

Policies for Sustainability of Water Services in Transitional Democracies

Joseph O. Obosi

Department of Political Science & Public Administration, University of Nairobi, Nairobi, Kenya

Email: jobosi@uonbi.ac.ke

How to cite this paper: Obosi, J. O. (2023). Policies for Sustainability of Water Services in Transitional Democracies. *Open Journal of Political Science*, 13, 438-452. <https://doi.org/10.4236/ojps.2023.134026>

Received: July 15, 2023

Accepted: October 23, 2023

Published: October 26, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

The paper has interrogated various policies that different countries have put in place to mitigate sustainable water services thereby ensuring the achievement of universal and equitable access to safe and affordable drinking water for all by 2030 in line with the United Nations' Sustainable Development Goal (SDG 6.1) targets. By using a comparative analysis of institutional arrangements under the theoretical framework of New Public Management, we assessed the main approaches that have directly or indirectly been implemented by government in transition democracies and the results realized. The paper has argued that the application of New Public Management approaches has been responsible for the dynamism witnessed in water service policies and the different results realized towards sustainable water supply to the deserving population in transition democracies.

Keywords

Sustainable Water Supply, Community Water Management, Public-Private Partnerships, Water Governance, Water Policy

1. Introduction

The United Nations' Sustainable Development Goal (SDG 6.1) targeted the achievement of universal and equitable access to safe and affordable drinking water for all by 2030 (World Health Organization/United Nations, 2017). Universal access implies that all households, schools, health facilities, workplaces and public spaces have potable water, while equitable access implies progressive reduction and elimination of inequalities between population subgroups (World Health Organization/United Nations, 2017). The universal access to clean and affordable water is still a challenge in transition democracies. Whereas, Sub-Saharan Africa is making the slowest relative and aggregate global progress with one in

three people (30%) without improved drinking water access (WHO/UNICEF, 2015), 75 percent of Latin Americans have access to safely managed drinking water services. Only 26.8% of the population has access to a basic minimum level of service in Ethiopia, while 64.2% have access in Kenya and 84.5% have access in South Africa (WSP, 2003). According to the National Panel Survey (NPS) 2020/2021 (NPS, 2023), Tanzania's access level to clean water still averages 61%. The sustainability concerns were addressed in the context of governance that would ensure affordable quality water in the right proportion in the desired time through participatory approaches. The need called for deliberate government efforts in terms of mobilization of requisite resources for the attainment of the goal.

The provision of water to deserving population has been a challenge globally. The poor communities in the transitional democracies are the most disadvantaged. Different states have championed the provision of water to their citizens. The state-driven approaches have generally been through public provision, public enterprises and commercialization in most developing countries. These have occurred alongside private enterprises in developed countries and their agencies in Sub-Saharan Africa and Latin America. Courtesy of the Multinational companies, the focus has been on the piped distribution of water pipelines in urban centres mainly to the formal settlements. The informal settlements in the urban areas together with the rural settlements have grossly been neglected in these arrangements yet the majority of the population lives there. In Latin America, the disadvantaged segments of the community get supply from leased regular water pipelines operated by richer businessmen on behalf of the government. Whereas in some countries in Africa, the supply has been a deliberate move by the government to distribute water to the disadvantaged through water communal points, like in Uganda, Ethiopia, Malawi and Tanzania (Bayliss, Tukai, & United Nations Development Programme, 2011), in others especially, Kenya, community water supply has been orchestrated through self-help initiatives by local communities with no direct involvement by the government. It is prevalent in both rural and urban sectors. Once established, the community water projects in Kenya, seek support from donors which may include the government and its agencies, nongovernmental organizations, churches and even individuals to help them increase water access, first to the members of the organization and secondly to customers. That brings into play public-private partnership in the supply of water services to the community. The puzzle continues when a government has facilitated a policy that bestows decision-making responsibility of water distribution to relevant levels of government. To that extent, community water has increasingly become an alternative means to sustainable water supply to increasingly larger and economically disadvantaged segments of the society. In Kenya, community water projects have been recognized as alternative Water Service Providers (WSPs) and are registered by Water Services Regulatory Board (WASREB, 2012). The challenge arising is whether the government should decentralize water supply, empower local population, and/or encourage public-private

participation in the distribution of water services. Attempts to address these critical concerns have seen different countries in transition democracies apply different strategies in various proportions with different results in water services delivery. Given that provision of water is a human right in the constitution of most governments, it calls for better governance of both the natural resources and the distribution of water, hence New Public Management approaches. The paper examines the viability of governments' "New Public Management" approaches towards the attainment of sustainable water supply to the deserving population by examining water policies in transition democracies with specific reference to: community water supply, public and private partnerships in water supply, and decentralized decision-making systems for water services.

