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Nature and Scope of Public Private Partnerships in the Water Sector in Kenya

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Abstract

Public-Private Partnership refers to an approach which combines positive aspects of Public and private sectors to come up with better public service delivery model. The PPP arrangements neither appear uniformly nor apply in all circumstances. The study investigated whether or not, through water sector reforms PPP has been realized in the provision of water services in Kenya. Using Public choice theory the study used secondary data and primary data from seven (7) Focus Group Discussions, and 33 Key informant interviews. From seven (7) WSPs, the study found out that PPPs exist in regulation, provision and financing of water services and that in Kenya, PPPs have been incorporated more by the community water projects than the Public water companies.

Keywords

Privatization, Water Policy, Reforms, Public Private Partnership, Management

1. Introduction

The provision of affordable water in the right quantity at the right time has been elusive to the government of Kenya since independence. Several strategies ranging from state provision through both Water and Local Government ministries until 2002 did not help much. IT was observed that increased access to clean water was inimical to the attainment of Millennium development Goals (MDG). The critical role played by access to water either as a development agenda or as a public health concern, therefore invited concerted efforts from both the government and the private sectors initially, independently but after 2002, in partnerships in an effort to improve its service delivery to households. The main drive for the PPP in Kenya was both mitigation against budgetary constraints and implementation of water sector reforms as New Public Management Initia-

tives towards improving public service delivery.

The implementation of Water Act of 2002 in Kenya, was therefore a realization that neither the government nor the private entities alone could succeed in delivering water in the desired quality and quantity to the citizens. The government therefore acknowledged four types of water service providers as the Public Limited Companies, Community Water Projects, National Water Conservation and Pipeline Corporation and Private Individuals through the commercialization principle (K'Akumu, 2007). Whether as public enterprises, joint ventures, management contracts or Built operate and Transfer (BOT), Public Private Partnerships (PPP) became part and parcel of water service provision in Kenya. Although PPP has been used all over the world in the provision of public services like water, electricity, infrastructure and health with varying degrees of success and/or failure, it is in the water sector especially in Sub Saharan Africa that the PPP has no clear demarcations. It has neither a distinct feature nor character of its own, but rather assumes the ones conditioned by socio-economic and political environmental influences.

However, some governments have adopted Public Private Partnerships strategies to attract private sector complementarity in designing, financing, building, maintenance of infrastructure and even to provide operational services (Barlow, Roehrich, & Wright, 2013). In that respect, Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) have facilitated various forms of partnerships with the public sector in the provision of water services in developing countries mainly in support of communities and individuals in provision of water through vending and establishing alternative water supply sources.

They could take the form of shallow wells, boreholes, commercial water connections, or household connections to the piped networks, or from water kiosks. Some vendors typically carry water in containers loaded on bicycles, hand-pushed carts, or even animal-drawn or motorized carts, and bring it to households and small businesses (Mcgranahan & Kjellén, 2006).

In Kenya, the strategy appeared to have been boosted by World Bank and UN Habitat's approaches. Whereas, the former supported the integration of small scale water service providers into the formal water sector so that they could expand their services and help improve the services to the poor and those in the peri-urban settlement through legal recognition of the informal providers, development of cooperation of utilities, informal providers and government authorities, regulatory measures for pricing and quality, encouragement of the formation of vendor associations and consideration of micro finance initiatives to facilitate their investments (McGranahan & Satterwaite, 2003; Dagdeviren, 2008), the latter, paid more attention to community based water supply in which local Community Based Organizations were partnered in their operations with International NGOs which facilitated technical and financial resources (Dagdeviren & Robertson, 2011). The government agencies partnered with var-

ious private actors in the provision of water. Alternatively, private actors in the form of local communities, individuals, corporates and Non-Governmental Organizations invited government facilitation in various manners and extent in water service delivery. The spontaneity and random manner in which water service providers sprung and interacted with other stakeholders prompted proliferation of PPP arrangements in Kenya. In the absence and/or ambiguity of PPP policy in Kenya, different types of private initiatives have emerged in the water sector as Water Service Providers (WSPs); water service regulators; and water service provision financiers (Obosi, 2011). The initiatives not only expanded the network but also the extent of both organizational and institutional interaction of stakeholders within water service provision sector with far reaching outcomes. The paper has therefore attempted to establish the nature and extent of the partnerships and their relationship with the quality of water service delivery. To what extent has the PPP permeated the organizational management of water service provision in Kenya and with what results? Did the institutional arrangements in the water sector condition the operations of PPPs and influenced the choice of transactions made by each stakeholder?

The paper has argued that the ineffective service delivery by the existing institutional arrangements provided space for fluid and flexible public- private partnerships whose nature and scope were conditioned by independent choices made by each WSP on which actors to interact with and in what way for survival thereby producing different results in terms of water service delivery for the common good, simultaneously.

2. Theoretical Framework

The paper has argued that Public private partnerships in the provision of public goods and services simultaneously integrate the identified interests of flexible public and private actors which have realized that neither of them can independently and efficiently provide the common good. The result of the chosen stakeholder interactions depends on the socio-economic and political environments with no predetermined outcome. Whereas the participation can be apportioned based on the decision on choice of a community or company, the benefits are non-excludable. It is not possible in most cases to segregate the public and private interests for each of them can sometimes possess the parts of either party due to blurred boundaries.

In the context of water service provision in Kenya, at face value, there are public water companies, private water entities, and community water projects, water service regulators and water service financiers. Public water companies are under private management contracts to provide water to both public and private consumers. The community water projects are indeed a conglomeration of private individuals in the same locality who then invites support from the government and continue to operate as private entities in delivering public good. Public Choice theory as founded on economic theory of choice of public goods as ad-

vanced by Buchanan (Bernholz, 1980; Buchanan, 2003; Crew & Rowley, 1988; Mueller, 2008; Ostrom & Ostrom, 1971a, 1971b, 1977) was therefore identified as the best in explaining the PPP in water service provision. Public goods may be naturally available; produced by the government; produced by private individuals and firms, by non-state collective action, or they may not be produced at all. The goods and services may be provided either on the governments own accord or as a result of demands for their provision placed by the citizens.

