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Institutional framework and challenges in small towns' water supply in Ghana

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Abstract

In 1994 the government of Ghana embarked on reforms in the drinking water sector which saw the decoupling of small towns water supply from larger urban water supply. The intention was to ensure sustainability in the sector by allowing small towns' water supply to be managed through community ownership and management (COM) arrangements linked to the District Assemblies, while the supposedly financially viable urban water supply was managed by the public, corporatized utility. The National Community Water and Sanitation Programme (NCWSP) policy has assigned roles and responsibilities to all stakeholders within the water sector but data available does not show any significant progress in the coverage figures. This paper reviews the policies underlining the provision of small towns water supply in Ghana within the context of the Constitution of the Republic of Ghana and the Local Government Act 462. It also assesses the effectiveness of the small towns water policy at the point of implementation. In conclusion the paper presents some critical institutional, legal and regulatory challenges that have the potential of derailing the efforts by government and the external support agencies in ensuring that Ghana meets the MDG7 target. Approximately one third of the 25 million population of Ghana live in small towns.

Keywords: Community Water Supply, Ghana, Management models, Small towns

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1. Background

The drinking water sector in Ghana has over the years gone through reforms, and during these reform periods, changes have been made to the institutions responsible for the provision of drinking water to the population, with the view of improving services. The reforms began in 1928 when the first water supply in Ghana, the Hydraulic Division of the Public Works Department (PWD) was established (Braitham, 2010; Nyarko, 2007), to be responsible for the urban water supplies in Ghana. After 20 years of the existence of the Hydraulic Division, the Rural Water Department was then added to the PWD. In 1958, the Hydraulic Division and the Rural Water Department were merged into one department, the Water Supply Division of the PWD (Nyarko, 2007) which was later transformed into the Ghana Water and Sewerage Corporation (GWSC) in 1965 by Act 310 (Braitham, 2010; Nyarko, 2007) citing (Government of Ghana, Ghana Water and Sewerage Corporation Act 310, 1965). The Ghana Water and Sewerage Corporation managed both rural and urban water supplies in Ghana until 1994 when yet another reform was implemented, resulting in the separation of rural and small towns water supply from the urban water supply. The reforms in 1994 were directed to the implementation of the National Community Water and Sanitation Programme (NCWSP) with the creation of the Community Water and Sanitation Department within the Ghana Water and Sewerage Corporation to be responsible for the rural and small towns' water supplies (MWRWH, 2006). By the Community Water and Sanitation Agency Act, 1998 (Act 564) (MWRWH, 2006), the Community Water and Sanitation Department became an autonomous agency; Community Water and Sanitation Agency (CWSA). The separation of rural and small towns water supply from urban water supply, according to the architects is to ensure GWSC focuses on the largest urban systems "where utility-based operations are financially viable" (World Bank, 1994). The separation they said will enable rural communities and small towns benefit from managing their own water supply systems (World Bank, 1994). This assertion cannot wholly be the case as the policy in small towns water supply before the Water Supply Division of the PWD was established in 1958, was by community management of their systems, which was cancelled in favour of GWSC management. The current form of the public utility, Ghana Water and Company Limited (GWCL) was a transformation of Ghana Water and Sewerage Corporation by Act 461, 1999 (MWRWH, 2006) and this ensured the removal of all subventions to the water company. This paper focuses on that part of water delivery in Ghana that is generally but not exclusive the responsibility of the Community Water and Sanitation Agency and limited to small towns.

In the water supply sector in Ghana, small towns are defined as communities with population between 2,000 and 50,000 (CWSA, 2004a; Nyarko et al., 2006; Manu, 2001; Braitham, 2010). The estimated population living in these towns is conservatively about 32% (World Bank, 2004) of the about 25 million Ghanaians. It is estimated that of the 336 small towns in Ghana (Owusu 2005), 287 have operational water supply systems (Manu, 2001) which are being managed under the National Community Water and Sanitation Programme guidelines and few others by Ghana Water Company.