2. Theoretical Framework

The paper is based on the theory of New Public Management in the delivery of public service as propagated by Hood (1995) and O'Flynn (2007). The assumption is that governments need to disaggregate public services to their most basic units and focus on their cost management. In doing so, the focus is shifted to privatization and customer focus in which case there is a deliberate effort to shift management of utilities from government control for enhanced efficiency measured through results as opposed to processes. In this context, governments in effort to enhance sustainable water supply, embrace the participation of different actors and stakeholders in the governance of both distribution of water services and the management of water resources. Most governments, therefore, resorted to directly or indirectly providing water services through any or a combination of the following approaches: recognizing and establishing community water organizations, privatization, embracing public-private partnerships and decentralization of the governance systems. The units responsible for the management of water services are then subjected to input-output control and evaluation upon performance management and audit. By inducing the New Public Management principles, more efficiency, public-private partnerships and innovation are realized resulting into reduced cost of water to the undeserving segment, currently unprioritized. This is informed by the argument that as currently constituted, community water management, for instance, has largely been ignored. They either operate informally and independently as in Kenya, under direct control under local governments like in South Africa, managed by public-private partnership as in Ghana or under loosely managed and unmonitored outfits in countries where the government had initiated the community water projects like in Ethiopia, Malawi, Uganda and Tanzania, hence gross underperformance. The paper argues that the level of acceptability of the new management approaches as government interventions determines the level of success in providing sustainable water services to the vulnerable population in transition democracies.

3. Methodology

The paper relied on secondary data resulting from desktop which focused on:

how formal and informal water markets operate; differences in distributive, procedural, and interactional water services and how cooperation among water vendors impedes or assists in achieving in sustainable water delivery. The secondary data was obtained from journals, books, and government publications with particular reference to sustainability of water service interventions in transition democracies. The data was then subjected to a comparative institutional analysis of water policies in transitional democracies in terms of sustainability in the context of affordability, access, quality and time taken. The objective of the review was to identify policy highlights that could enhance affordable and safe water to underserved communities by the government through participatory water governance and the interactions that have arisen between the government agencies and the vulnerable population.

4. Community Water Services

The existing literature indicates a history of community water management in transition democracies in general. It also shows that different countries have used community management differently for various reasons and in varying degree of success. In most instances, community water management has been used as an informal approach, especially where the mainstream approaches have not been able to access. However, from 1990s, the community water management gained more credence as a sustainable solution to water supply especially in the rural areas and informal settlement areas in the urban centres. By 2002, Community management of rural piped water supplies was already widely established in many countries and was already promising more sustainability for the future (Lane, 2002). In some countries, the community management is left at the hands of self-help initiatives, while in some it is a deliberate intervention by the government to offer water services to the vulnerable population. The sustainability of the community water supply relies not only in its ability to tap in resources from different actors but also in its flexibility in access, whether in rural areas or in urban centres. In Malawi and Ethiopia, the respective governments deliberately both singly and in support of International NGOs, established community public water standpipes to provide access to rural population to water (Lane, 2002). In Cochabamba, Bolivia, there was a combination of the government and community efforts in which the government acceded to the community's push to manage their water supply with the government's support after resisting privatization efforts. In Kenya, community management was even stronger and started through self-help initiatives and for members first. By 2015, community water supply contributed up to 60% of total water access in Kenya (Obosi, 2015). Equally, 40% of access in Dar es Salaam was courtesy of Community water supply chain (Kjellén, 2006).

Despite the evidence that the community water supply has contributed positively more than any other single approach to provision of water supply in Africa, it is still regarded as an informal approach. Even in countries like Ethiopia

and Malawi where the government established the community water supply, there was still little faith in its management (WSP, 2003). Other studies though appreciating the role of community water supply, established that the government's preferred choices in the management especially of maintenance is at times, at variance with that of the community, hence less gain (Hope, 2015a). In Malawi, the technical and financial performance under community management was weak and therefore, the community management worked more for the state and donors as a means of off loading public service delivery responsibility than it was for the community, hence could not deliver the desired results (Chowns, 2015a). Notwithstanding the good progress reported, most states in Africa still prefer other conventional approaches like Concession and Afterimage in Francophone Africa and Commercialization through Management contracts in Anglophone Africa at the expense of the community water management, its contributions, notwithstanding.

In Latin America, the disadvantaged segments of the community get supply from leased regular water pipelines operated by richer businessmen on behalf of the government. In Cochabamba-Bolivia, 74% of the poorest residents lack access to municipal water service and therefore rely on communities built commonly managed wells and water systems. In Sub-Saharan Africa, most clean water is delivered via community-managed water points, either hand pumps or piped gravity-fed systems (WHO/UNICEF, 2015). Of the eight million Kenyans who have access to improved water in rural areas, 30% are served by community-managed water supply schemes most of which were developed by self-help groups. These self-help schemes differ from those in Ethiopia or Malawi in two important aspects. First, they were designed to provide water mainly to the members of the self-help groups, not equitably to everybody living in the service areas. Secondly, they supply water mostly through household connections, not public tap stands (WSP, 2003).