Although Sustainable Value Creation Theory could as well have been used to explain the PPP, its limitation was its treatment of the actors as either distinctly private or public whose partnerships is only realized in outcomes in terms of common interest (Mahoney et al., 2009) or public interest considered on the basis of benefits accruing from addressing a wide range of public policy concerns by various stakeholders in the pursuit of the delivery of public good or services (Kivleniece, Ilze, & Quelin, 2012). This position is also supported, to an extent, by Ostrom in an analysis of the nature of goods and services that pertain the joint or exclusive use, consumption or creation for the market (Ostrom & Ostrom, 1971a, 1971b, 1977). The theory, however, is very strong in appreciating the interaction of distinctive private and public stakeholders whose process management results in a common or public good. In our study of stakeholders in the Kenya's water service delivery sector, the boundaries are blurred and their respective interests are not only known but also integrated beforehand hence the desired capacity building or support to deliver the desired public goods. Partnerships are found in many different types and sizes, and the boundaries between public and private are sometimes blurred, which makes public-private partnerships (PPPs) difficult to classify and to clearly define (Bakker, 2003). The United Nations Committee on Economic, Cultural and Social Rights declared that water should be treated as a "social and cultural good" and that everyone should have "sufficient, affordable, physically accessible, safe and acceptable water for personal and domestic uses". The need for public provision becomes necessary because of the difficulty in identifying the extent of need by an individual and how much should be shared. In essence, the private sector faces serious challenges in providing socially desirable levels of the public good. The study focuses on whose responsibility it is to provide water, who provides for whom and at whose cost with what effects and what organizational forms (Kjellén, 2006). Once privatized, water and sanitation are deemed to be economic or private goods, while at the same time considered social goods to which everyone should have a right of access.

The argument is that there is some form of organized water supply in every authority and that the endeavours to do so will take some form depending on which country or regime, whether private or public, called a Water Service Provider (WSP). Whereas some larger localities have tended to delegate their water supplies to private operations, smaller local authorities have opted for either joint ventures or direct management (Kjellén, 2006). Depending on the level of engagement, customers of the public utility water services may opt for alterna-

tives when they are either unable to access the services or got better alternatives. The assumption is that implementing the correct organizational form (such as a cooperative or community ownership) will automatically give rise to changes in behaviour and thus in management outcomes (Bakker, 2008).

The WSPs are answerable to the Water Services Regulatory Board (WASREB) through a Water Service Board (WSB). A government may subsidize production of such a public good in the private sector to increase both access to a larger number of its citizen who could otherwise not have afforded its actual cost. It may also choose to regulate either the standards of production or service delivery of the public good as per policy as guided by either WASREB or Water Regulation and Management Authority (WARMA). Due to the high cost of investment in water infrastructure, the government is bound to involve various development partners with different interests. It is incumbent upon each Water Service Provider (WSP) to pay regulatory charges to government agencies, seek financial support from governmental agencies including Water Service Trust Fund (WSTF), Constituency Development Fund (CDF), NGOs, and Individuals to boost either infrastructural development or maintenance.

The consumers will then be able to opt for services from the most reliable, affordable and easily accessible WSP.

The study argues that a regulatory policy of the government influences the spheres of operation of public and private enterprises thereby determining their nature and scope depending on the latitude of interactions amongst the stakeholders. The framework allows those not satisfied with the services of the government or one service provider to seek better alternatives elsewhere, mostly likely to be found in partnerships. It is unlikely, that good service delivery could be realized in a poor partnership structure. If private organizations don't reap all the benefits of a public good which they have produced, their incentives to produce it voluntarily might be insufficient. Consumers can take advantage of public goods without contributing sufficiently to their creation. In a nutshell, WSPs can be formed and operated by a community, a public or private company whose operations are regulated by WASREB. Public Water companies are owned by County governments but offer services in competition with the privately owned community water projects. The success of each WSP is dependent on the number of partners it successfully engages either as co water providers or water provision financiers. Equally, water service financiers like development partners will only invest in the provision of water business if it guarantees good returns. The cost of water is likely to be cheaper at a WSP which has engaged more partners than that which has fewer partners that help it mitigate the operational and maintenance costs. The consumers will then make their choices appropriately.

3. Methodology

Study Site

The study was conducted in the area covered by Lake Victoria South Water

Board (LVSWB), one of the Water Service Boards (WSBs) in Kenya. Others are Lake Victoria North Water Board (LVNWB), Athi, Tana, Coast, Rift Valley, Northern and Tanathi. According to Impact Report no.3 of 2008, LVSWB served a population of 6,868,876,000 people then making it the largest in Kenya Water Services Regulatory Board (WASREB, 2010).

Survey Design

The study used both longitudinal and cross-sectional designs. Longitudinally, it was designed to assess the trend that has been observed between 2002 when water sector reforms were implemented in Kenya to 2012 across seven (7) Water service Providers (WSPs) in Kenya. At the same time, the study looked at interactions amongst stakeholders at two fronts first; between Public limited companies and Community water projects, and secondly, Water service providers in different areas within the Water Service Board. This was to bring out the nature and scope of public private partnerships in the water sector under different settings within the ten years period in WSPs in different areas. The basis of the survey was the Impact Reports numbers 3 and 4 published by the Water services regulatory Authority (WASREB) in Kenya as the single most comprehensive documentation on water services in Kenya based on access, customer satisfaction, sanitation coverage, water quality, and hours of supply, connectivity, Operations & Maintenance and affordability. Impact report no. 3 showed the sector performance of 7 WSBs and 55 WSPs in 2007/2008 Financial year while no.4 showed the performances of 8 Water Service Boards (WSBs) and 72 Water Service Providers (WSPs) in 2008/2009 Financial Year.

The WSPs were each categorized into 3 Large having between 10,000 - 34,999 connections; Medium with between 5000 - 9999 connections and Small category with less than 5000 connections. The performances of each WSP under each WSB were ranked by WSB and WSPs nationally for each financial year. It was based on the ranking criteria that Athi was first for both financial years, LVN sixth while LVS slumped from position four in 2007/2008 to position 7 in 2008/2009 Financial year despite having the highest number of WSPs and the largest population size. Like other WSBs, LVS had two categories of WSPs under its jurisdiction: Public Limited Companies (PLCs), and registered Community Projects.

