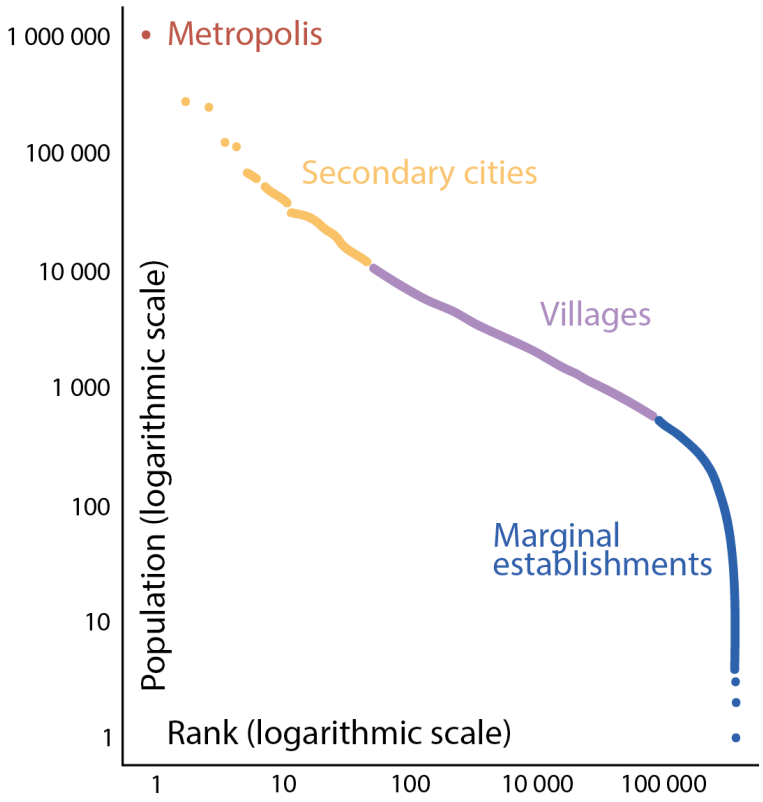


Figure 1. City scale.

Climate change further exacerbates an already precarious situation, with prolonged droughts and extreme rainfall not only disrupting water availability but also reducing the resilience of existing infrastructure[16]. In the face of these upheavals, a major shortcoming is the lack of long-term strategic planning. Fragmented financial management and an insufficiently structured regulatory framework hinder the implementation of sustainable, coherent solutions.

In this context, the rapid expansion of informal settlements, which are often ignored by development policies, is putting increasing pressure on failing water resources and sanitation systems[17]. These areas, which are on the margins of national priorities, demonstrate the inability of public policies to anticipate and regulate urbanization. Water networks are not evolving in line with housing and population growth; new network extensions and the installation of new infrastructure (e.g., standpipes) are very rare. Management is not optimized, and the service provided does not meet population expectations[14]. This geography of inadequate services demonstrates how these deficiencies contribute to social inequalities[18].

National water policies continue to favor large urban areas to the detriment of secondary cities, despite the latter's rapid growth. This imbalanced approach reveals a centralized and largely exclusive vision of territorial development. The coexistence of several management models without clear coordination between public, private, and community actors results in fragmented and ineffective governance[19]. User associations, which are intended to play a pivotal role in local management, frequently encounter significant operational challenges due to a lack of technical or financial support. Community participation, which is essential for sustainable governance, is marginalized in decision-making processes. This exclusion undermines local ownership of water issues and jeopardizes the sustainability of implemented solutions.

Despite the wealth of sources mobilized, the literature review has several limitations. Most available studies focus on large cities or rural areas, leaving secondary cities underrepresented. This lack of specific data prevents an in-depth understanding of the local dynamics of these intermediate territories. Theoretical and policy approaches are often too general and fail to consider the institutional, social, and spatial particularities of grey areas. Community water management systems, although widespread in Togo, have received little critical study. Their effectiveness, sustainability, and coordination with local authorities remain largely undocumented. Climate change impacts are considered at a macro level, with no localized analysis of vulnerabilities in secondary cities. Few studies examine citizen participation in water governance, despite its importance for legitimacy and sustainability. These limitations highlight the need for empirical research focused on secondary cities to inform policy decisions and fill current gaps.

In this context, the central question that arises is how water governance in Togo can be improved to meet the growing needs of the population while preserving ecosystem integrity and anticipating future challenges. To explore this, we examine the secondary towns of Kovié and Noèpé. Our analysis is structured around two themes: (1) the regulatory, institutional, and political framework for accessing drinking water, and (2) the practical challenges of managing water in secondary cities. This dual approach aims to provide a comprehensive overview of the obstacles and opportunities involved in strengthening water governance in Togo.

2. Materials and Methods

2.1. Presentation of the Study Area

Noèpé is a canton in the Avé 2 commune in southwestern Togo. It is located approximately 23 km from the capital, Lomé, and 27 km from Kévé, the capital of the Avé prefecture. It is situated at 6.259440° north and 1.035411° west. It is bordered to the north by the Badja canton, to the east by the Kovié canton, to the west by the Ghanaian border, and to the south by the Aképé canton (**Figure 2**). According to the 2022 General Population and Housing Census (RGPH-5), Noèpé's population was 9796 compared to 5700 in 2010. The area benefits from strategic accessibility thanks to National Road N°5, which facilitates economic and logistical exchanges. Noèpé is in Avé 2, one of Togo's 117 communes. It covers 248 km² and includes three cantons (Noèpé, Aképé, and Badja), with an estimated total population of 36,170. The area has a relatively stable tropical climate, which is favorable for agriculture and socio-economic life.

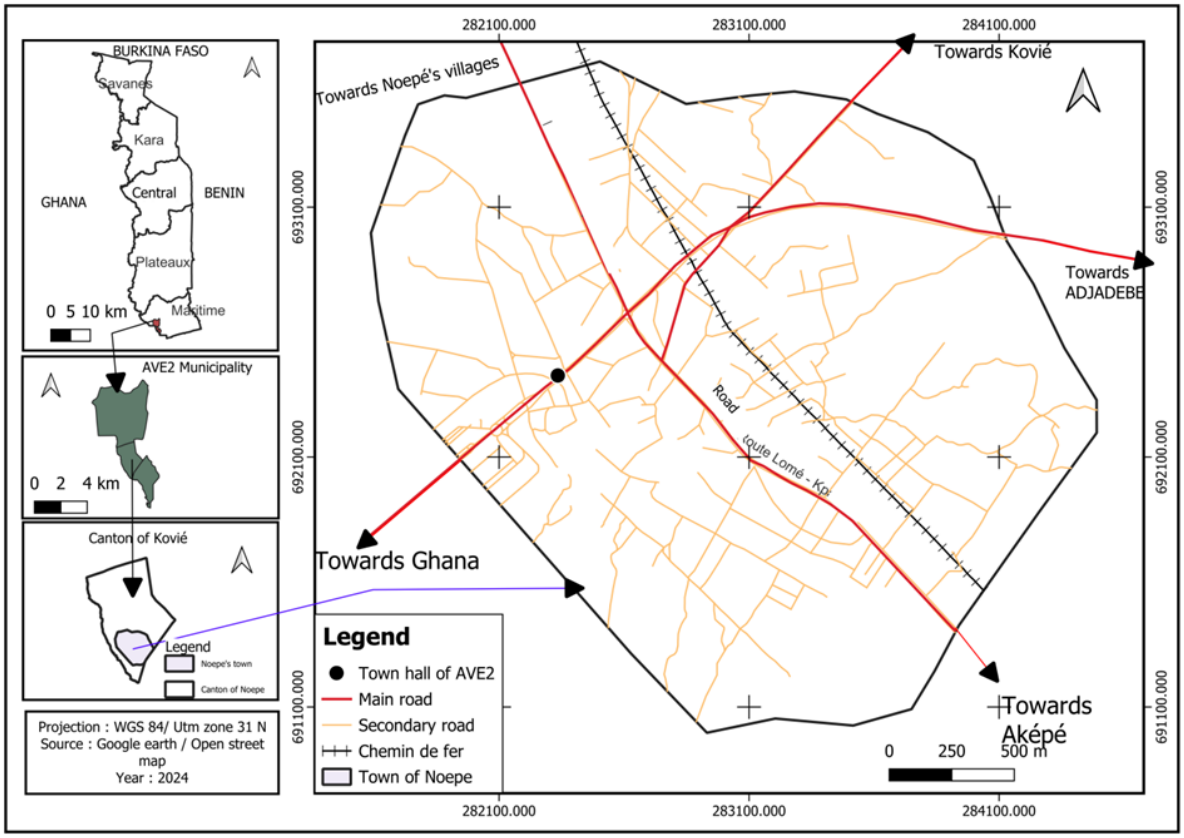


Figure 2. Location map of Noèpé.