This paper reviews the policies underlining the provision of small town's water supply in Ghana within the context of the Constitution of the Republic of Ghana and the Local Government Act 462. It also assesses the effectiveness of the small towns water policy at the point of implementation and argues that if the

provision of small towns water supply in Ghana was implemented within the proper context of the national constitution and the Local Government Act, 1993 (Act 462) some of the current challenges would have been avoided.

2. General legal and policy framework supporting small towns water supply

In Ghana there are general legal and policy framework in support of institutions and the institutionalisation of development programmes that seek the welfare of all citizens, especially water supply. This section discusses the relevant laws, Acts and policies other than water supply policies critical to the successful implementation of programmes in order to meet the Millennium Development Goals especially in the water supply sector in Ghana. These are, the constitution of Ghana, Local Government Act and Growth and Poverty Reduction Strategy (GPRS I & II). These are meant to set the stage for the discussion of the Water Policies and the Roles and Responsibilities assigned to sector actors. The constitution of the Republic of Ghana and the Local Government Act 1993 (Act 462) provide the legal and policy framework for the effective implementation of small towns water supply schemes.

Chapter six of the constitution of the Republic of Ghana, titled “the directive principles of state policy” according to Article 34(1) is the guide to all citizens and any other institution both within and outside Ghana “in applying or interpreting the Constitution or any other law and in taking and implementing any policy decisions,”(GoG, 1992). The constitution therefore is the guide to any policy (including small towns water supply policy), that ensures better living standards for the people of Ghana.

Article 35(3) of the constitution places the responsibility of promoting just and reasonable access to public facilities and services according to law by all citizens on the state (GoG 1992) and therefore Government is the lead facilitator in water supply issues in Ghana. It is therefore in order that all governments in Ghana over the years have attempted to ensure that all citizens have adequate access to water supply services by implementing different types of reforms.

The Millennium Development Goals (MDG) subscribed to by Ghana places a constitutional responsibility on the government of Ghana by Article 40(d)(i) which enjoins Ghana to “adhere to the principles enshrined in or as the case may be, the aims and ideals of the Charter of the United Nations (GoG,1992). Meeting all the targets of the MDG in Ghana therefore goes beyond what otherwise would have been viewed as political rhetoric to a constitutional requirement. It is therefore critical to minimise if not removed completely any challenges that have the potential of hindering the delivery of any of the MDG targets in Ghana. It is vital that we highlight the institutional challenges in small towns water supply, as more than a third of the population of Ghana live in these towns and therefore an important segment that could make the country not meet its MDG target in water supply.

Article 240(1) of Ghana’s constitution provides for a system of local government and administration which should be decentralised. Article 240(2)(b) says “Parliament shall by law provide for the taking of such measures as are necessary to enhance the capacity of local government authorities to plan, initiate, co-ordinate, manage and execute policies in respect of all matters affecting the people within their areas”.

Article 240 of the constitution is therefore the basis for the implementation of the National Community Water and Sanitation programme in Ghana which is being implemented using the decentralised Local government system. The District Assembly, according to Article 241(3) of the constitution is the highest political authority in the District and that the Assemblies have “deliberative, legislative and executive powers” (GoG 1992). The Local Government Act 1993 (Act 462) Section 15(1), in addition, gives the District Assemblies the power to delegate some of their functions to any of its lower structures or any other body or person the assembly determines (GoG, 1993). However, these delegated functions “does not include the power to legislate, levy rates or borrow money (GoG, 1993). Article 247 of the constitution anticipated the creation of these lower units of District Assembly and was catered for by law in advance but could not anticipate what Act 462 referred to as “any other body or person the Assembly determines”. Currently the District Assemblies through the arrangement of the Community Water and Sanitation Agency (CWSA) have delegated the function of water supply delivery to the Water and Sanitation Development Board (WSDB) a new body. The CWSA, the government agency responsible for facilitating the provision of small towns water supply is still facing the challenge of getting the legal backing for the WSDB. This confirms the claim by (Fuest, 2006) citing the World Bank, that development partners tend to put much emphasis in the effectiveness of new institutions to support interventions.