Sampling

The study used stratified random sampling method to select water service providers from each stratum of large, medium and small categories from the thirteen (13) registered WSPs under LVSWSB. The board covered 9 counties, namely, Kericho, Bomet, Kisii, Migori, Nyamira, Homa Bay, Kisumu, Siaya, and Nandi. There were 3 Large WSPs, namely, KEWASCO (Kericho) and KIWASCO (Kisumu), and Chemosit; One Medium WSP, SNWSCO. The Small category included 4 PLCs; SIBO, GUSII, GWASSCO, and MIKUTRA and 5 registered community water projects: Boya, Ahono, Nyando, Mogombet and Nyasare. In order to attain representativeness, we randomly sampled Chemosit and

KIWASCO from the large stratum, SNWSCO from Medium stratum, MIKUTRA from Small PLCs stratum. Nyasare, Boya, and Mogombet were selected from the Community Water Projects category. In total seven (7) WSPs were sampled. Care was taken to ensure that the community water projects were selected from each area covered by a sampled PLC for comparison of purposes.

From each of the WSPs, we conducted one (1) Focus Group Discussion (FGD) each comprising 8 members (water vendors, consumers, officials of a WSP, community leaders) and 3 key informant interviews proportionately drawn from each of the 7 sampled WSPs. Other key informant interviewees included: District Water Engineers for Nyando, Bomet, Homa Bay, Migori, Chief Executive Officer and Chairman WSTF, CEO/Representative WARMA, CEO WASREB, and 4 Professionals/Technocrats with relevant experience in the Water service provision sector. In total, 7 FGDs and 33 key informant interviews were conducted.

Data Collection

The study used both secondary and primary sources of data. The secondary data was collected using study document reviews of relevant text books and journals on water governance, official government publications, Each Water company bulletins and sector policy papers. The primary data collected using interviews, participant observation, and Focus Group Discussions (FGDs). The three respondents per WSP and the Key Informants were asked to explain the governance structure and the operations of the WSPs through an interview guide. The interviews focused on the descriptive and situational analyses of Water Service providers, water access, the organizational structure of water service provision, the interaction amongst water service provision stakeholders and institutions and the resulting impact of the changes observed. The FGDs also focused on the same issues except that group members were answering the same questions put to the group in turns in one sitting and responses recorded. The researcher prepared an interview guide which he used in each case. Each Focus Group Discussion comprised at least 8 members: a water service consumer, WSP official, a member of local Administration, a political leader, a water vendor, and a Water retailer, and a member of local NGO/CBO. The interviews were conducted for a period of one month. Specifically, respondents were asked to describe their experiences and observations with regard to asset ownership, utility management, operations & maintenance, popular participation, institutional structure, and management of distribution network of the respective WSPs; the scope of interaction amongst WSPs, regulators and service financiers in the water sector in each area. They were further asked to identify partners in each WSP and describe how they related with other stakeholders in the water service delivery and to describe the nature of PPPs in the water service provision

Data Analysis

The data collected from key informants and Focus Group Discussions were analysed after transcribing the FGD and key informant interview reports to establish areas of convergence in terms of views and observations on the issues

raised using axial coding method. The report was presented using figures and tables on the extent of interactions and involvements over time and space. The underlying basis of the analysis was to establish the role that the public choices played in facilitating the provision of water. Was there deliberate action by institutional stakeholders to influence or mitigate actions of other actors in terms of choice of partners? Did some WSPs gain more from the existing arrangements than others and why?

4. Results and Discussion

The study established that there were two forms of public private partnerships in Kenya: Management contracts, represented by Water Companies and Community Private Ventures represented by Community Water Projects. To a large extent, the nature of the WSPs informed the scope of public private partnerships in each WSP. The nature referred to the institutional arrangements within each WSP, while the scope referred to the organizational framework around which various actors in water service provision interacted. The results and discussions on nature are presented first followed by that on the scope of Public Private Partnerships.

4.1. The Nature of Public Private Partnerships

WSPs have different sources of water supply. They therefore have different strategies for providing water to their customers. The strategies involve establishing public private partnerships in different forms and characteristics. Table 1 shows the nature of PPPs in the water service provision.

Table 1 shows that all the four water companies, namely, Chemosit, KIWASCO, SNWSCO and MIKUTRA were management contracts while all the community water projects, namely, Mogombet, Boya, and Nyasare community water projects were private ventures.

The table further shows that each of the management contracts had water Service Provision Agreements (SPAs) of 5 years the government through the respective local authority councils. The Water Companies were answerable to both the WSB and to the respective county governments and formerly local authorities through lease agreements. Community water projects also applied for licences to provide water through Service Provision Agreements (SPA) from WASREB.

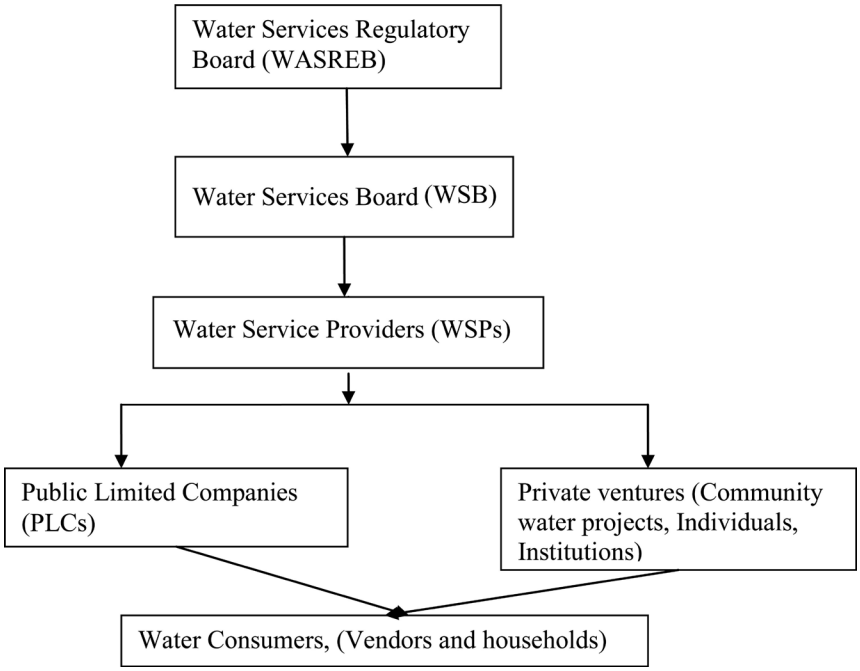
However, unlike management contracts, community water projects applied for water service provision licenses of indefinite period thereby making it easier for community projects than the management contracts to engage in more partnerships for long term infrastructural development. Figure 1 shows the institutional arrangements in the water service delivery process.