Kovié, for its part, is in the Zio 2 commune, about 30 km northwest of Lomé and 25 km from Tsévié, the capital of the Zio prefecture. According to INSEED estimates, the canton's population was 20,834 in 2022, compared to 12,497 in 2010. It covers an area of 95.8 km². It comprises 23 villages, with Kovié-center as its administrative center. The canton borders Davié-Assomé to the east, Mission-Tové to the southeast, Noèpé and Aképé to the southwest, Badja to the northwest, Bolou to the north, and Wli to the northeast (**Figure 3**). Located in the oval zone of the Lake Togo basin, Kovié has gently rolling coastal plains crossed by the Zio River rice basin. The average altitude is approximately 40 meters, ranging from 20 to 100 meters. The tropical Guinean climate is characterized by two rainy seasons (March–July and September–November) and two dry seasons (December–February and August–mid-September), although these regimes are becoming increasingly disrupted by climate change. The average annual rainfall is estimated at 1015 mm, with temperatures oscillating around 26.6 °C, peaking at 28.4 °C in March and falling to 24.6 °C in August. The diverse vegetation combines gallery forests alongside the river with remnants of primary forests, alluvial meadows, and sacred forests, as well as areas of tree crops and orchards, constituting a high-value ecosystem.

2.2. Methodology

- **Approach**

  This study employed a qualitative methodological framework combining documentary analysis and semi-structured field surveys. The literature review drew on strategic and political documents, ministerial reports, academic publications, field studies, and theses related to water governance in sub-Saharan Africa. These sources enabled a detailed mapping of institutional and regulatory frameworks, with particular attention to the Togolese context and the dynamics of the drinking water sub-sector (AEP) within decentralization and community-based management models. Quantitative data from WHO, UNICEF, the World Bank, and UN-Water databases were used to complement the analysis.

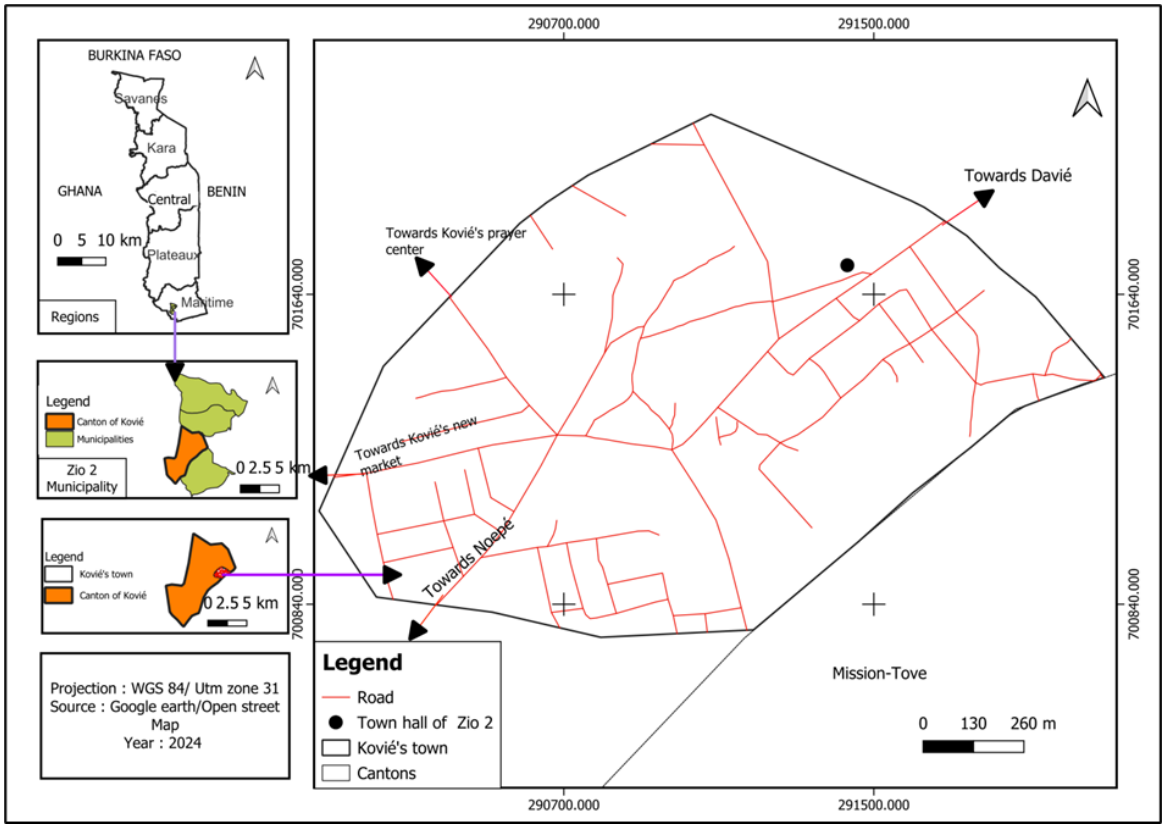


Figure 3. Kovie location map.

- **Data Collection**

Primary data were collected through semi-structured interviews and focus groups. Institutional interviews targeted senior officials and technicians from key agencies: the Ministry of Water and Sanitation (MEA), the Ministry of Territorial Administration, Decentralization and Customary Chieftaincy (MATDCC), the Electricity Sector Regulatory Authority (ARSE), and the Urban Water and Sanitation Heritage Company (SP-EAU). Focus groups were conducted with local actors including traditional and religious authorities, AUSEPA members, village and neighborhood development committees (CVD/CDQ), and opinion leaders (**Table 1**). Interviews were guided by a thematic protocol covering four areas: (i) perceptions of water-related issues, (ii) stakeholder organization, (iii) evaluation of public policies, and (iv) identification of priority needs. Sessions took place in both formal (administrative offices) and informal (neighborhoods, cantons) settings between December 2022 and October 2024.

Table 1. Lists of participants in the semi-directive interviews.

Structures	Noepe	Kovie	Topics Covered
MEHV / MEA	5	5	Challenges related to the management of public water services in secondary cities Technical and administrative aspects of the delegation of the public drinking water service
ARSE	5	5	Workshop on DSP regulatory mechanisms; Discussion on the issue of water tariff regulation
SP-WATER	3	3	The state of water and sanitation management in urban areas by SP-EAU Management of drinking water and sanitation works
Mayor and deputy mayor, SG, town hall technicians	5	5	Presentation of the municipality (number of councilors, cantons, populations, municipal services); knowledge of water management; service and role of the town hall in the maintenance of water assets; possible solution for improving management (DSP)
Municipal councilors	9	9	Status of management of current drinking water works, sanitation problems, and the town hall's projections regarding water and sanitation

Table 1. *Cont.*

Structures	Noepe	Kovie	Topics Covered
AUSEPA	5	5	Composition of the committee, state of water and sanitation management under AUSEPA, achievements and challenges, water service
PADIE	5	5	Knowledge of its importance in project management, in supporting municipalities in the management of water services
CVD	30	40	Defense of the population's rights in matters of water and sanitation services. Emergencies and challenges in drinking water management and service
Local authorities	3	3	
Opinion leaders	4	4	
Population	35	32	Needs and challenges in drinking water management and service Access to public drinking water service

- **Sampling Strategy**

  A combined purposive and snowball sampling method was used to identify participants. Initial contacts were selected based on their active involvement in water governance and territorial representativeness. Recommendations from these respondents enabled the inclusion of hard-to-reach profiles such as canton chiefs, water point managers, and committee members. Selection criteria included: (i) level of involvement in water management, (ii) technical or political experience, and (iii) geographical scope of action.

- **Data Analysis**

  All interviews were recorded with consent, transcribed, and analyzed using a thematic coding approach. Triangulation was applied across documentary sources, institutional discourse, and field data. Analytical criteria included: recurrence of issues, consistency across governance levels, gaps between policy and practice, and interaction dynamics among public, private, and community actors. Participation in workshops – such as the international seminar on drinking water management in small towns (Lomé, March 2021) – provided additional comparative insights and helped validate findings.

  This combination of data collection methods promoted the triangulation of information by crossing various sources and perspectives, thereby ensuring the reliability and validity of the results [20]. This increased the rigor and objectivity of the research, ensuring that the conclusions drawn were based on consistent and diverse data. According to Patton (2002) [21], this approach enriches understanding of the studied phenomenon by integrating multiple points of view, thereby strengthening the study's credibility.

3. Results

3.1. Institutional System Ill-Suited to New Urban Realities

The legal and regulatory framework for water service governance in Togo comprises a set of laws, decrees, orders, and regulations that govern the management and operation of water resources, as well as the distribution of drinking water. The framework's objectives are to enhance governance in the water sector, ensure more transparent and sustainable management of water resources, and improve access to drinking water and sanitation for the population.