The autonomy of the District Assemblies as decentralised local government systems to legislate and make laws as provided for in the Constitution and the Local Government Act as discussed above have been questioned and these author questions that further. Currently, any bye laws made by District Assemblies are expected to be submitted to the Minister of Local Government and Rural Development for approval a claim supported by (Fuest, 2006) in her assessment of the demand driven principles of water delivery in Ghana. This brings to fore the challenges of the District Assemblies in making their own bye laws to ensure effective small towns’ water supply as the water supply sector is in the domain of the Ministry of Water Resources Works and Housing as shown in Figure 2 below. The Community Water and Sanitation Agency has therefore usurped the powers of the Assemblies to make their own laws and left them with only the option of ratifying what is presented to them by the CWSA.

The decentralised local government structure in Ghana is captured by Figure 1 below and it shows the lower structures of the Metropolitan, Municipal and District Assemblies. The lower structures relevant in small towns water supply are the urban, town, area and zonal councils and unit committees. The unit committees are the lowest in structure and represent the group directly in contact with the grass roots and they could be useful when utilised as captured in Gomda (2008).

Ghana Poverty Reduction Strategy (GPRS I) which was first produced at the request of Ghana’s development partners to provide a Poverty Reduction Strategy Paper in 2003, was done to reflect the policy framework directed at attaining the Millennium Development Goals (MDGs). Provision of water supply facilities has been emphasised as one of the strategies critical in poverty reduction. The revised strategy paper which was rebranded as the Growth and Poverty Reduction Strategy (GPRS II) still contained the broad objectives of the MDGs (NDPC, 2005). The GPRS I and GPRS II envisage that with the provision of portable water supply to communities, favourable health outcomes which are critical for economic growth and sustained poverty reduction will be attained. However, while the GPRS II provided comprehensive

strategies to accelerate the provision of safe water to the urban areas which include ensuring the establishment of regional offices of the Public Utility Regulatory Commission (PURC) (NDPC, 2005) it was silent on regulating small towns. This is however an obvious challenge for the GPRS II as the Public Utilities Regulatory Commission Act 1997 (Act 538) (GoG, 1997) excludes regulating small towns water supplies. The absence of institutionalised regulation in small towns water supply poses a challenge to effective, efficient and sustainable service delivery to the more than a third of the population of Ghana. The challenges confronting CWSA and the District Assemblies to perform the role of a regulator are enormous ranging from lack of capable personnel to lack of resources to recruit qualified staff.

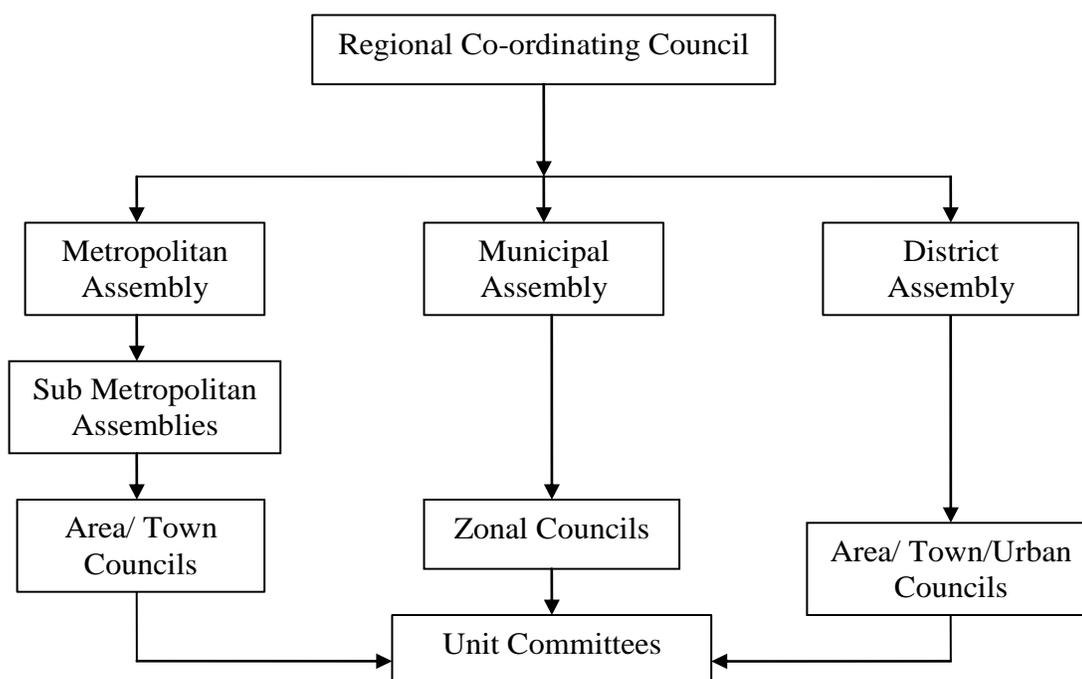


Figure 1. The decentralised local government structure in Ghana (Source: IMCC, 2012)