Figure 1 shows that WASREB is in charge of water service provision in Kenya. It provides water provision licenses to each of the eight (8) Water Service Boards (WSBs) which in turn leases the function through Service Provision

Table 1. Public-private partnerships in water enterprises.

NATURE OF WSPs	WATER COMPANIES				COMMUNITY WATER PROJECTS		
Organization/WSP	CHEMOSIT	KIWASCO	SNWSCO	MIKUTRA	MOGOMBET	BOYA	NYASARE
Responsibility	Public	Public	Public	Public	Public & Private	Public & Private	Public & Private
Form	Management Contract	Management Contract	Management Contract	Management Contract	Private	Private	Private
Asset ownership	Public	Public	Public	Public	Private	Private	Private
Tariff regulation	Public	Public	Public	Public	Public	Public	Public & Private
Capital investment in infrastructure	Public	Public	Public	Public	Private	Private	Private
Cost and quality Monitoring	Public	Public	Public	Public	Public & Private	Public & Private	Public & Private
Utility management	Public & Private	Public & Private	Public & Private	Public & Private	Private	Private	Private
Operations and Maintenance	Public & Private	Private	Public & Private	Public & Private	Private	Private	Private
Working capital	Public	Public	Public	Public	Private	Private	Private
Commercial risk	Public	Public	Public	Public	Private	Private	Private
Popular Participation	None	AGM, BODs, Retailers, Deleg. line Managers	None	None	AGM, Management Committee	AGM, Management Committee	AGM, Management Committee
Legal & Institutional structure	Service Provision Agreement	Service Provision Agreement	Service Provision Agreement	Service Provision Agreement	Service Provision Agreement	Service Provision Agreement	Service Provision Agreement
Management of distribution network	Direct	Direct & Delegated	Direct	Direct	Direct	Direct	Direct
Source of water	River	Lake	Lake	River	River	Bore-hole	Natural Springs & Bore hole
Geographical coverage	Urban	Urban	Urban & Rural	Urban	Rural	Rural	Urban & Rural
Methods of water delivery	Indiv. Connection & Water Kiosks	Indiv. Connection & Water Kiosks	Indiv. Connection & Water Kiosks	Indiv. Connection & Water Kiosks	Indiv. connection	Indiv. connection	Indiv. Connection & Water Kiosks
Institutional Stakeholders	WSRB, WARMA, MWI, WSB, EU, Nile Basin Initiative	WSRB, WARMA, ADB, AFD, WB, MWI, CC	WSRB, WARMA, MWI, CDF, UNICEF, WSTF	WSB, WARMA, MWI	CDF, Church, WSB, WARMA, MWI	CDF, NGOs, UNICEF, CHURCH, WSB	NGO, WARMA, WSB
Contract duration	5 years	5 Years	5 Years	5 Years	Indefinite	Indefinite	Indefinite
Low							High
Private Participation Autonomy							

Source: Author's own compilation.



Source: Author's own compilation

Figure 1. The nature of institutional arrangements of Water Service Delivery in Kenya.

Agreement (SPA) to individual Water Service Providers to deliver water to the consumers. The consumers in Kenya receive water from either a government company (Public Limited Company) or a Private Venture which could be an individual enterprise, community project or a People's Organization. The nature of public private partnerships therefore revolved around the institutions of water service boards, service providers and water regulation with the WSPs being central to all the interactions involving asset ownership, management of the distribution network, service provision management and geographical coverage. The determination of stakeholder interaction was conditioned by the government agencies for the PLCs, the community water projects had a lot of choices from both the public and private sectors to make with a lot of flexibility for mainly socio-economic purposes.

This somewhat contrasted the experience in Uganda where such process was not only restricted but also characterized by the transfer of service production and provision from the public sector to private actors, and the incorporation of market institutions within the public domain hence resulting into a political process involving organizations and actors operating at different levels (Mbuvi & Schwartz, 2013).

Asset Ownership

The Asset ownership is predetermined for the Public Limited Companies. All the water distribution assets are owned by the Water Service Boards but leased to the WSPs for a term of five years contract. The PLCs though restricted in terms of development of the infrastructure, they are responsible for maintenance and operation to the extent that they are free to choose the best alternative for

their management and maintenance. They are free to choose who they partner with especially in distribution. For example in Nyalenda informal settlement in Kisumu, KIWASCO partnered with landlords through delegated management system to only distribute water to the tenants who become responsible for the maintenance of the water line. Another area of conflict is the ownership of Assets by the Water Service Board, an agency of the national government instead of the County government despite the fact that water supply is a devolved function. Whereas the WSPs supply water to consumers, the WSBs retain the responsibility for asset development and large scale investment in infrastructure. There was however a slight deviation in the asset ownership under SNWSCO in West Karachuonyo Community water supply scheme (WKCWP) where private sector initiative caused an extension of a 6.5 km pipeline with funds from Water Services Trust Fund (WSTF) which they continue to own like all other community water projects even where the expansion had been facilitated through donor support as was the case of Boya and Mogombet water projects which were supported by the CDF kitties of Nyando and Bomet constituencies, respectively. The CDF management committees were more concerned with increasing access to the water services than ownership of the lines. For Mogombet, the Catholic Diocese of Nakuru also did not claim the ownership of the expanded pipeline nor the water storage tank they helped put in place in the same way the Austrian Development Cooperation (ADC), 1997-2003; 2003-2008—through an NGO HORIZON 3000 also left the ownership of the assets they helped put in place to the management of Nyasare water supply association. The policy which currently puts asset management at the hands of the national and not the county governments undermines the capacity of the former to effectively manage the process of water distribution since some actors could deal with other stakeholders beyond its jurisdiction. The situation is unlike, Ghana where a District Water Management Authority which not only manages the stakeholder engagement but also the Asset of the Water PLCs within its jurisdiction (Nyarko, Oduro-Kwarteng, & Owusu-Antwi, 2011). This is consistent with the observation that in Kenya, WSPs which were in charge of the water infrastructural development as well performed better in terms of service delivery than those which did not (Obosi, 2017).