Although community water supply has succeeded in promising sustainable water supply solutions in a number of countries, at best we can talk of mixed results since the approach has attracted both criticism and support in almost equal measure, in theory and in practice. In the area of providing and maintaining water services that local communities have a leading role, the community water supply support has found support in the following scholarly works including Hope (2015a), Obosi (2011, 2015, 2020) and McGranahan and Kjellén (2006) which in separate studies further support community management in community water supply. There are scholars who have little faith in service delivery under the community management mode. Whereas Hope (2015b) and Chowns (2015b) argued that community management is less impressive than theory suggests and has serious problems, they have regarded the concept of community management approach as "myth" in common pool resource management in Africa. The opponents of community management argue that the model is neither cost effective nor sustainable hence does not work well for communities due

to various reasons including: non functionality of many such water points which do not work by roughly one-third across the continent. In Tanzania, one-quarter of new water points become non-functional within 2 years of installation (Dakyaga et al., 2018). In most countries around the world, it has by and large failed to achieve the ultimate goal of reliable and sustainable water supply at scale (Adams et al., 2019). Indeed, sustaining safe and reliable water supplies through community water management has been problematic with as many as 30%, of systems not working at any one time due to the challenges with scalability (International Water and Sanitation Centre, 2009). For related reasons, Hope (2015a) argued that community management is the least preferred management option for water users. This is further lent credence by the fact that whether at central, regional or local, governments play dominant role in all-Africa infrastructure assessment except in water.

Based on various experiences from different countries, Kenya, Ethiopia, Malawi, Tanzania, South Africa, Bolivia and Colombia, we can conclude that community water management works better when the individual population are left to self-manage their initiatives like in Kenya since the government interventions are at times not in tandem with the preferred approaches or objectives of the local population, hence attracted either unmatched expectations as in Bolivia and Columbia, resistance or laxity like thus impacting negative on the sustainability of the project as was in Ethiopia , Tanzania and Malawi.

5. Public-Private Partnerships/Privatization Policies

Although the Public-Private Partnerships (PPPs) and privatization have more often than not been used interchangeably, they are not. In this paper, we shall use privatization as one of the forms Public-Private Partnerships (PPPs). There are ten types of PPP mainly used in water sectors. They range from Public Enterprises where the asset ownership, management, tariffs regulation are all under statutory control, followed by Public Limited Company (PLC), Service contract, Management contract, Affermage contract, Lease contract, Concession contract, Built-Operate-Transfer (BOT), Joint Venture, to Divestiture. PPP falls between public enterprises at one end of the continuum and divestiture at the very extreme end. It is divestiture, which for all practical purposes, involves privatization, which occurs with any introduction of private sector participation in the ownership and/or control of a water service institution (Obosi, 2021). The sustainability of water services concerns has dominated the reasons influencing the choices of different types of PPP by different countries. Privatization, taken as a political strategy that creates new rules and allocates rules among the state, the market, and civil society can appear in any of the following four types: ideological (less government), populist (more government), pragmatic (effective solutions), and commercial (more business). Therefore, PPPs, irrespective of the form adopted, usually imply some form of reduction of state/public involvement in the management, ownership, and provision of public utilities and services by

introducing privatization principles as discussed in the next section. Although different countries follow different public and private sector involvement modes in public utilities, a common trend was observed across the range of country contexts examined. There seems to be a consensus among policymakers and experts that the government should disengage from utility sectors like electricity and telecommunications but not water services. Water is seen as unavoidably social and evokes political emotions like no other issue (Prasad, 2006). Other governance affecting privatization of water services include the reasons why the water services has to be privatized; secondly, the identification of the service provider, and how the service provision is transferred from public to private providers; third, the impact of the water privatization on the poor; Fourth, the concern that the privatization of public utility service delivery tends to shift accountability of service providers to policy makers rather than the service users, particularly where privatization grants service monopoly to a private provider; and finally the concern for cost recovery for privatized public good services like water.