3. National and Small towns water policies in Ghana

The overall goal of the National Water Policy published in July 2006, is consistent with GPRS I and GPRS II which are also consistent with the UN Millennium Development Goals (MDGs). The overall goal of the policy is expected to be achieved “by addressing relevant issues under, urban water supply and community water and sanitation (MWRWH, 2006). The specific issues regarding water supply provision in small towns are contained in the Small towns Sector Policy which has been inspired by the National Community Water

and Sanitation Programme launched in Ghana in 1994 (World Bank, 1994; CWSA, 2004a) and subsequently revised to ensure that the MDG7 target is met.

The provision of water supply under the National Community Water and Sanitation Programme is based on demand driven approach where towns must express the demand by paying a prescribed percentage of the capital cost and the towns must also be willing to own and manage the water supply facilities when provided (World Bank, 1994; CWSA, 2004a). The towns that require a basic water supply scheme are expected to pay 5% of the capital cost and 50% of the additional cost for levels of service higher than basic services (CWSA, 2004a). It has been argued that when communities pay between 5% and 10% of the capital cost of their water facility, in addition to paying all recurrent cost of operating the system such communities would be committed to sustainably maintaining the facility (World Bank, 1994). Available literature (WARDROP Engineering, 2001) and from Braimah (2010) based on a comprehensive fieldwork, it is clear that there are some small towns who are unable to raise the minimum 5% capital contribution and the local District Assemblies have resorted to their share of District Assembly Common Fund (DACF) to make these payments on behalf of the towns. The demand driven approach therefore limits access to water supply services to these towns who cannot afford the 5%, and the District Assemblies are unable to pay on their behalf. Information abounds that the central government is always in huge arrears of the DACF payments to District Assemblies. This paper therefore supports the claim by Fuest (2006) that there is demand for water supply infrastructure, but lack of capacity (including finance) has constraint the communities from expressing the demand through the fulfilment of the conditions of the demand driven approach. The support provided by the District Assemblies to communities who are unable to mobilise the appropriate capital cost contribution, though might be seen as a justification for the local government as the route to engage the people, raises a lot more challenges. The District Assemblies are the focal point of all government programmes and policies at the local level and so are always executing multiple projects all year round financed partly or fully from the Assembly's resources. A District Assembly may not have anticipated the inability of the towns to make their capital cost contribution and therefore will not have budgeted for it in advance and may not also be willing to cancel the financing of an equally important project in support of the water project. These challenges have the potential to delay water supply coverage to towns.

At the inception of the National Community Water and Sanitation Programme, claims were made in support of the implementation of the community ownership and management approach by investigating two small towns, one in Volta Region and the other in the north. It was concluded that the experience on community based revenue collection in those small towns piped systems has shown that "communities would be willing and able to manage their small towns piped systems" (World Bank, 1994). However, data collected recently from small towns in Ghana does not support that claim. For example data from Salaga show that in 2005, 2006 and 2007 the water supply operator received respectively, 33.5%, 206.8% and about 209% of their revenues as grants from the District Assembly (Braimah, 2010) before the system grounded in 2009. The operator in Bole in 2006 received an interest free loan equivalent to 110% of revenue generated from the District Assembly to meet the shortfall between operating expenditure and operating revenues (Braimah, 2010). Available data also show that the community ownership and management of small towns systems perform well when the facilities are fairly new or rely on only point sources as in

Damongo (Braithwaite, 2010). As the systems get older they perform poorly due to lack of proper maintenance as a result of inadequate revenues generated over the years.