Management of Water Service Providers (WSP)

The management of each WSP differed in terms of institutional arrangements through extent and scope of stakeholder interactions. Each water company was managed by a Board of Directors comprising the relevant stakeholders although day to day management of the company was done through competitively recruited managers. However, other than for CHEMOSIT and KIWASCO, the choice of the Managing Directors for SNWSCO and MIKUTRA was heavily influenced by LVWSB. A key informant within SNWSCO stated that "… there was no free choice in recruiting Managing Directors of the Company. In fact the government continues to run the company".

Other than being in the government's office spaces, the current MDs were never competitively recruited but appointed by the LVSWSB from amongst the retired District Water Officers from the areas concerned *i.e.* "Migori for MIKUTRA and Homa Bay for SNWSCO. How do you expect such a manager to run the profitable company?" The arrangement therefore limited the interactions to government and consumers only. Accountability through Annual general meetings was not feasible to the extent that even supervisory role of the small scale water producers within the vicinity was compromised.

Unlike MIKUTRA and SNWASCO, the managers of KIWASCO were competitively recruited and put on a performance contract which included more stakeholder involvement. It is in this respected that KIWASCO practiced delegated management incorporating landlords, water vendors, financial agencies like Agency for French Development (AFD) and consumers of water services within the informal settlements of the city. Generally, the management committees of community water projects like Boya and Mogombet, unlike Nyasare were drawn from the members of the respective communities without necessarily being professionals. They were equally to engage all possible stakeholders including financiers from both the public and the private sectors. The WSPs which engaged free choice in selection of partners and mode of operations tended to have more networks and participatory management and subsequently better service provision than the rigid water companies consistent with finding that community water projects offered better services in terms of cost of water, customer care, and increased than PLCs (Obosi, 2015).

Whereas KIWASCO implemented a delegated management model where tenders for running water kiosks in the informal settlements like Nyalenda were processed competitively and awarded to individuals who in turn collected revenue on behalf of the company, Chemosit Water supply company operated water schemes system in which each of the 4 schemes had a manager; water supply operator; line Patroller; meter reader; and revenue all from the private sector while MIKUTRA and SNWSCO relied on seconded staff from the Ministry of Water and Irrigation (MWI) except for the respective Managing Directors. The management of the water companies embraced the supply of water through kiosk operators for increased access where it was not possible to maintain a water pipeline.

The approach exhibited by Kenyan WSPs contrasted the Uganda case where the National Water and Sewerage Company (NWSC) used its own bureaucracy to sign performance contract with very positive results through emphasized efficiency, competition, performance management and entrepreneurialism (Mbuvi & Schwartz, 2013).

Management of the Distribution Network

Each WSP had a system of water distribution network in their areas of operation. The Water Management Committees had representatives from each community distribution zones. They met periodically to review performance and

reports from members. For example, the management committee of Boya met monthly and reported to the members/consumers through an Annual General Meeting (AGM). The committee comprised Chairman, Secretary, Treasurer, 6 line representatives and 2 co-opted members including the area chief and 1 consumer.

Each community water project decided on terms and conditions of connectivity to customers/consumers. Like in the management contracts, individual meter connections were the most preferred method of distribution amongst community water projects. Nyasare had also cooperated 42 water kiosks and several community water stand points. Boya community water project levied connectivity fee of 2500 = (USD 25). Nyasare and Mogombet charged a minimum of monthly standing charge of Kshs 300.00 (USD 3). However; KIWASCO perfected a delegated management through retailers in Kisumu.

Unlike in the Water Companies, the expansion of community water projects' network was mainly determined by demand from consumers and finance. For management contracts, need for a network expansion had to go through a bureaucratic chain through county authority, water service board, WASREB all the way to the Principal Secretary of the Ministry of Water and Irrigation for clearance. It was therefore more likely to find reduced distance to water points in community water projects than in management contracts (Obosi, 2014).

Geographical Coverage

In terms of geographical coverage, all the management contracts except SNWSCO covered only urban centres. This could be attributed to the historical origins of the water supply which began as a preserve of the urban few from the colonial times and persisted through independent Kenya. The community projects were mainly rural based except Nyasare community water supply which had expanded to cover half of Migori town. Unlike the water companies which operated under management contracts, all the community water projects were not tied to the local councils but were registered with LVWSB as private water service providers and paid proportionate fee from its revenue. Community water projects were more flexible in engaging partnerships with both public and other private sector organizations in extension of water provision services.

All the community water projects operated water services only without sanitation component unlike the Water Companies. They were started as self-help initiatives from residents of a neighborhood with similar objectives for their self-interests. This was unlike in most parts of Africa and Latin America, where for example, in Cochabamba, Bolivia, wealthy consumers and businesses received municipally subsidized water through a network for resale to the poor who relied on water delivered by tanker trucks, private wells, or small−scale, community-run water systems (Bakker, 2008).

All the management contracts except KIWASCO which operated in Kisumu city only, had wide geographical coverage through satellite schemes in an effort to boost water access to a wider population. For example CHEMOSIT had