Different countries have used different methods to transfer service provision from public to private providers and registered different experiences. Nelspruit city, South Africa used open tendering method to identify a private company to manage water services on a concession basis for an initial period of 30 years. The Local Authority was to retain the role to regulate tariffs and set water and sanitation service quality standards according to the national government policy (Cardone & Fonseca, 2006). In Bolivia, the dissatisfaction of the community against privatization of water services caused serious riots that resulted into the cancellation of Multinational Water supply contract. In Mauritania, the government delegated Water Management in small towns to private providers called *Concessionaires* in 1993. Each *concessionaire* was expected to supply water to a community on a yearly basis for those with diesel powered systems and on a monthly basis for those with solar-powered systems under cost recovery principles where users pay for water consumed. In Zambia, it was observed that the World Bank sponsored management contract of water services in the copper belt mining towns of Zambia had to be reverted to public utility, Nkana Water Service Company because its performance through commercialization of water services was no better than those of public companies (Dagdeviren, 2008).

Privatization does not necessarily lead to positive impacts on the citizens. The results of the privatization across the globe have been varied. The World Development Report 2004 (World Bank, 2004) indicates that the poor people feel the greatest negative impact of inefficient water supply and sanitation services. Very few people are connected to a water network, and even those who are, share water points with many people. Ironically, the poor pay relatively higher prices than the more affluent households connected to the piped system. In extreme cases like the city of Lima, Peru, a poor family pays on average over 20 times what a middle class family pays, yet the poor family uses on average, one-sixth as

much water as the middle class family that has a network connection (Webb & Iskandarani, 2019).

In terms of impact of form of ownership on performance of Water companies, different observations have been raised. In a study from cost of production function, found that publicly owned water utilities in the United States had higher costs than their privately owned counterparts (Kumar, 2009). A study of the difference in efficiency of public and Private Water companies in Asia found that competition is more critical than matters of ownership (Estache & Rossi, 2002). In Thailand, there was improvement in access, water quality and service quality for affected households in general and urban poor in general irrespective of tenure status, or price (Zaki & Nurul Amin, 2009). The findings corroborated that of a study of Bogota's (Colombia) water company on ways to combine public management with commercial practice for the benefit of the poor (Wutich et al., 2016). Community-Public Partnerships (CPPs), established between a water utility and an elected group within a community, offer win-win arrangements that enable private operators, utilities and communities to derive benefits through mutual understanding, shared responsibilities, and exchange of knowledge and experiences (Adams et al., 2019). This provides an appreciation of the new role that arising out of the unique partnerships that recognizes the critical role provided by the community in supplying sustainable water.

From the foregoing literature, it is clear that regulatory mechanisms, whether through citizen participation or statutory, is crucial to the outcomes of privatization. It is widely recognized that regulation and regulatory governance are key elements of development-policy thinking in promoting pro-poor market-led development (Kirkpatrick et al., 2010). In fact, Zhang et al. (2016) demonstrate using panel data and econometric model that establishing a regulatory authority and introducing competition prior to privatization results in better performance of the operator as well as for the consumers. However, it is not lost that the developing countries often have established regulatory mechanisms on paper, but ineffective in reality (Kessides, 2004).

Privatization in Kenya began with a divestiture exercise that saw the government sell proportions of its shares in the public enterprises Privatization of the concerned enterprises were guided by a privatization policy that only involved the revision of statutes for the concerned sectors or corporations. The privatisation of water services in Kenya was ushered in by the sectoral reforms through Water Act 2002 (Government of Kenya, 2002) even before the Privatization Bill of 2004 was published (Obosi, 2018). The Government of Kenya established Seven Water Regulatory Boards in Kenya and embraced the commercialization of services principle. The local authorities in Kenya introduced commercialization as a strategy for ensuring sustainable and efficient delivery of water and sanitation services (World Bank, 1999). Towards this end, most local authorities have formed or are in the process of forming Public Limited Companies (PLCs) run on strict commercial lines under "agency contracts" from the parent local author-

ity (K'Akumu, 2007).

In the transition democracies, different PPP have been used with different results. We can conclude that it is neither form nor the nature that is paramount to the sustainability of water services but the manner in which each has been applied taking care of the needs of the local population. The local diversification has seen community management become another critical and perhaps a more successful approach in the delivery of sustainable water services in Kenya. The partnership should be propelled by local needs and not government championed top-down approach. The partnerships are facilitated by the nature of the governance systems allowed.