The Water Code, established by Law No. 2010-004 on 14 June 2010, sets out the fundamental principles of water resource management in Togo. However, its implementation is challenging due to a lack of financial and technical resources, particularly in semi-urban and rural areas. Law No. 2010-006 of 18 June 2010 relating to the organization of drinking water and sanitation services allows for both centralized and decentralized management. However, implementation is fraught with significant challenges, particularly regarding coordination between national authorities, local communities, and private operators. This makes it difficult to ensure fair and efficient distribution of services and responsibilities.

Law No. 2011-024, passed on 4 July 2011 and amending Article 16 of Law No. 2010-006, passed on 18 June 2010, assigns responsibility for regulating the drinking water and collective sanitation subsector to the Electricity Sector Regulatory Authority (ARSE). This expansion of the Authority's jurisdiction beyond the electricity sector is a significant change. This change strengthens the regulatory and supervisory role in the drinking water sector. However, the ARSE's ability to fulfil its functions depends on its limited human and

financial resources, and it may encounter practical difficulties in supervising the entire sector. Togo has also introduced a system of concession and leasing contracts intended to improve service efficiency; however, these can also result in profit-driven management, which could compromise the quality of public services.

Decrees and orders complement this framework by setting water drinkability standards and regulating the delegation of management to local authorities. However, these decrees face similar limitations, such as implementation difficulties, particularly in rural areas, and a lack of local resources to effectively manage services. The SP-EAU, established under Decree No. 2011-130/PR on 3 August 2011, is responsible for promoting access to drinking water. However, its effectiveness is hindered by the absence of rigorous control mechanisms, which exposes the management of public funds to the risk of misuse.

Decree No. 2012-258/PR of 17 October 2012 sets out national standards and methods for monitoring the drinkability of water intended for human consumption. However, the authorities' limited capacity to ensure effective monitoring and enforce these standards across the entire territory is hampered, particularly due to the high level of informality that characterizes the water sub-sector in urban and semi-urban areas through the installation of domestic boreholes that do not comply with water drinkability standards.

Decree No. 2015-0017, which sets out the terms for delegating authority for public drinking water and collective sanitation services to local authorities, constitutes a step forward in favor of decentralization and local empowerment. It paves the way for better accessibility and local management of water services. However, the effective implementation of this delegation is limited by the financial, human, and technical resource constraints of community stakeholders and is even dependent on the future establishment of local authorities. This compromises the efficiency and sustainability of managing these services.

Finally, several decrees play a key role in water regulation in Togo. These include Decree No. 005/MEF/MCIDP-PCL/MEERHV of 9 August 2019, which sets water sales tariffs in Togo; Decree No. 018/14/MER of 18 July 2014, which relates to the procedures for declaring and registering hydraulic structures subject to the declaration regime; and Decree No. 019/14/MER of 18 July 2014, which sets the procedures for controlling and monitoring the quality of groundwater and surface water. These texts are essential for regulating prices, ensuring the traceability of hydraulic structures, and guaranteeing that water complies with health standards. They are necessary to regulate pricing practices and guarantee the protection of public health. However, their effectiveness depends on regular updates to maintain a fair balance between price accessibility for populations and the economic viability of infrastructure. Despite this regulatory framework, effective price control remains a major challenge, particularly due to weak monitoring mechanisms and a lack of transparency in certain areas.

Following decentralization reforms, Togo adopted a legal framework governing local water and sanitation governance. Law No. 2007-011 of 13 March 2007, as amended by the 2019 Decentralization and Local Freedoms Law, enshrines full communalization of the territory and grants local authorities' jurisdiction over water and sanitation. This was reinforced by Decree No. 2024-030 bis/PR, which specifies how the shared powers between the State and municipalities in these sectors are exercised. The decree clarifies the distribution of roles, specifies coordination mechanisms, and establishes governance between the different institutional levels.

Furthermore, Law No. 2021-034 of 13 December 2021 relating to public–private partnership (PPP) contracts encourages private sector involvement and paves the way for new forms of public water service management. At the same time, Order No. 0225/MATDDDT/SG of 1 June 2023 institutionalizes citizen participation by creating and regulating the operation of the Citizens' Office in municipalities.

Specific texts, such as the inter-ministerial decree CC EHHA and the DSP Zio 2 and Ave 2 decrees, govern the delegated management of public water services in certain municipalities at the local level. Together, these texts establish a more structured governance framework, although their implementation is still hindered by limited institutional capacity and ineffective coordination.

In summary, water sector governance in Togo is based on a relatively structured legislative and regulatory framework comprising the aforementioned reference texts. However, the effectiveness of this system is hampered by several major challenges, namely weak institutional and financial capacities, insufficient coordination, limited community par-

ticipation, ineffective regulation and control, economic viability challenges, and governance and transparency risks.

3.2. Analysis of the Political Framework of the Water Sector in Togo

The institutional and political framework for the supply of drinking water in Togo is based on a number of reference documents, including the National Water and Sanitation Policy (PNEA, 2020–2030), the National Action Plan for the Water and Sanitation Sector (PANSEA, 2021–2025), and the National Policy for the Supply of Drinking Water and Sanitation in Rural and Semi-Urban Areas (PNAEPA, 2006–2021). The PNEA provides an integrated approach to water resource management, drinking water supply, and sanitation. It is structured around four pillars: preserving resources, improving access to drinking water, improving access to sanitation services, and strengthening governance.

The PANSEA, aligned with the government's 2020–2025 roadmaps, aims to significantly improve access to drinking water, with differentiated targets depending on the geographical area. Since 2006, the PNAEPA has introduced principles of decentralized management, professionalization of services, and user payment for water, but its implementation is limited by a lack of effective decentralization and formalized contractual mechanisms. Despite these advances, the sustainability of services is hampered by several shortcomings: unclear institutional responsibilities; an absence of a coherent operational strategy; and a mismatch between formulated policies and the capacities of local actors, particularly local authorities and user associations. While Togo has a relatively rich strategic framework, its implementation is hindered by unresolved structural and institutional issues.

3.3. Networked Contractual Governance, between Technical Centralization and Operational Fragmentation

The institutional framework for water sector governance in Togo is based on cooperation between several entities (see **Table 2**), including the state; the Water and Sanitation Production Company (SP-EAU); the Togolese Water Company (TdE); the Associations of Users of Drinking Water and Sanitation Services (AUSEPA); and the Water Committees. Each entity has well-defined roles and responsibilities to ensure the population receives a quality service.

The state represented by the ministries responsible for water and finance — particularly the Ministry of Water — plays a central role as the contracting and strategic authority. It is responsible for developing national and sectoral water policies, implementing legislative and regulatory texts, and defining pricing policies. The Directorate of Drinking Water Supply (DAEP) is the technical body responsible for implementing these policies. Other directorates within the Ministry of Water also contribute to sector governance, including the Planning Directorate, the Project Management Directorate, and the Water Resources Directorate, through their specific functions in planning, project execution, and integrated water resource management.

Several other sectoral ministries also participate in the governance sector. For example, the Ministry of Health and Social Action is responsible for the sanitary control of drinking water. The Ministry of Mines and Energy, via ARSE, is responsible for the economic and social regulation of the water sector. The Ministry of Territorial Administration, Decentralization and Customary Chieftaincy (MATDCC) also plays a strategic role in implementing decentralization. According to Law No. 2007-011 on local freedoms, municipalities are now responsible for managing and maintaining drinking water systems. This potentially positions the MATDCC as a key player in coordinating the sector at a local level. However, the effectiveness of this decentralization is limited, which restricts the local impact of the reforms. This institutional framework highlights a desire for technical centralization of skills, although interdepartmental coordination remains a challenge for the integrated, effective governance of the water sector. Additionally, the state provides SP-EAU with financial support to mobilize the necessary resources for the sector, ensuring good governance and guaranteeing the sector's financial balance. This regulatory role is essential to ensure the consistency and sustainability of services. As a public company and concessionaire, SP-EAU is responsible for the technical aspects of the sector. It conducts studies and master plans, plans infrastructure expansion and rehabilitation work, and plays a major role in seeking financing for these projects in collaboration with the state. SP-EAU is also responsible for monitoring public drinking water and sanitation services. The concession contract between the State and SP-EAU defines the terms of this collaboration, ensuring shared governance in order to achieve national water sector objectives.

Table 2. The main departments responsible for the drinking water supply at the Ministry of Water are.