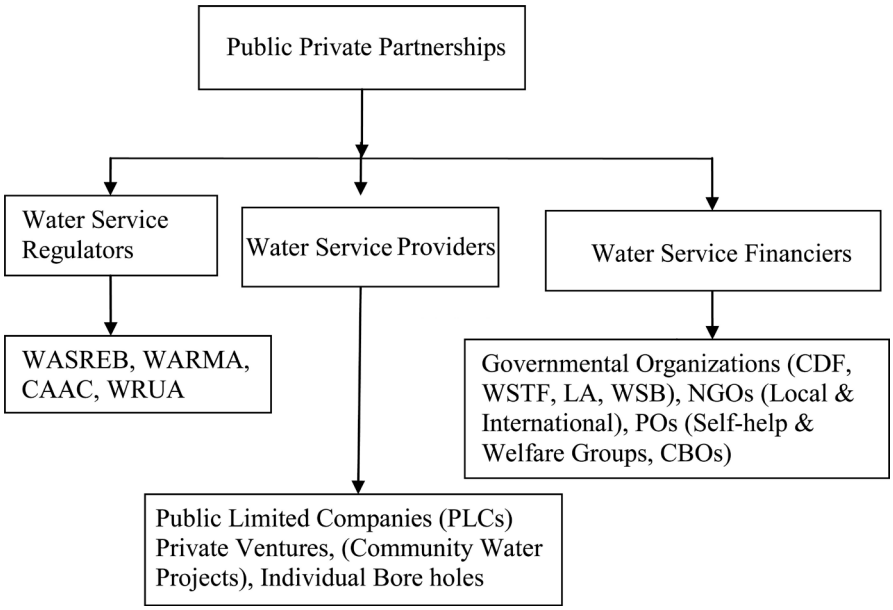
schemes clustered in Bomet, Kericho, Kipkelion and Chepalungu areas. Each of the community water projects operated from a central point of distribution. Mogombet served a radius of 13 km; Boya 4.5 km while Nyasare 5 km.

The spatial distribution of the supply outlets of WSP had a bearing on the extent and nature of PPPs. In more expanse areas like in Chemosit and SNWSCO, autonomous water schemes each attracted different partners for different purposes. In spite of the autonomies of each schemes, the head office still interacted with them in terms of budgetary, policy directions and operational support. For example, whereas Sosiot scheme of Chemosit WSP received subsidized water meter from French Agency for Development (AFD), West Karachuonyo of SNWSCO partnered with Koguta community water projects to extend water pipeline, Oyugis was at one time shut out by WARMA for non-payment of abstraction fee while Bomet suffered from unpaid electricity bill which had bailed out by the National government's Water Ministry.

4.2. Scope of Public Private Partnerships

The scope of interactions amongst the stakeholders depended on the existing policy each WSP had with the stakeholders. The study investigated the public private partnership arrangements manifested in the process of interactions amongst the actors. It was established that the actors in water service provision are either interventionists or facilitators and are classified into three: Water service providers; Water service Regulators; and Water Service Financiers. A schematic presentation of the areas of interactions within the Water service provision is as shown in Figure 2.

Figure 2 shows that the scope of public private partnerships cover Water services regulators like WASREB, Water Regulation and Management Authority



Source: Author's own compilation

Figure 2. The scope of PPP in Water Service Delivery in Kenya.

(WARMA), Catchment Advisory Council (CAAC) and Water Resource Users Association (WRUA), Water Service Providers (WSPs) which included Public Limited Companies and Private Ventures and Water Service Financiers which included Governmental Organizations (CDF, WSTF, LA, WSB), NGOs (Local & International), and POs (Self-help & Welfare Groups, CBOs). Each of the formal WSPs, unlike informal ones, had a SPA with LVSWSB as an agent but issued by WASREB. The informal ones included unregistered Community Based Water projects, private individual borehole owners, and private institutions like schools, hospitals, and churches.

Water Service Providers (WSPs)

The WSPs registered with LVWSB included water utility companies namely, KIWASCO, SNWSCO, MIKUTRA and Chemosit; registered Community water projects, Mogombet, Boya, and Nyasare Water Supply Association. In this context, the management contract holders interacted with other WSPs, mainly in the provision of water kiosks to the consumers for increased access where it was not possible to maintain a water pipeline.

Each kiosk undertaker was provided with a bulk meter and in turn sold water to consumers. KIWASCO for example, provided subsidized water kiosks to the informal settlements where it had implemented a delegated management model where tenders for running of water sources in the informal settlements like Nyalenda was awarded to individuals. The operators collected revenue on behalf of the company. The use of water kiosks not only increased access to water in unplanned urban settlements but also reduced the distance covered to water points by rural consumers (Obosi, 2015). Several public private partnerships of different magnitudes depending on the form of the WSP were identified and summarized as shown in Table 2.

Table 2 shows that partnerships within water service provision were both governmental and private and existed in ownership, licensing, service provision agreements, subsidies and distributions. The NGOs, Churches and government agencies like CDF provided funds to supplement distribution especially to the Community water projects whereas WARMA provided abstraction permits to all the WSPs. The management contracts interacted with other WSPs by establishing water supply schemes.

SNWSCO established five schemes of Homa Bay, Mbita, Kendu Bay, Oyugis, and West Karachuonyo as a strategy to help operate to a self-sustaining level by pooling up resources for the common good of the consumers in the respective companies. Whereas, MIKUTRA had Migori, Awendo, Rongo, Isebania schemes, Chemosit had Chepalungu, Bomet, Litein and Chesinende.

Although the Water Act 2002 also required each Management Contract to supervise the Private utilities at a fee proportional to revenue generated from sale of water although none had ever paid the fee to LVSWB (WASREB, 2012), there was no incidence of supervision of Community water projects ever done by the Water companies. This was attributed to the institutional weaknesses and the relatively better performance of community water projects than the would-

Table 2. The scope of partnerships in Water Service Providers.

WSPS	Form	Partners	Scope of PPP
Kiwasco	Management Contract	Governmental, Private Managers, Community Water Point Owners	Water Kiosks, subsidy to informal settlements, revenue collection, Govt ownership, WARMA, Service Provision Agreement
Chemosit	Management Contract	Government, Private Managers, Community	Water schemes, WARMA, Govt ownership, Service Provision Agreement
Boya	Private Venture	Government, Community, NGOs, Church	NGOs, CDF, WARMA, Community ownership, Service Provision Agreement
SNWSCO	Management Contract	Governmental, Private Managers, Community Water Point Owners	Water Kiosks, subsidy to informal settlements, revenue collection, water schemes, Govt ownership, Service Provision Agreement
Nyasare	Private Venture	Government, Community, NGOs,	NGO, Community participation, Community ownership, Water Kiosks, Service Provision Agreement
Mikutra	Management Contract	Governmental, Private Managers, Community Water Point Owners	Water Kiosks, subsidy to informal settlements, revenue collection, Water schemes, Govt ownership, Service Provision Agreement
Mogombet	Private Venture	Government, Community, NGOs, Church	NGOs, CDF, Catholic Church, Community participation, Community ownership, Service Provision Agreement

Source: Author's own compilation.

be supervisors, the PLCs. Even where a PLC performed better, there were no clear mechanisms for justifiable enforcement (Obosi, 2015).