6. Decision-Making Levels of Governance

The decision-making levels were the other point where different countries applied different approaches towards the implementation of sustainable water policies. Whereas some countries set policies to facilitate the distribution of water services at the national levels, others did so at decentralized level. Although most governments opted for decentralized governance systems, what differed was the form of decentralization applied by each country. In Bolivia, Cochabamba's Departmental Health Service instituted a system of registration and equipment checks number of informal water vendors and water sources remain outside of this regulatory system under a deconcentrated form of decentralization (Wutich et al., 2016). In Malawi and Ethiopia, each government not only designed but also constructed water points before inviting communal involvement. Ghana formed National Community Water and Sanitation Programme (NCWSP) to facilitate the provision of basic water and sanitation services to communities through Community Ownership and Management (Nyarko et al., 2011). Decentralisation is envisaged to bring with it more appropriate choices on the level of technology employed, relative to management and local financing capacity to facilitate sustainability. Even though the government of Kenya has strengthened the legal basis and capacity of community-based service providers, the informal or small scale water service providers operate at the local level, under the supervision of large scale water service providers. Whereas in some countries, the supply has been a deliberate move by the government to distribute water to the disadvantaged through water communal points like in Uganda, Ethiopia and Malawi, in Kenya, community water supply has been orchestrated through self-help initiatives by local communities with no direct role by the government. It is prevalent in both rural and urban sectors (WSP, 2003). Whereas Central government is the highest water sector provider at 51%, followed by Local authorities at 27% and Non Governmental organization including CBOs and PSP at 21% in Kenya, in Ethiopia, the Private Sector Participation through CBOs is at 54% followed by local authorities at and no central government direct participation. Kenya has however implemented water supply policies under 3 different systems of governance. Until 2002, it was through direct management of the government through

Local Authorities and the Ministry of Water, followed by through Water Companies on behalf of Water Service Boards which also incorporated community water supply and private water suppliers as well as provided by the Water Act 2002 (Government of Kenya, 2002). The final phase was followed the enactment of Kenya 2010 (Government of Kenya, 2010) constitution when water service provision was transferred to the devolved county governments as guided by the Water Act 2016 (Government of Kenya, 2016; Obosi, 2017). In South Africa, 89% of water service is provided by the local Authorities and 4% by the community (WSP, 2003). This has led government to decentralise funding programmes in order to ensure that communities are willing and able to pay for services. Municipal restructuring in South Africa has removed the formal distinction between urban and rural areas.

As part of the government's decentralization process of rural water supply in Ghana, the rural and small town's water supply was decentralized to the Municipal/District Assemblies (Nyarko et al., 2011). Under the Community Ownership Management approach, small-town water services started in 1998 with over 100 systems from Ghana Water Company Limited (GWCL) to the Municipal and District Assemblies (DAs) and the construction of new systems by the DAs (Nyarko et al., 2011). Under the Community Ownership and Management approach, communities select their representatives from water and sanitation committees representing electoral areas in the communities to form the Water and Sanitation Development Boards (WSDBs) responsible for managing the water systems (Obosi, 2011). The decentralization of the governance water systems in Ghana, therefore, facilitated the participation of various actors including the government through the WSDBs, the private and the community in water supply for the small towns in Ghana. The water supply in large towns was facilitated through the Commercialization of Water Utilities and managed through the Municipal Authorities on behalf of the Government. Ghana has further institutionalized Public-Private Partnership in which involving contracted Private Operators and Public Operators under Community Ownership and Management approach under the supervision of local authorities through District Assemblies. In Latin America and the Caribbean, rural drinking water and sanitation services are generally led by community organizations, such as administrative boards or water vigilance committees (UNESCO, 2023). Most of these organizations are responsible for the operation and maintenance of services, which depend on the collection of fees. However, these associations tend to have weak management capacities, mainly due to the lack of funding, insufficiently trained technicians, poor or insufficient infrastructure, and/or the difficulty of agreeing on rates or fees with the local population. Faced with these issues, the promotion of new management models based on efficiency, enhanced technical assistance and appropriate subsidies are generally required to improve and expand overall service for rural and peri-urban population (Pena, 2015).

In Congo Brazzaville, failure by the central government to deliver the services

through its centralized agency, the Societe Nationale de Distribution d'Eau (SNDE) (National Company for Water Distribution), paved the way for the liberalization of public services under the Structural Adjustment Programmes (SAPs) by allowing private sector participation in the delivery of public services. With connections being sublet to a general construction company, La Ge'neral des Travaux de Baitiments (GETRAB), the number of connections rose to 11 per day compared to 1 under SNDE, thus resulting in over 3400 connections to established networks in Pointe Noire and 2000 in Brazzaville after two years (Tati, 2005). The success was attributed to reduced bureaucracy whereby the duration between application and connection time was reduced to 48 hours from between six months and two years when under SNDE (Obosi, 2015).

The national governments of Ethiopia and Malawi worked in partnership with the communities and, the former providing technical standards and supervision at the local levels. The governments took the lead in implementing projects, and then in the 1990s Water Aid, the international NGO, began giving financial and professional help to the government schemes. The government engineers designed the schemes in accordance with technical standards and the wishes of the communities served. However, in Ethiopia, the Ethiopia Social Rehabilitation and Development Fund (ESRDF) provided grant funding through the national budget and the communities cover 10% of capital costs and all operating costs. As in Ethiopia, the projects in Malawi projects were designed to serve the entire population in the supply area, but only through public tap stands.