Direction	Responsibility
Water Supply Directorate Drinking water (DAEP)	■ Development of the Ministry's drinking water policy for the three environments: rural, semi-urban, and urban ■ Assistance to populations in the creation and management of water points and hydraulic structures ■ Improvement of the legislative and regulatory framework for drinking water supply systems and structures, as well as their management methods ■ Ensure the coherence of policies and strategies for the harmonious development of regions, the protection of users and nature in terms of drinking water supply
Planning Department	■ Update of monitoring data for the different sectors of the ministry ■ Design and coordination of policy development, strategies ■ Preparation of the sectoral action plan in collaboration with central and regional directorates, to carry out sectoral development plans
Project Management Department	■ Preparation of tender documents, based on the feasibility study or detailed preliminary projects submitted by operational departments, in conjunction with the procurement committee ■ Centralization of project management, delegation of contracts, and business markets ■ Monitoring of execution in relation to users and various stakeholders
Directorate of Water Resources	■ Development and implementation of the national water policy ■ Preparation of guidelines for water management regulations ■ Monitoring the implementation of water resources management projects ■ Inventory of hydrometric networks ■ Inventory of water potential and correlation with the drinking water needs of rural, urban, and semi-urban populations

However, in the absence of full decentralization, the provision of drinking water services in rural and semi-urban areas is primarily overseen by the Regional Directorates of Water and Sanitation (DREA), which are decentralized bodies of the Ministry of Agriculture, Livestock and Hydraulics (MAEH), as well as by SP-EAU. Although the five DREA play a cross-cutting role in planning, monitoring, and supporting service providers, their powers are theoretically limited to rural areas with fewer than 1,500 inhabitants, due to the extension of the SP-EAU concession area to semi-urban areas.

Nevertheless, due to the limited progress of SP-EAU reforms, which focus primarily on urban areas, the DREA continues to play a central role in semi-urban areas. Nevertheless, the human and logistical resources at their disposal are insufficient to effectively fulfil all their duties. Their staff comprises technicians with heterogeneous profiles, such as FORMENT agents, sociologists, pump mechanics, and administrative staff, but lacks specialized skills for the technical and financial monitoring of mini-drinking water supplies (mini-AEP). To compensate for this, the DREA uses external consultants to train AUSEPA, particularly for one-off projects. This institutional system therefore reveals two weaknesses: firstly, an unclear division of responsibilities between SP-EAU and DREA, and secondly, limited capacity to ensure the technical and financial sustainability of services, particularly in intermediate localities.

As the tenant operator, the TdE is responsible for the technical management of drinking water and sanitation services in the leased area. This involves operating, maintaining, and upkeeping water production and distribution infrastructure, as well as collective sanitation systems. The TdE also manages the commercial aspects of these services, including billing and collecting payments from users. The TdE also raises public awareness of the importance of using water sustainably, thereby contributing to the long-term management of this essential resource.

The relationships between these entities are governed by several contracts (**Figure 4**), including the transfer contract between the State and SP-EAU, and the leasing and performance contract between the State, SP-EAU, and the TdE. The transfer contract clarifies and establishes the terms for transferring management of public assets to a manager, such as SP-EAU. SP-EAU is then responsible for the maintenance, development, and operational management of these assets. The leasing contract specifies the operating terms of

water and sanitation services, while the performance contract defines shared goals and performance indicators for the three parties (the State, SP-EAU, and TdE). These contracts aim to ensure continuous service quality improvement, including access to drinking water for vulnerable populations, and improved sanitation infrastructure management.

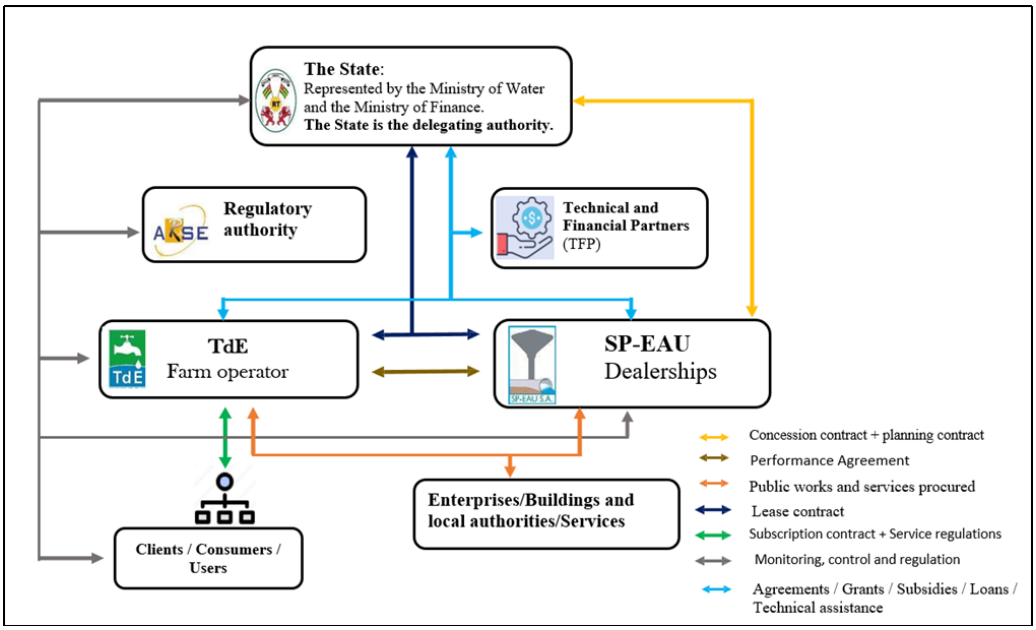


Figure 4. Institutional and contractual diagram of the actors in the water sub-sector in Togo.

The diagram illustrates a governance structure based on contractual delegation. In this structure, the State acts as the delegating authority through the Ministries of Water and Finance. This configuration is based on a series of contracts (e.g., concession, lease, performance, and subscription) that define the relationships between various stakeholders, including public authorities, technical operators, financial partners, local authorities, and users.

The state retains a strategic role in defining policies and regulating the sector. While this centralization ensures technical and financial consistency, it also slows down decision-making processes and limits adaptation to local realities, particularly in semi-urban and rural areas.

As the concessionaire, SP-EAU is responsible for planning, infrastructure expansion, and service monitoring. The TdE, as the tenant operator, is responsible for technical and commercial operations in the leased areas. While this creates a clear functional division, it also generates overlaps or grey areas in localities not covered by contracts, particularly where services are managed by community committees, such as in semi-urban areas.

The municipal authorities and users appear to be the ultimate beneficiaries of the system. They are bound by subscription contracts and are subject to service regulations. However, they remain passive participants in the scheme, raising questions about citizen participation and local ownership of water-related issues. Integrating the Citizen's Office could strengthen this dimension, but it is not yet fully operational.

Technical and financial partners provide essential support in terms of funding and technical assistance. Their involvement in the scheme highlights the sector's dependence on external aid, which could jeopardize the sustainability of projects unless accountability and monitoring mechanisms are strengthened.

This figure reveals a networked governance model based on complex contractual relationships, which can be effective with proper coordination. The main challenges identified are clarifying the responsibilities of the SP-EAU, TdE, local authorities, and local committees, strengthening the capacity of local authorities to manage delegated services, ensuring transparency in financial flows and regulatory mechanisms, and involving users in governance beyond their status as customers. To achieve more inclusive and sustainable governance, the role of local authorities and citizens in service planning and monitoring should be expanded, while

the technical and financial capacities of operators should be strengthened.

3.4. Local Authorities in the Management of Drinking Water

As part of the decentralization process in Togo, municipalities play a central role in the planning, implementation, and monitoring of drinking water supply services, according to Decree No. 2024-030 bis/PR. In accordance with current legislation, they manage local projects and are responsible for developing and implementing municipal plans for water mobilization, treatment, and distribution. In this capacity, they ensure the construction, management, and maintenance of infrastructure such as standpipes, boreholes, wells, and water supply networks through their technical services.

They also play a part in the integrated management of water resources, actively participating in the protection of underground and surface water resources, as well as wetlands and local fisheries. Furthermore, municipalities may establish local water management bodies responsible for constructing and monitoring installations or bodies of water under their authority with technical support from the state.

Finally, municipalities must monitor the compliance of supply facilities and carry out basic water quality monitoring, particularly regarding key parameters such as residual chlorine and fecal contamination indicators. This will help to ensure that the services provided to the population are safe for health.

3.5. Community Actors and Private Sector Participation

In semi-urban areas of Togo, water supply facility management primarily relies on AUSEPA. Despite the 2006 National Water Policy guidelines advocating a separation of the roles of manager and project owner, AUSEPA offices continue to assume both roles concurrently. Composed of five members from beneficiary communities (president, secretary, treasurer, maintenance manager, and cleanliness manager), these community structures receive technical and administrative management training and are required to open a bank account to manage revenue contributions. In practice, the vast majority of existing mini-AEPs are directly operated by these associations, often in the absence of formal delegation to a professional operator. This community management method shows significant limitations in terms of efficiency, sustainability, and transparency, particularly in technical and financial areas.

As for private sector participation, it remains very marginal, essentially limited to the construction of infrastructure, such as boreholes and hydraulic installations, and one-off technical services contracted by AUSEPA. The only attempt at formal delegation of management to a private operator, through a lease contract in the Afghan locality, failed due to the farmer's weak economic performance and the absence of a solid contractual framework. This unsuccessful experience is often cited as proof of the current limitations of private sector involvement in the semi-urban sub-sector. Thus, although community management is anchored in practice, it raises significant challenges in terms of professionalization, the sustainability of services, and regulation in the absence of a real framework for contractualization and supervision.