Water Service Regulators

Water service regulation refers to controllers of supply and/or distribution of water to the consumers in the form of price determination, water level abstraction and resources management. The regulators included WARMA, CAAC, WRUA, local authorities, WSB and WSRB. Several public private partnerships of different magnitudes depending on the form of the WSP were identified and summarized as shown in Table 3.

Table 3 shows that whereas all the WSPs interacted with WARMA and WSBs, Boya, KIWASCO and SNWSCO did not interact with WRUAs. Neither was the presence of CAAC felt in any of the seven WSPs. It was further noted that none of the Community water projects managed sanitation.

The government still played a key role in sanitation through the local authorities. WARMA charged an abstraction fee to each and every WSP irrespective of the source of water, the only time each WSP interacted with WARMA.

Each WSP had a different experience with the regulator, WARMA. Fast issuance of permits for water abstraction was reported at both BOYA community water project and SNW & SCO, Homa-Bay scheme. It once closed Oyugis scheme for nonpayment of the required fee. However, in Nyasare, WARMA provided funds to the project for training and protection of the natural springs,

Table 3. The nature and scope of PPP in water service regulation per WSP.

WSPS	Form	Nature	Partners	Scope of PPP
Kiwasco	Management Contract	Public Limited company	WARMA	Abstraction fee collection
			Local Authorities	Company owner
			WSB	Asset owner, Licensing
			WASREB	Price regulation, performance monitoring
Chemosit	Management Contract	Public Limited company	WARMA	Abstraction fee collection
			WRUA	Protecting water source
			Local Authorities	Sanitation
			WSB	Asset owner
			WASREB	Asset owner
Boya	Private	Community water Project	WARMA	Issue water abstraction permits
			WSB	Licensing
			WASREB	Price regulation
SNWSCO	Management Contract	Public Limited company	WARMA	Abstraction fee collection
			Local Authorities	Company owner, sanitation
			WSB	Asset ownership, Licensing
			WASREB	Price regulation
Nyasare	Private	Community water Project	WARMA	Abstraction fee collection Staff training
			WRUA	water source protection
			WSB	Licensing
			WASREB	Price regulation
Mikutra	Management Contract	Public Limited company	WARMA	Abstraction fee collection
			WRUA	water source protection
			WSB	Licensing, Asset ownership
			WASREB	Performance monitoring, Price regulation
			WRUA	Protection of water source
Mogombet	Private	Community water Project	WARMA	Abstraction fee collection
			WRUA	Protection of water source
			WSB	Licensing
			WASREB	Price regulation

Source: Author's own compilation. KEY. WARMA: Water Resources Management Authority; WRUA: Water Resource Users Association; CAAC: Catchment Area Advisory Committee; WASREB: Water Service Regulatory Board; WSB: Water Service Board.

their major source of water through Korondo Water Resource Users Association (WRUA). Mogombet community project regarded WARMA's abstraction fee as an extra burden on the community water project as captured by one of the key

informants from the zone "… WARMA is only good at collecting money for which they have not worked. They are not adding value to the distribution chain. Their role should instead be done by either Provincial Administration or officers from the line ministries. Chemical sprays from the tea plantations owned by the Brooke Bond multinational corporations find their way into River Nyangores yet WARMA is not taking any action …"

Table 3 further shows that WASREB was also critical to all the WSPs. In KIWASCO zone, WASREB was effective in terms of prescribing penalties and regulations against defaulters. For example, for three years since 2007, when it started releasing performance reports on WSBs and WSPs, it reported that various community projects including Boya, Ahono, and Nyasare had provided either incomplete returns or none at all to WASREB yet they continued to operate normally. Nyasare subsequently complied and submitted its returns as reflected in Impact Report No. 5 of 2012 and was ranked among the top 10 best performers nationally in its category. All WSPs in the region were hooked to LVSWB and were subjected to its governance in terms of supervision as they pay SPA fees.

LVSWB was instrumental in infrastructure development for the WSPs through underwriting of the loans and grants from bilateral donors. It owns the assets for the Public Water companies of KIWASCO, Chemosit, SNWSCO and MIKUTRA. It also facilitated operations, negotiated and underwrote loans for infrastructure development of the WSPs. For example, LVSWB guaranteed loans from SANA in support of Boya community water project. In Migori, LVSWB supplied chemicals, water meters and facilitated trainings for Nyasare Water Supply Association.

Finally, WSB was also the hub of the institutional interactions among water service providers, water service financiers, and water service provision regulators. It facilitated the granting of both SPAs by WASREB and water abstraction permits by WARMA to respective WSPs. The government through WSTF also supported WSPs through WSBs, irrespective of whether they were community water projects or corporatized water utilities. Further, WSB influenced the appointment of Managing Directors for SNWSCO and MIKUTRA. It also suspended SPA with Chemosit in 2011.

Water Service Provision Financiers

Water service financiers refer to institutions or organizations that facilitate the distribution of water to the consumers. The methods used vary and for purposes of our analysis, we classified them as Peoples Organizations, Non-Governmental Organizations, Governmental Institutions, and Development partners. Several public private partnerships of different magnitudes depending on the form of the WSP were identified and summarized as shown in Table 4.

Table 4 shows that whereas Peoples organizations are the most dominant partners in all the community water projects, Development Partners are more dominant in Management Contracts through Water Service Boards. The other important financial partners for Community water projects included Non-Governmental

Table 4. The nature of partners and scope of PPP for Water Financiers per WSP.