Reforms in the Namibian water sector followed a similar path as in Zambia in which a government-owned company was tasked with the provision of water services. The main difference was that the government-owned company, the Namibia Water Corporation (NamWater), had the task of providing bulk water to local distributors rather than being responsible for the whole service delivery process themselves. Also, in Tanzania, following the termination of the lease contract for the provision of water services in Dar es Salaam, reforms have been undertaken by the Dar es Salaam Water and Sewerage Corporation (DAWASCO). This includes the introduction of managerial incentives, comparative competition, and benchmarking and strengthening commercial and customer orientation. However, all the utilities have continued to display dependency on government and donor support, loans and subsidies for investments, and systems expansion raises sustainability concerns of the approach (Dakyaga et al., 2018). In Malawi, a CPP between water boards and community-elected Water User Associations (WUAs) in informal settlements, facilitated by local Non-Governmental Organizations (NGOs), community leaders and city councils, led to significant improvements in water supply (Adams & Zulu, 2015; Adams et al., 2019). In Tanzania, the CPP between Community-Based Organizations (CBOs) and public utilities in Dar es Salaam enabled the construction and maintenance of secondary pipes that permitted water connections to households (Adams et al., 2019).

It is, therefore, that the level of decision-making has a lot of influence on the

provision of sustainable water services in the transition democracies. The closer the decision-making level to the local population, the better services are realized irrespective of the form or name given to the decision-making level, municipality, region, county, or district. The common denominator is the ability of the government to give meaningful involvement of the vulnerable population in the decision-making of the utility to the extent that they feel, they are part and parcel of the process.

7. Conclusion

The paper has concluded that the results of efforts by governments in transition democracies to provide sustainable water to their local population have largely depended on the extent to which the country has involved community management, embraced public-private partnerships and devolved decision-making levels. It is imperative to argue that the results of any water supply service provision will depend on the interrelationships between the state, regulators, and citizens as consumers of the services taking into account multi-dimensional interactions among the parties. The governments can either partner with communities like in the cases in Kenya, Uganda and Tanzania or provide water to communities directly through local governments like in Malawi, Ethiopia and South Africa. Whereas a lot of governments have opted for delegated systems of water governance, there should be deliberate moves to completely devolve the water systems to the local governance structures like in Kenya and South Africa to provide water to communities through county/municipal governments, respectively in a manner that the local population meaningfully involved. The multi-stakeholder partnerships should involve local community groups and local governments in ensuring community ownership and engagement in the management of water and sanitation facilities. In all instances, the government plays a role in ensuring a sustainable supply of water.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Adams, E. A., & Zulu, L. C. (2015). Participants or Customers in Water Governance? Community-Public Partnerships for Peri-Urban Water Supply. *Geoforum*, 65, 112-124. <https://doi.org/10.1016/j.geoforum.2015.07.017>
<https://www.sciencedirect.com/science/article/pii/S0016718515001888>
- Adams, E. A., Sambu, D., & Smiley, S. L. (2019). Urban Water Supply in Sub-Saharan Africa: Historical and Emerging Policies and Institutional Arrangements. *International Journal of Water Resources Development*, 35, 240-263. <https://doi.org/10.1080/07900627.2017.1423282>
- Bayliss, K., Tukai, R., & United Nations Development Programme (2011). *Services and Supply Chains: The Role of the Domestic Private Sector in Water Service Delivery in Tanzania* (pp. 1-40). United Nations Development Programme.