3.6. Financing the Semi-Urban Environment

3.6.1. Investment Planning

Investment planning in semi-urban water subsectors is essentially reactive and project-dependent. It is driven by the agendas of technical and financial partners (TFP), rather than by a coherent national strategy. Without a structured sectoral approach, investments are initiated on a case-by-case basis without formal coordination with overall public policy or prioritization of national needs.

Although the DAEP and the Directorate of Delegated Project Management have been mobilized to seek support from the DREA, the process is hindered by the lack of a permanent multi-sectoral consultation mechanism. The 2011 National Action Plan for Water and Sanitation (PANSEA), which involved planning the construction of 4,650 water points and 600 mini-AEPs to achieve the Millennium Development Goals [22], demonstrates the initial ambitions; however, consistent implementation has not followed.

In practice, the lack of inter-institutional coordination leads to redundancies and conflicts of use. NGOs and agricultural projects proceed with the installation or rehabilitation of structures, including in areas already covered by mini-AEPs, without consulting the relevant authorities. These practices

compromise the financial viability of existing infrastructure by introducing competing water points.

3.6.2. Sources of Financing

Financing for the sector relies mainly on external resources, which represented an average of 82% of investments made between 2009 and 2014 [23]. National resources (public transfers) only contributed marginally (18%), with historically low budgetary efforts of less than 0.6% of the national budget over the period, except in 2011 and 2012. In 2013, budget allocation for water and sanitation represented 0.55% of GDP.

The main donors are the West African Development Bank (BOAD), the Islamic Development Bank (IDB), the French Development Agency (AFD), the European Union (EU), the West African Economic and Monetary Union (WAEMU), and the Japan International Cooperation Agency (JICA). Numerous NGOs also make significant contributions, financing the construction of new structures and the rehabilitation of dilapidated infrastructure. Decentralized cooperation and NGOs also make a significant contribution, financing the construction of new structures and the rehabilitation of dilapidated infrastructure. Examples of this include French decentralized cooperation, particularly from water agencies such as SEDIF, AESN, and AELB, as well as local authorities and NGOs such as Experts Solidaires and SEVES. However, despite these efforts, only 26% of the new work planned in the PANSEA was completed between 2011 and 2013, highlighting the implementation framework's underperformance.

3.6.3. Pricing Policy and Financial Viability

Although the principle of paying for water is recognized in the 2006 national policy, no formal pricing framework has been established for rural and semi-urban areas. In urban areas, the Togolese Water Company (TdE) applies a progressive tariff ranging from 190 to 500 FCFA/m³, with an average tariff of around 350 FCFA/m³. Nevertheless, these tariffs are subject to political interference and do not cover operating costs [24].

Pricing practices in semi-urban areas are highly varied, ranging from free to high prices, which are sometimes higher than in urban areas (up to 1,000 FCFA/m³), particularly for certain standpipes. This lack of pricing alignment undermines the economic sustainability of community management systems and weakens users' payment culture. Additionally, this unequal pricing disadvantages vulnerable households, who end up paying disproportionately for a service that is sometimes of limited quality or continuity.

3.7. Diagnosis of the Monitoring Framework for Hydraulic Services in Togo

As part of an initiative to standardize the monitoring of water infrastructure, Togo has set up the PROGRES database, which is used to record hydraulic structures in rural and semi-urban areas. Powered by the five DREAs, the database primarily lists human-powered pumps (PMH) and mini-drinking water supply systems (mini-AEP). It provides basic information such as the structure's type and characteristics, ownership, management method, and whether a payment or contribution system exists. However, despite its national scope, PROGRES essentially focuses on PMH in rural and semi-urban areas and does not facilitate in-depth monitoring of mini-AEP or the operational management of standpipes.

Supported by PROGRES, the SOFIE system (Monitoring of Drilling Works and Water Indicators) is a complementary system for reporting breakdowns in real time, triggered from a SIM card reporting system. This mechanism automatically alerts local maintenance agents (FORMENT agents) and enables map-based tracking of technical malfunctions via a color-coded system. While SOFIE is effective at reporting breakdowns, it remains focused on the physical functionality of the structures without considering financial performance, quality of service, or local governance.

The system has several structural limitations. Firstly, there is currently no tool that allows for the systematic monitoring of the technical and financial management of water services. In the absence of directives from the DAEP, operators are not required to produce regular operating reports for the DREA. Secondly, data relating to the continuity, quality, or quantity of the service provided is neither collected nor analyzed for management purposes. Thus, despite the existence of databases and digital monitoring systems, the current monitoring framework is insufficient to ensure the sustainable provision of water services. The lack of an integrated assessment system for service levels and provider performance limits the potential for regulation, targeted improvement, and the allocation of institutional or financial

support.

3.8. Water Potential in Togo: Between Water Abundance and Operational Constraints

Togo has considerable water resources, which are divided between rainwater, surface water, and groundwater. The country receives an estimated 70 billion m³ of rainfall each year, with amounts varying between 1000 mm and 2000 mm depending on the region [25]. However, this resource is distributed unevenly both spatially and temporally. Much of the rainwater is used by vegetation or lost through evaporation, while some recharges aquifers or flows into rivers. Despite the significant quantity of rainwater, its exploitation is limited by these phenomena.

Togo's surface water resources mainly originate from three basins: Volta (Oti), Mono, and Lac-Togo (**Figure 5a**). These basins hold a total of approximately 10.5 billion m³ of water per year. However, the geographical distribution is uneven, with the Volta basin accounting for 60% of surface water resources, the Mono basin 34%, and the Lac-Togo basin a smaller proportion [25]. The main rivers, such as the Oti and the Mono, have had their flows partially regulated by dams, which facilitates management. However, these flows remain seasonal, and the regulation of certain rivers is still necessary.

Togo's groundwater aquifers consist mainly of basement formations (94% of the territory) and the coastal sedimentary basin (6%) (**Figure 5b**). Renewable groundwater resources are estimated at 9.32 billion m³ per year, the majority of which comes from basement aquifers [25]. Although the flow rates of these aquifers are relatively modest, their large storage capacity ensures a reliable long-term water supply.

These data show that Togo has significant water potential in the form of precipitation, surface water, and groundwater resources. However, this apparent availability is greatly affected by its uneven spatial and temporal distribution, as well as significant natural losses due to evaporation and vegetation cover intercepting rainfall. These factors significantly reduce the capacity to effectively mobilize rainwater, particularly in areas subject to high climate variability.

The partial regulation of watercourses through retention infrastructure helps to improve the management of surface resources. Nevertheless, the marked seasonality of flows poses a significant challenge to ensure a continuous domestic water supply, particularly in rural and peri-urban areas during the dry season.

Despite their generally modest flow rates, the aquifers offer significant storage capacity and long-term reliability, making them a favored source of drinking water in underserved areas. However, sustainable exploitation requires an in-depth understanding of recharge mechanisms and strict supervision of drilling practices, which are often informal and lack health and safety controls.

This situation reveals a structural paradox: while water resources are theoretically abundant, they are practically difficult to access and manage. Natural constraints (e.g., climate variability and water losses), technical constraints (e.g., insufficient infrastructure and limited regulation), and institutional constraints (e.g., fragmentation of responsibilities and weak local capacities) all hinder the optimal development of the country's water potential.