The roles and responsibilities placed on the sector actors by the policies are discussed further in the following section.

4. Roles and responsibilities of institutions in small towns water supply

All the institutions involved in the provision of water supply in small towns have been assigned roles and responsibilities and it is envisaged by the National Community Water and Sanitation Programme that all the sector players have the capacity to execute their respective roles and where these capacities are lacking regular capacity building programmes could be the solution. The key stakeholders involved in small towns water supply in Ghana include, Development Partners of Ghana, Ministry of Water Resources Works and Housing, Community Water and Sanitation Agency, District Assemblies, District Water and Sanitation Team, Water and Sanitation Development Board, the Private sector, etc.

The small towns sector policy recognises the District Assemblies as the focal point for the delivery of water and sanitation facilities and as the decentralisation policy places the responsibility of development at the local level on the District Assemblies, as such, all other development programmes are routed through them. These responsibilities make the District Assemblies engaged in all year round multiple development programmes. The District Assemblies are noted to be confronted with challenges of inadequate numbers of skilled staff, lack of office space and residential accommodation for staff, etc (Fuest, 2006) making them inefficient in meeting deadlines. The District Assemblies as the highest political authorities in the Districts have been involved in unproductive interference in the works of other actors in the water supply sector.

Ghana's development partners such as the World Bank, African Development Bank (AfDB), Danish International Development Agency (DANIDA), Canadian International Development Agency (CIDA), European Union (EU), Agence Francaise de Development (AFD), Gesellschaft Für Technische Zusammenarbeit (GTZ), Kreditanstalt für Wiederrufbau (KfW), etc have been involved in the provision of small towns water systems. These development partners provide either 100% subsidised financing or concessionary credits to the Government of Ghana who intent subsidises the water projects in small towns to between 90% and 95%. These development partners have also been involved in the policy direction of Ghana's water sector especially the World Bank (ISODEC and Public Citizen/Water for All, USA, 2002; ISODEC and Globalisation Challenge Initiative, 2001) and in capacity building of the sector actors (Fuest, 2006; Fuest and Haffner, 2007).

Ministry of Water Resources Works and Housing is the main government agency responsible for policy direction in the water sector in Ghana but the formulation of the small towns water sector policies are generated from CWSA and presented to the ministry for revision when there is the need. Over the years the ministry had concentrated so much on the works and housing component relegating to the peripheries the water component and this was evident from the name of the ministry then; Ministry of Works and Housing, but was still responsible for water.

The Ministry of Water Resources Works and Housing with its initial focus on only Works and Housing was attributable to weak structures and capacity to support the water sector. It took the initiative of DANIDA through its long – term sector wide approach to work towards a restructuring of the ministry and thereby creating a separate Water Directorate within the ministry to serve as a focal point for the coordination of the sector including monitoring DANIDA funded water and sanitation projects (DANIDA and Ministry of Foreign Affairs, 2003). The challenges of recruiting qualified staff to operate the water directorate still exist as DANIDA is currently paying consultants to fill in the gap.

Table 1 above shows for each sector actor, the roles and responsibilities assigned under the National Community Water and Sanitation Programme and the Small towns sector policy. To appreciate the relationship that exist between the rests of the small towns water supply sector, the institutional arrangement for the provision of water supply to small towns in Ghana is shown in Figure 2. The relationship between the CWSA and the District Assembly is a weak one represented by the broken line.