WSPS	Form	Partners	Scope of PPP
Kiwasco	Management Contract	WSB	Asset ownership
		Local Authority	Company ownership
		CDF	Water storage, Water supply
		Peoples Organizations	Members contributions
		Dev. Partners	Rehabilitation of distribution network
Chemosit	Management Contract	Local Authority	Asset ownership
		WSB	Asset ownership
		Dev. Partners	Rehabilitation of distribution network, capacity building
Boya	Private	WSB	Loan guarantor
		CDF	Water storage
		NGOs	provision of financial loan
		Peoples Organizations	Members contributions
SNWSCO	Management Contract	CDF	Water supply, line rehabilitation, power line, infrastructure development,
		Peoples Organizations	Members contributions
		Local Authority	Asset ownership,
		WSTF	Water storage,
		NGOs	Water kiosk
		Dev. Partners	Rehabilitation of distribution network
Nyasare	Private	NGOs.	Infrastructure development
		Development. Partners	Rehabilitation of distribution network
		Peoples Organizations	Contributions
Mikutra	Management Contract	WSB	Asset ownership
		Local Authority	Company Ownership
		Dev. Partners	Rehabilitation of distribution network
Mogombet	Private	Peoples Organizations	Members contributions
		CDF	Water storage
		NGOs	Water Storage

Source: Author's own compilation. KEY: WSB: Water Services Board; WSTF: Water Services Trust Fund; CDF: Constituency Development Fund; NGOS: Non Governmental organizations.

Organizations and Governmental organizations like CDF, WSTF and Local Authorities to help in boosting storage and network distribution.

In Kisumu, several CBOs were instrumental in the supply of water. A case in point was Wandiege Community water project which initially had its own borehole for its supplies but got connected directly to the KIWASCO main water lines. The same applied to West Karachuonyo community water project of

SNWSCO. Table 4 further shows that community water projects have benefitted from the Governmental Organizations financially. This could be illustrated by the following cases. Kisumu East Constituency had through its CDF funded sinking of boreholes in Manyatta area. Likewise, Nyando CDF funded the purchase of a 24,000 litres capacity storage tank for Boya community water project. In the same manner, Karachuonyo CDF provided Kshs 1 million and Kshs 700,000.00 (USD 7000) for the rehabilitation of lines from Omindi to Wagwe areas and water lines in Kanam B to set a power transformer at Miti Mbili.

There were also cases where the government's Water Services Trust Fund (WSTF) channeled funds to Community Based Organizations and WRUAs through Water Service Boards. For example, In SNWSCO, WSTF provided over Kshs.7 million each to Koguta and Rabuor community water projects in West Karachuonyo scheme to set up water storage tanks. As shown in Table 4, development partners were key partners to state driven utilities, Public water companies, through the water boards in the form of either international financial institutions offered development assistance through state undertakings or bi-lateral state negotiations for loans/grants.

In the water sector, the facilitation was channeled through either local authorities or the WSB. In Bomet, the major donors included the European Union (EU) which donated personal computers to Litein water supply Scheme, German Development Agency (KFW), and Nile Basin Initiative which facilitated expansion of the water pipeline from Nyangores River to the tune of Kshs 12 million. In Kisumu city, LVSWB enhanced asset development through the African Development Bank (ADB) financing of the KIWASCO system. Danish International Development Agency (DANIDA), French Agency for Development (AFD) also facilitated expansion and development of KIWASCO water network and treatment. United Nations Children's Fund (UNICEF) provided 400 pipes and two 5000 litres water storage tanks for Boya community water project. DANIDA facilitated the expansion of Homa Bay (Asego) supply while AFD provided 5 million shillings for repairs of water lines in West Karachuonyo community water supply scheme in 2003. In MIKUTRA, ADB financed rehabilitation of water pipeline network in Migori town, and Rongo while Korean International Cooperation Agency (KOICA) supported a similar initiative in Awendo town. Austrian Development Cooperation (ADC) on two occasions, 1997-2003; and 2003-2008, through HORIZON3000 financed the expansion of programme for Nyasare Water supply Association.

5. Conclusion

The paper has concluded that public private partnership has permeated both organizational and institutional management of water service delivery in Kenya. It has occurred in water service provision, regulation and financing involving interactions amongst various actors in both community water projects and public water companies thereby making the nature and scope of PPP in Kenya more

encompassing than the traditional typologies. PPP operates better where there is more flexibility with regard to attracting and interacting with partners selected from key stakeholders. The government owned WSPs, unlike community WSPs are subjected to limited choices, hence fewer structured partnerships with low complementarity in service delivery. Other than in PLCs other PPPs in Kenya especially for financiers, develop as need arises in the process of making public choices.

The regulatory institutions and procedures therefore hampered the flexibility of the water companies to engage in public private partnerships. The community water projects have therefore been more flexible in engaging POs, NGO, Churches, and Individuals for financing the infrastructural and quality improvements hence, relatively, better service delivery compared to public water companies.

Secondly, community water management approach is a variant of public private partnership. They are mostly self-help projects started and operated mainly by members through management committees for their welfare and supply mainly through house hold connections rather than through public stand pipes. They show more private sector participation as they engage NGOs, bilateral donors and even the government in pursuit of their service delivery while the public water companies are tied mainly to the bi-lateral partners and financial institutions whose facilitation are negotiated by either the respective local authority councils or the WSB. Irrespective of the nature of public private partnership, more access in terms of affordability and quantity has been realized especially in the community water projects. Unfortunately, the gains are likely to be undermined by the absence of sanitation framework. Whereas management contracts are struggling with sanitation services, the community water projects have no infrastructure at all to handle sanitation. It is high time the government considered facilitating the Community water projects to manage sanitation as well through a structured partnership which could involve asset development and maintenance as well.

Thirdly, the paper has also established that public private partnerships may also involve associations not necessarily sanctioned by formal government apparatus. It is this kind of arrangement which is more pronounced in the water sector in Kenya as orchestrated through community water management approach. It gives room for more private actors being invited to participate in public enterprises. Sometimes, the private enterprises invite public participation in the form of funding and regulation from the government therefore reversing the role in provision of water as a public good. This kind of PPP has performed much better than the management contract type initially adopted by the government of Kenya. This is unlike the joint ventures, concession and leases which features prominently in Anglophone countries and/affermage systems in Francophone countries.

Finally, the paper has established that more access to water for the rural community is through community water projects, courtesy of the established

PPPs. The projects are faster at establishing PPPs with POs, and NGOs local and international as well as the government compared to the bureaucratic contract management which too has to rely on the actions of WSBs. The government should therefore focus on the provision of water through the community water projects through reinforced community water management systems and enhanced funding for the projects. Unlike the government identified community water points in Ethiopia, Uganda and Malawi, the approach will imply government supporting the community to enhance the management of existing and operating choices.

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