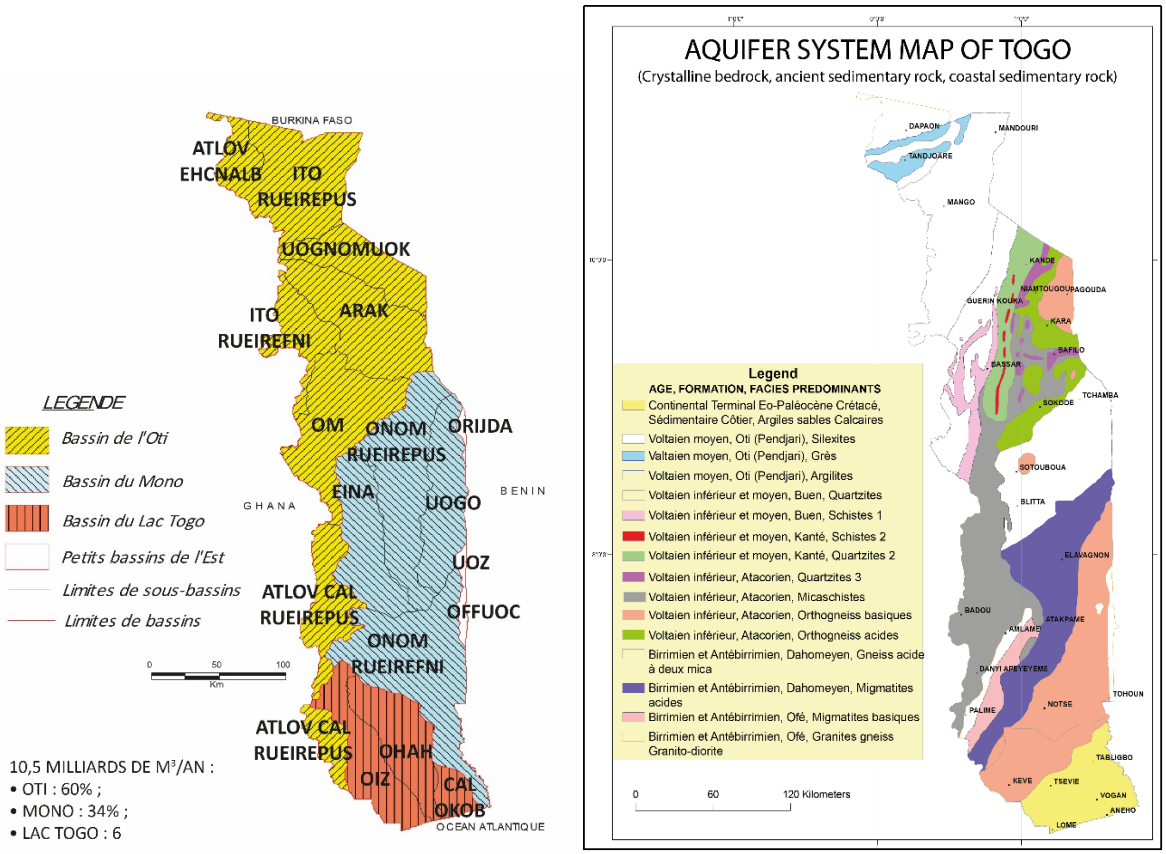
3.9. Governance of Water Services in Semi-Urban Areas in Togo

Togo's water resources face significant challenges. These are increasingly under threat from transboundary issues, climate change, water scarcity, desertification, pollution, and environmental degradation. These factors have exacerbated existing water management issues in Togo, particularly due to climate variability, low evaporation rates, and political challenges. As in other African countries, water availability and management in Togo are closely linked to geographical and socio-economic conditions, as well as to water governance policies.

Water governance refers to the set of structures, mechanisms, and decision-making processes that coordinate the activities of social groups, institutions, and other actors at various levels to address water-related issues and associated services in often fragmented and uncertain contexts.

In Togo, the water service aims to guarantee equitable, continuous, and universal access to drinking water for all. This is achieved through a network of infrastructure and commercial management processes that ensure a sustainable, high-quality supply. According to the management principles of the sector, the service encompasses all or part of the production process, including the capture or pumping of resources, their protection, treatment, transportation, storage,

and distribution to users. The proper functioning of this service is essential for preserving the health of the population, as well as for economic development and improving the quality of daily life.



(a) **(b)**

Figure 5. Water potential map of Togo: (**a**) surface water; (**b**) aquifer formation system.

Source: created by the authors using the MEHV base map [25].

3.10. Case Study: The Cities of Kovié and Noèpé

3.10.1. Emerging Urbanization and Pressure on Water Resources in Kovié and Noèpé

Kovié and Noèpé are medium-sized urban centers in the Zio and Avé prefectures, respectively, that are growing. They exhibit characteristics typical of small towns experiencing rapid growth due to population increase, and they face challenges in governing essential services such as water. Although they are not officially recognized as urban areas in the Togolese framework, they are experiencing sustained urbanization due to their strategic location on major roads, proximity to Greater Lomé, and emerging economic opportunities (e.g., land, agriculture, cross-border activities, and small businesses). Their proximity to Greater Lomé creates attractive growth centers, particularly for middle- and low-income households seeking affordable land. Kovié's population increased from 12,497 in 2010 to 20,834 in 2022, while Noèpé's population almost doubled from 5,700 to 9,769 over the same period [26,27]. This population growth is accompanied by progressive densification, with an estimated population density of between 146 and 225 inhabitants per km² in Kovié and between 114 and 145 inhabitants per km² in Noèpé. While this level of density remains moderate, it indicates increasingly concentrated occupation in central districts and along main roads. Without rigorous urban planning and appropriate local urban development, this urbanization results in the rapid expansion of residential districts without the necessary infrastructure, particularly for drinking water, which is being reinforced proportionally. Pressure on local water resources in these urban centers,

which are often limited to groundwater accessible through domestic boreholes, is intensifying, making water management more complex. The spontaneous development of new neighborhoods without basic infrastructure compromises the sustainable management of resources and equitable access to drinking water.

3.10.2. Limited and Unequal Access to Drinking Water in Noèpé and Kovié

Access to drinking water in Kovié and Noèpé remains largely informal. There is no structured water supply network yet. The population relies primarily on individual or community boreholes and traditional wells, which are often vulnerable to contamination. They also rely on water vendors, who supply certain neighborhoods during times of shortage, as well as on rainwater collected in poorly maintained cisterns. In both cities, the AUSEPA (Agricultural Water Supply and Distribution Agency) provides drinking water through mini-AEPs operating with public standpipes (BF) and private connections. However, the precarious economic situation of many families limits their ability to access these formal services regularly.

Consequently, a significant proportion of the population turns to alternative sources, such as wells, boreholes, the Zio River, and the facilities in the rice-growing area in Kovié. The sanitary quality of these resources is often uncertain and questionable. The use of these alternative sources increases particularly during the rainy season, when they are more easily accessible. This leads to a decrease in water consumption from mini-AEPs and an increase in waterborne diseases such as diarrhea and parasitic infections.

An analysis of documents from the PADIE and Experts Solidaires associations regarding water transport and storage practices reveals that these practices pose a threat to public health. Transporting water from boreholes (BFs) to homes, as well as poor storage at home, promotes contamination. In light of this, more sustainable solutions are being considered, albeit costly ones. “Drilling is an expensive solution, but sometimes it’s the only viable one in our area” (a shopkeeper in the Agome neighborhood of Noèpé). Even when access is assured, another challenge persists: that of quality. “It’s not just access that’s a problem for us, but the quality of the water too” (a welder in Apédokoè, Kovié). These words illustrate the daily difficulties experienced and the expectations of communities. They highlight the urgent need to strengthen water infrastructure, ensure water quality, and develop appropriate health education programs.

In this context, issues related to water quality and health awareness remain a concern. Many people are unaware of the risks involved: “We are not aware of waterborne diseases; only God can protect us” (a carpenter in the Kpodji neighborhood of Noèpé). In times of shortage, the consequences for daily hygiene are immediate. “Sometimes our children don’t shower when the tap runs dry for several days” (a hairdresser in the Wlintigome neighborhood of Noèpé). To cope, some families rely on water carriers. “Sometimes, it is the porters who help us with the water supply, using carts to carry cans” (a seamstress in the Séva neighborhood of Kovié).

Furthermore, access to drinking water remains problematic in the central neighborhoods served by small distribution centers, and managing this resource is complex. Despite the proximity of distribution points, the infrastructure is often inadequate or poorly maintained, resulting in frequent supply interruptions. This creates disparities in access, with some households benefiting from a regular supply while others face recurring shortages. Some households, particularly those in unserved neighborhoods, have to walk several kilometers to find water or pay high prices for it. Access to drinking water remains a daily ordeal for many families. As one resident testified: “Every morning, I get up at 4 a.m. to fetch water” (a farmer in the Apedokoè neighborhood in Kovié). For some, this task involves walking several kilometers. “Every morning, I have to walk two kilometers to reach the Zego River. The water isn’t always clean, but it’s the only source we have, and it didn’t kill our grandparents. It’s also from this same source that the herds of cattle migrating through the area come to drink” (a trader in the Seva neighborhood of Kovié). This resignation reflects an adaptation to the lack of an improved water source. Women and children suffer the heaviest consequences of this situation. They are often forced to spend long days collecting water, which is often undrinkable. This hurts their income-generating activities and education, thus reinforcing the cycle of poverty. Women are most often responsible for the expenses related to purchasing water from standpipes, which represents a significant financial burden.

The town of Noèpé’s drinking water supply network consists of around 12 kilometers of distribution pipes (**Figure 6**), serving 29 standpipes. Three of these standpipes are tem-

porarily out of service due to extension work on National Road No. 2 (Lomé–Kpalimé), and four others are currently closed due to low usage. The network also includes 238 private connections, 88 of which are inactive, primarily due to unpaid bills, which highlights the ongoing issue of tariff management and collection.