- <https://www.undp.org/sites/g/files/zskgke326/files/publications/Tanzania-Water.pdf>
- Cardone, R., & Fonseca, C. (2006). Experiences with Innovative Financing: Small Town Water Supply and Sanitation Service Delivery. In *UN-HABITAT Publication, Meeting Development Goals in Small Urban Centres: Water and Sanitation in the World's Cities 2006*. United Nations Human Settlements Programme.
- Chowns, E. (2015a). Is Community Management an Efficient and Effective Model of Public Service Delivery? Lessons from the Rural Water Supply Sector in Malawi. *Public Administration and Development*, 35, 263-276. <https://doi.org/10.1002/pad.1737>
- Chowns, E. (2015b). Water Point Sustainability and the Unintended Impacts of Community Management in Malawi. In *38th WEDC International Conference* (pp. 1-6). WEDC, Loughborough University.
https://repository.lboro.ac.uk/articles/conference_contribution/Water_point_sustainability_and_the_unintended_impacts_of_community_management_in_Malawi/9586958
- Dagdeviren, H. (2008). Waiting for Miracles: The Commercialization of Urban Water Services in Zambia. *Development and Change*, 39, 101-121.
<https://doi.org/10.1111/j.1467-7660.2008.00470.x>
- Dakyaga, F., Kyessi, A. G., & Msami, J. M. (2018). Water Access Today and Tomorrow: Domestic Water Sustainability under Informal Water Supply Markets in Dar es Salaam, Tanzania. *Journal of Sustainable Development*, 11, 120-141.
<https://doi.org/10.5539/jsd.v11n6p120>
- Estache, A., & Rossi, M. (2002). How Different Is the Efficiency of Public and Private Water Companies in Asia? *The World Bank Economic Review*, 16, 139-148.
<https://doi.org/10.1093/wber/16.1.139>
- Government of Kenya (2002). *The Water Act, 2002. No. 8 of 2002*.
<http://kenyalaw.org:8181/exist/rest/db/kenyalex/Kenya/Legislation/English/Amendment%20Acts/No.%208%20of%202002.pdf>
- Government of Kenya (2010). *The Constitution of Kenya, 2010*.
<http://kenyalaw.org/kl/index.php?id=398>
- Government of Kenya (2016). *The Water Act, 2016. The Kenya Gazette Supplement*.
<http://kenyalaw.org:8181/exist/rest/db/kenyalex/Kenya/Legislation/English/Amendment%20Acts/No.%2043%20of%202016.pdf>
- Hood, C. (1995). The “New Public Management” in the 1980s: Variations on a Theme. *Accounting Organizations and Society*, 20, 93-109.
[https://doi.org/10.1016/0361-3682\(93\)E0001-W](https://doi.org/10.1016/0361-3682(93)E0001-W)
- Hope, R. (2015a). Is Community Water Management the Community’s Choice? Implications for Water and Development Policy in Africa. *Water Policy*, 17, 664-678.
<https://doi.org/10.2166/wp.2014.170>
- Hope, R. (2015b). Is Community Water Management the Community’s Choice? Implications for Water and Development Policy in Africa. *Water Policy*, 17, 664-678.
<https://doi.org/10.2166/wp.2014.170>
- International Water and Sanitation Centre (2009). *Triple-S Briefing: Providing Reliable Rural Water Services That Last*. IRC WASH Centre.
- K’Akumu, O. A. (2007). Toward Effective Governance of Water Services in Kenya. *Water Policy*, 9, 529-543. <https://doi.org/10.2166/wp.2007.025>
- Kessides, I. (2004). *Reforming Infrastructure. Reforming Infrastructure*. World Bank and Oxford University Press. <https://doi.org/10.1596/0-8213-5070-6>
- Kirkpatrick, C., Parker, D., & Zhang, Y.-F. (2010). Regulatory Impact Assessment in Developing and Transition Economies: A Survey of Current Practice. *Public Money & Man-*

- agement, 24, 291-296. <https://doi.org/10.1111/j.1467-9302.2004.00436.x>
- Kjellén, M. (2006). *From Public Pipes to Private Hands: Water Access and Distribution in Dar es Salaam, Tanzania* (1st ed.). Stockholms Universitet.
- Kumar, M. (2009). *Institutional and Regulatory Economics of Public Private Partnerships in Infrastructure: Evidences from Stochastic Cost Frontier Analysis and Three Case Studies of Urban Water Utilities*. Ph.D. Thesis, The George Washington University.
- Lane, J. (Ed.) (2002). *Water Sanitation Programme*. The World Bank. <https://documents1.worldbank.org/curated/en/829801468316132939/pdf/372900WSP0Annual0report0020301PUBLIC1.pdf>
- McGranahan, G., & Kjellén, M. (2006). *Informal Water Vendors and the Urban Poor* (pp. 1-24). Human Settlements Discussion Paper, International Institute for Environment and Development (IIED).
- NPS (2023). *National Panel Survey, Wave 5, 2020-2021*. https://www.nbs.go.tz/nbs/takwimu/nps/wave5/NPS_Wave_5.pdf
- Nyarko, K. B., Oduro-Kwarteng, S., & Owusu-Antwi, P. (2011). Local Authorities, Community and Private Operators Partnerships in Small Towns Water Service Delivery in Ghana. *Physics and Chemistry of the Earth*, 36, 1078-1084. <https://doi.org/10.1016/j.pce.2011.08.007>
- O'Flynn, J. (2007). From New Public Management to Public Value: Paradigmatic Change and Managerial Implications. *Australian Journal of Public Administration*, 66, 353-366. <https://doi.org/10.1111/j.1467-8500.2007.00545.x>
- Obosi, J. (2015). *The Public Service Delivery Challenge: A Public Private Partnership in Water Service Provision in Kenya*. Scholars' Press. https://www.academia.edu/26078790/The_Public_Service_Delivery_Challenge_A_public_Private_Partnership_in_the_Provision_of_Water_Services_in_Kenya
- Obosi, J. O. (2011). Public Private Partnerships in the Privatization of Water Service Delivery in Kenya. In U. Uhlig (Ed.), *Current Issues of Water Management* (pp. 207-228). InTech. <https://www.intechopen.com/>
- Obosi, J. O. (2017). Impact of Public-Private Partnership on Water Service Delivery in Kenya. *Open Journal of Political Science*, 7, 211-228. <https://doi.org/10.4236/ojps.2017.72017>
- Obosi, J. O. (2018). Nature and Scope of Public Private Partnerships in the Water Sector in Kenya. *Open Journal of Political Science*, 8, 12-34. <https://doi.org/10.4236/ojps.2018.81002>
- Obosi, J. O. (2020). Community Management and Water Service Delivery in Africa. In P. T. Chandrasekaran, M. S. Javaid, & A. Sadiq (Eds.), *Resources of Water* (p. 13). IntechOpen.
- Obosi, J. O. (2021). Public-Private Partnership and Public Policy in Africa. In G. Onyango (Ed.), *Routledge Handbook of Public Policy in Africa* (pp. 213-223). Routledge. <https://doi.org/10.4324/9781003143840-22>
- Pena, D. (2015). Urban Water Management in São Paulo to Achieve Universal Access to Water Supply and Sanitation Services. In I. Aguilar-Barajas, J. Mahlknecht, J. Kaledin, M. Kjellén, & A. Mejía-Betancourt (Eds), *Water and Cities in Latin America: Challenges for Sustainable Development* (pp. 73-88). Routledge. <https://www.routledge.com/Water-and-Cities-in-Latin-America-Challenges-for-Sustainable-Development/Aguilar-Barajas-Mahlknecht-Kaledin-Kjellen-Mejia-Betancourt/p/book/9781138364233#>
- Prasad, N. (2006). Privatisation Results: Private Sector Participation in Water Services af-