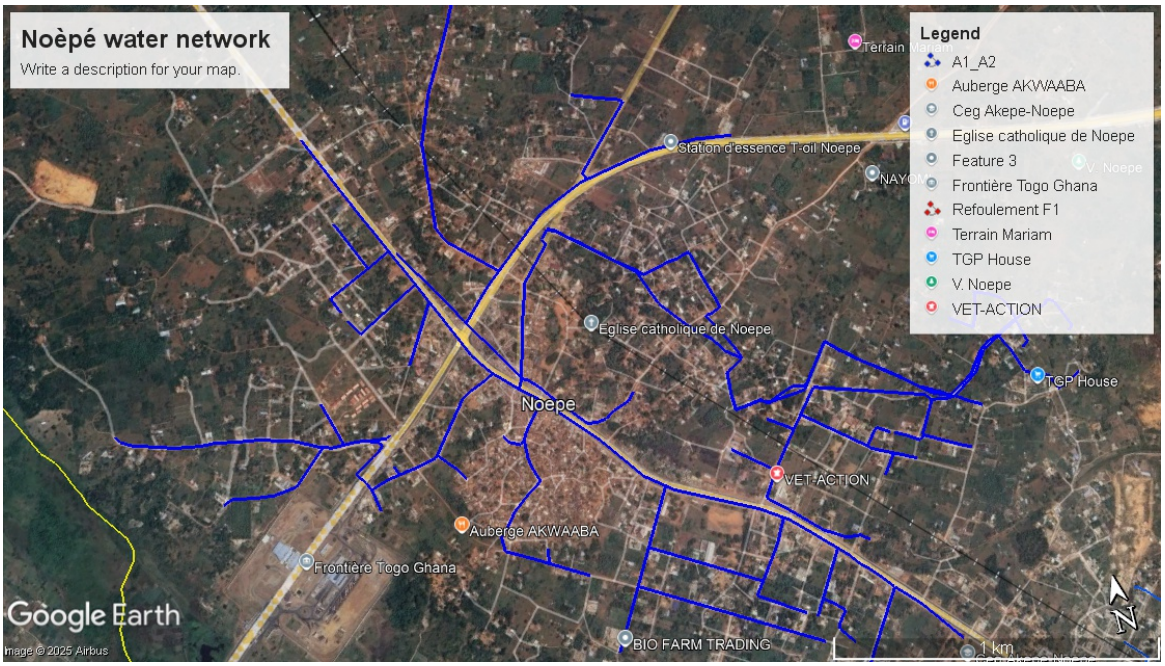


Figure 6. Noèpé water network, September 2020.

Water is supplied by a 50 m³ water tower, commissioned in 2008, as well as two productive boreholes. The first borehole, which was also drilled in 2008 at the initiative of a local stakeholder, is the main source of supply; however, its capacity has decreased over time. To address this, a non-governmental organization commissioned a second borehole in 2019, strengthening the system's overall capacity. Additionally, the locality has two abandoned boreholes: one due to high salinity of the water making it unfit for consumption, and the other due to it drying up. This situation illustrates the network's structural vulnerabilities, at both the resource and distribution levels, and emphasizes the necessity of rigorous hydrogeological planning and adaptive management of existing infrastructure. It also highlights the need for the establishment of sustainable technical and financial governance mechanisms to ensure continuous, reliable, and secure access to drinking water.

Kovié's drinking water supply relies on a centralized infrastructure consisting of a 255 m³ water tower and two boreholes (**Figure 7**). The first borehole was commissioned in 2013 as part of the Agricultural Land Development and Rehabilitation Project (PARTAM) in the Mission Tove area, while the second was completed in 2019 thanks to the Emergency Community Development Program (PUDC). The entire network comprises approximately 37 kilometers of PVC pipes, providing service to 31 standpipes (BF), ten of which have low usage due to accessibility constraints, poor spatial distribution, or population usage preferences. The network also includes 74 private connections, some of which face maintenance or degradation issues that could lead to water losses or deterioration in water quality. The system extends 10 kilometers north to the town of Ziowounou and covers approximately 25 kilometers in the urban area. Despite its strategic importance for access to drinking water in the town, the network malfunctions frequently, particularly at certain distribution points and in the technical management of connections.

These challenges highlight the need for integrated management mechanisms, including equipment monitoring and targeted rehabilitation of service points, as well as a preventive maintenance strategy. This will guarantee the sustainable, equitable, and secure distribution of drinking water to all users.

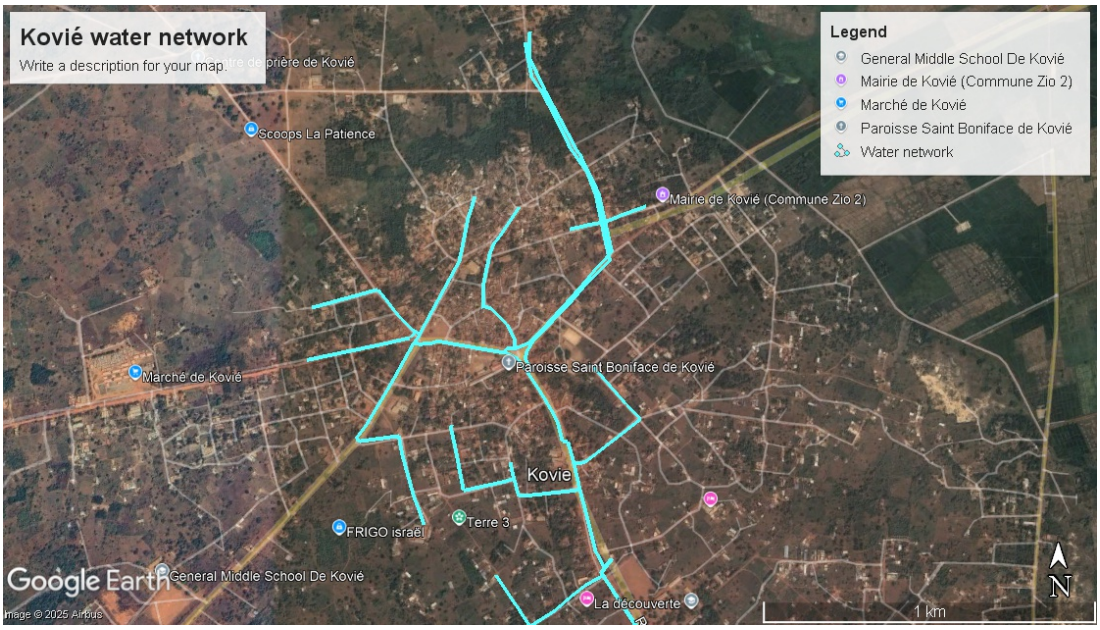


Figure 7. The current drinking water network in Kovié.

3.10.3. Institutional Weakness and Poorly Supervised Management

Water sector governance in the Kovié and Noèpé localities remains characterized by embryonic institutional structures and limited functional supervision. Municipalities and local authorities lack the technical, human, and financial resources necessary for the effective supervision of drinking water supply practices. Decentralized state services, such as the regional hydraulics directorate, intervene sporadically and without institutional coordination with municipalities. The absence of territorial planning documents, including urbanization plans and local water supply strategies, compromises the prospect of any sustainable, forward-looking management of the sector. Furthermore, mechanisms for monitoring water quality, evaluating performance, and ensuring accountability to users are virtually nonexistent. Added to this is deficient local infrastructure management, characterized by a lack of coordination, limited human resources, and almost no participatory governance.

These shortcomings result in ongoing issues with maintenance, pricing, and operational performance, which significantly impair the authorities' ability to meet the population's needs. Consequently, users, particularly the most vulnerable, tend to turn to uncontrolled water sources, thereby exposing communities to increased health risks. Furthermore, the absence of organized user groups at the local level means populations do not have a formal mechanism for representation with the operating authorities. Although theoretically mandated to defend the interests of users, in practice, the AUSEPAs play an operational role, generating a structural conflict of interest. This blurring of roles undermines the transparency and effectiveness of the management system, as the AUSEPAs act as both judge and party, and are therefore responsible for receiving complaints and correcting malfunctions of which they are themselves responsible.

3.10.4. Financing Capacity and Dependence on External Partners

In the Kovié and Noèpé localities, improving access to drinking water largely relies on external interventions, which are often initiated on an ad hoc basis by non-governmental organizations, local associations, or actors of international cooperation. These interventions have led to the construction of structures such as boreholes equipped with hand pumps or solar-powered devices. However, they are generally implemented outside of an integrated strategic framework at the municipal level. The absence of coordination mechanisms and alignment with local public policies results in a proliferation of initiatives that are less coherent and effective in the long term. Furthermore, these facilities face technical and institutional sustainability issues: without adequate management committee training, regular maintenance mechanisms, and structured community mobilization, many structures fall into disuse or are permanently abandoned. This deficit in

post-project governance is exacerbated by the absence of a local preventive maintenance policy and autonomous financing mechanisms, making the systems highly dependent on unpredictable external funding. This chronic dependence constitutes a major structural weakness that compromises the sustainability of achievements and the resilience of water services in these territories.

4. Discussion

4.1. Institutional Dimensions

Effective water governance is essential for achieving the Sustainable Development Goals, particularly SDG 6, which aims to ensure universal and equitable access to safe drinking water by 2030[3]. As Le Galès points out, governance refers to "the forms of coordination, steering and direction of sectors, groups and society, beyond the traditional organs of government"[28]. In sub-Saharan Africa, water governance remains constrained by institutional fragmentation and structural weaknesses, despite reforms driven by decentralization and participatory management policies over the past two decades. These reforms aimed to strengthen the accountability of local authorities and user communities, but results have been mixed, especially in peri-urban and semi-urban areas where operational and financial capacities remain limited[29].

In Togo, the water sector is governed by a complex institutional framework involving the Ministry of Water (MEHV), municipalities, the regulatory authority (ARSE), operators, and users. While this configuration should, in theory, promote responsive and decentralized governance, several obstacles hinder its effectiveness. Municipalities, although legally responsible for project management, often lack the technical and financial resources to fulfill their requirements. Coordination between stakeholders is weak, with fragmented relationships between MEHV, ARSE, and municipalities undermining the coherence of interventions. The ARSE, tasked with tariff regulation and mediation, is minimally involved in rural and semi-urban areas, where operators frequently operate without formal contracts or oversight.

Water governance in secondary African cities faces common structural challenges but also notable local differences. Similar shortcomings have been documented in other African urban centres, as highlighted in the study[30], which draws attention to weak institutional capacities and inadequate planning in small towns. In Noépé and Kovié (Togo), Ashaiman and Ho (Ghana), and Khayelitsha (South Africa), there is institutional fragmentation, poor coordination between stakeholders, and reliance on external funding[31]. The Togolese case, however, is distinguished by the strong sociocultural significance of water. Water is perceived as a sacred resource, influencing community perceptions of pricing and the legitimacy of modern systems.

While some South African cities are adopting hybrid approaches combining municipal governance and water justice, Togolese cities remain marked by a lack of strategic planning, accountability mechanisms, and recognition of local knowledge. This comparison highlights the need to adapt governance models to local realities, integrating institutional, technical, financial, and cultural dimensions to ensure equitable and sustainable access to water.

4.2. Financial and Strategic Planning Dimensions

Another major challenge is the increased dependence on external interventions, particularly those of NGOs and international donors. Much of the water infrastructure in Noépé and Kovié has been financed by short-term, one-off projects, often without robust skills transfer or maintenance planning. This situation compromises the sustainability of facilities. According to the Joint Monitoring Program[32], up to 30% of water sources in rural and semi-urban areas of West Africa become unusable within five years due to poor governance and maintenance systems[33].

Studies by the Water Partnership Program (2010)[34] reveal that water governance in semi-urban areas is affected by institutional fragmentation and systemic factors, including climate change, financing models, operation and maintenance (O&M) models, and socio-political dynamics. In Noépé and Kovié, for example, tariff disparities reflect unstable financing mechanisms and weak cost recovery capacity. The lack of preventive maintenance is due to inadequate O&M planning and insufficient technical capacity. Furthermore, the absence of strategic documents such as water supply master plans or local integrated water resource management plans means that future needs linked to population growth and the effects of climate change cannot be anticipated. This gap in territorial planning hinders the de-

velopment of an integrated vision for managing water services, as emphasized by OECD (2021)[2] and UN-Habitat (2024)[35], who advocate for improved coordination between local governance, urban planning, and environmental management.

4.3. Technical Dimensions

From a technical standpoint, water infrastructure in secondary cities is often poorly maintained and inadequately monitored. Municipalities struggle to supervise operators, monitor service performance, and ensure infrastructure quality. Community water management, as promoted by the AUSEPA model, also faces limitations. These associations combine technical and social mediation roles, creating structural conflicts of interest. Studies emphasize the risks of role confusion and asymmetric governance, with accountability mechanisms virtually absent[36,37].

Moreover, water quality control systems are lacking. The WHO recommends systematic implementation of water safety plans, even for small networks[38], but such practices remain rare in medium-sized Togolese cities. Drilling and installation are sometimes carried out without health checks or technical oversight, exposing populations to increased risks of microbiological or chemical contamination.

4.4. Social and Cultural Dimension

Water governance in Togo cannot be dissociated from its sociocultural context. In Noépé and Kovié, water is perceived as a sacred resource associated with deities, ancestors, and invisible natural forces. This dual physical and metaphysical status explains why certain rivers, springs, or ponds are considered sacred and protected through rituals. The abundance or scarcity of water is often interpreted as a sign of divine favor or displeasure, reinforcing the symbolic importance of the resource.

Community resistance to commodification, rooted in spiritual perceptions, illustrates how sociopolitical and cultural factors influence governance outcomes. Although women are the primary managers of domestic water and possess essential practical expertise, they are often excluded from decision-making bodies such as village committees or AUSEPAs. Access to water also gives rise to power relations and sometimes conflicts between communities or user groups. These conflicts are still mostly regulated by customary mechanisms or arbitration by traditional chiefs, who – along with local clergy – have historically played a role in resource management through local legislation rooted in beliefs and the socialization of aquatic spaces.

For contemporary management systems to be effective, they must be rooted in local sociocultural realities, recognizing the role of endogenous knowledge and customary authorities. Hybrid approaches that combine modern governance tools with traditional practices are essential for achieving community ownership, sustainability, and legitimacy in water policies.

5. Conclusions

The study of water governance in Togolese secondary cities, based on the cases of Noèpé and Kovié, highlights the complexity of issues relating to equitable and sustainable access to drinking water. Despite progress made at the national level, structural dysfunctions persist, including institutional fragmentation, centralized management, weak inter-stakeholder coordination, and insufficient local capacity. Combined with rapid urbanization, deteriorating infrastructure, and a lack of strategic planning, these factors accentuate disparities in access and the vulnerability of populations.

These findings highlight the urgent need to rethink water governance in secondary cities by adapting it to existing institutional and regulatory frameworks, while contextualizing it to the specific realities of each territory. It is therefore imperative to update the mapping of actors involved in shared water governance, accompanied by a dynamic and inclusive coordination mechanism, designed to promote better synergy between stakeholders. Furthermore, strengthening the institutional, organizational, and operational capacities of the various actors involved in the collaborative management of the water sector is essential to ensure effective and sustainable governance. In addition, developing local master plans for water management is a priority. To ensure consistency between territorial dynamics, infrastructure needs, and service provision planning, these plans must be aligned with existing urban planning documents. Finally, it is necessary to establish a shared water governance mechanism that is participatory, flexible, and adapted to local realities, as an

alternative model for ensuring sustainable access to drinking water in secondary cities.

This study makes a valuable contribution to the existing literature on water governance in Africa by highlighting the specific challenges faced by secondary cities, which are often overlooked in research that tends to focus on major urban centres or rural areas. By combining institutional analysis with sociocultural dimensions, such as the sacred perception of water, the study offers a novel perspective on the interaction between governance frameworks and local beliefs and practices. This dual approach reveals the limitations of one-size-fits-all governance models and highlights the need for hybrid, context-sensitive solutions. The findings from Noépé and Kovié thus enrich ongoing debates on decentralization, community participation, and the localisation of water policy in sub-Saharan Africa.

Bearing this in mind, the recommendations are fully aligned with the Sustainable Development Goals (SDGs), particularly SDG 6 (Ensure access to water and sanitation for all and manage water resources sustainably) and SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable). Inclusive, territorialized, and resilient water governance in secondary cities is essential not only for reducing inequalities in access but also for responding to the environmental, social, and urban challenges facing these territories. Strengthening local capacities and promoting cooperation between public, private, and community actors enables global objectives to be anchored in sustainable, locally adapted solutions.

Author Contributions

Conceptualization, A.K.A., K.K.A. and I.T.; methodology, A.K.A.; software, K.C.N. and K.M.E.; validation, A.K.A., K.K.A., I.T., T.S., K.C.N. and K.M.E.; formal analysis, T.S., K.C.N., K.M.E. and A.K.A.; investigation, K.C.N., K.M.E., K.T., J.P.M. and A.A.M.; resources, A.K.A.; data curation, A.K.A., K.K.A., I.T., T.S., K.C.N. and K.M.E.; writing—original draft preparation, A.K.A., T.S., K.C.N., J.P.M. and K.M.E.; writing—review and editing, A.K.A., T.S., K.C.N. and K.M.E.; visualization, A.K.A., T.S., K.C.N., K.M.E., K.T., J.P.M. and A.A.M.; supervision, A.K.A., K.K.A. and I.T.; project administration, A.K.A., K.K.A. and I.T.; funding acquisition, A.K.A. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Scientific Ethics Committee of CERViDA-DOUNEDON and the University of Lomé.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study. Written informed consent has been obtained from them to publish this paper.

Data Availability Statement

Data are provided upon request.

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Conflicts of Interest

The authors declare no conflict of interest.

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