- ter 15 Years. *Development Policy Review*, 24, 669-692.
<https://doi.org/10.1111/j.1467-7679.2006.00353.x>
- Tati, G. (2005). Public-Private Partnership (PPP) and Water-Supply Provision in Urban Africa: The Experience of Congo-Brazzaville. *Development in Practice*, 15, 316-324.
<https://doi.org/10.1080/09614520500076068>
- UNESCO (2023). *The United Nations World Water Development Report 2023: Partnerships and Cooperation for Water*.
<https://reliefweb.int/report/world/united-nations-world-water-development-report-2023-partnerships-and-cooperation-water-enit>
- WASREB (2012). *Impact: A Performance Review of Kenya's Water Services Sector—2010/11*.
<https://www.wasreb.go.ke/>
- Webb, P., & Iskandarani, M. (2019). Water Insecurity and the Poor: Issues and Research Needs. *SSRN Electronic Journal*.
- WHO/UNICEF (2015). *Joint Water Supply and Sanitation Monitoring Programme. Progress on Sanitation and Drinking Water: 2015 Update and MDG Assessment* (p. 90). World Health Organization.
- World Bank (1999). *Entering the 21st Century: World Development Report 1999/2000* (1st ed., Vol. 1). Oxford University Press. <https://doi.org/10.1023/A:1021477922789>
- World Bank (2004). *World Development Report, 2004: Making Services Work for Poor People*. <https://digitallibrary.un.org/record/3964266?ln=en>
- World Health Organization/United Nations (2017). *Progress on Drinking Water, Sanitation and Hygiene Launch Version*.
<https://www.unicef.org/reports/progress-drinking-water-sanitation-and-hygiene>
- WSP (2003). *Governance and Financing of Water Supply and Sanitation in Ethiopia, Kenya and South Africa: A Cross Country Synthesis*.
<https://documents1.worldbank.org/curated/en/744961468036303198/pdf/463620WSP0Box31UBLIC10af1governance.pdf>
- Wutich, A., Beresford, M., & Carvajal, C. (2016). Can Informal Water Vendors Deliver on the Promise of A Human Right to Water? Results from Cochabamba, Bolivia. *World Development*, 79, 14-24. <https://doi.org/10.1016/j.worlddev.2015.10.043>
- Zaki, S., & Nurul Amin, A. T. M. (2009). Does Basic Services Privatisation Benefit the Urban Poor? Some Evidence from Water Supply Privatisation in Thailand. *Urban Studies*, 46, 2301-2327. <https://doi.org/10.1177/0042098009342902>
- Zhang, S., Chan, A. P. C., Feng, Y., Duan, H., & Ke, Y. (2016). Critical Review on PPP Research—A Search from the Chinese and International Journals. *International Journal of Project Management*, 34, 597-612.
<https://doi.org/10.1016/j.ijproman.2016.02.008>