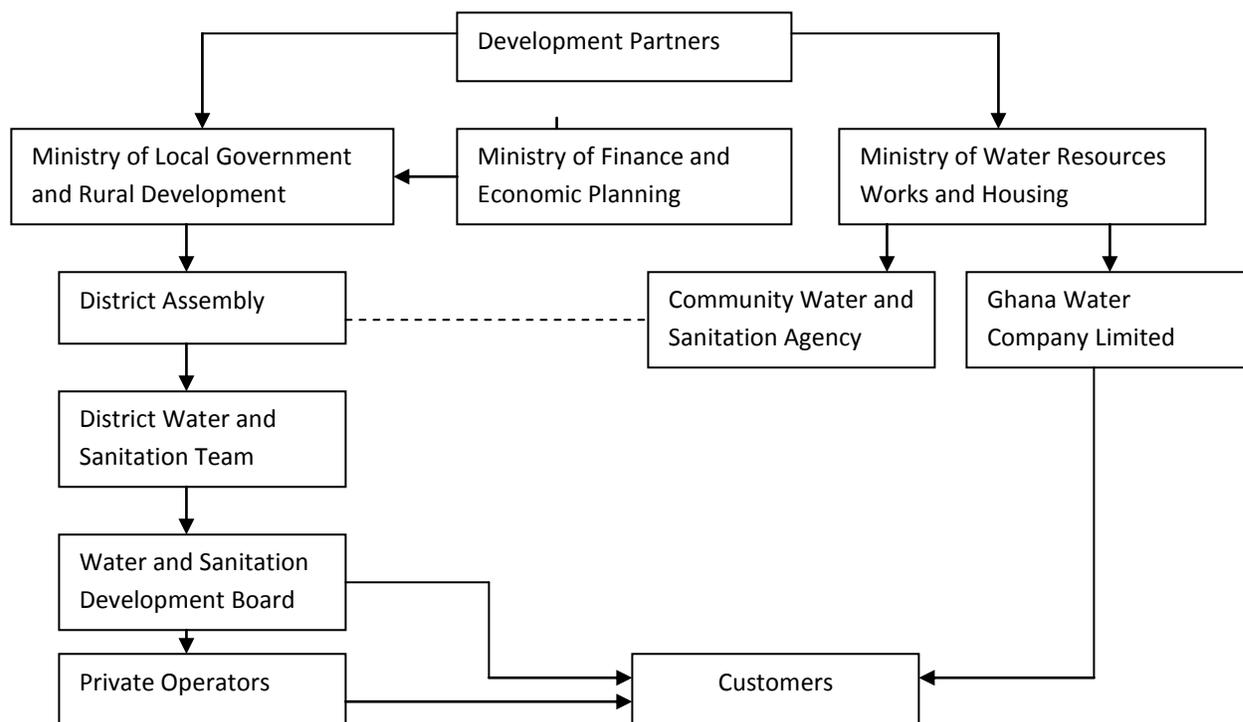


Figure 2. Institutional arrangement in small towns water supply in Ghana

The figure above shows the three routes through which customers in small towns receive water supply and sanitation services; first through the public utility, the Ghana Water Company Limited (GWCL) who still maintains some few small towns water system they considered as financially viable during the separation of urban water supply from rural and small towns water supply. The other routes are either through the Water

and Sanitation Development Boards (WSDB) who have been delegated by the District Assembly or through a private operator contracted by the WSDB.

GWCL operate all their water supply systems as conventional utilities and the benefit that NCWSP anticipated communities will derive from managing their own water supply systems does not apply and the District Assembly who lead development including water provision at the grass root does not have control over water provision in the case of GWCL management. This violates the provision of the constitutions and the local government act discussed earlier.

The first two small towns water systems that have been contracted out to the private operators and documented in Ghana are, Atebubu in the Brong Ahafo Region and Bekwai in the Ashanti Region. In these two towns the capacities of the private operators in understanding water supply issues are far in advance to that of the Water Boards who were to monitor their operations. The WSDBs are also dependent on the private operators for resources to pay their sitting allowances since the water boards do not generate revenues on their own. In Bekwai, in addition to providing resources for their sitting allowances, the private operator has provided the water board with office space. These supports are not contained in the contract documents and seem to be favours being done to the WSDBs and therefore may compromise the WSDBs in monitoring and enforcing the contractual agreements with the private operators.

In majority of the small towns, the Water and Sanitation Development Board (WSDB) carry out the management of the water supply systems themselves. The method of selection of members to the WSDB has not been defined by the small towns sector policy (it suggests either election or appointment) (CWSA, 2004b). All small towns visited have their WSDB members selected under the influence of the District Chief Executives (DCE) of the respective District Assemblies and this development has resulted in members staying either beyond the two year mandate provided for by policy (CWSA, 2004b) or removed before the two year mandate. These and the fact that the WSDB derive their powers from the District Assembly have resulted in three cases of conflict between the WSDB and the political authority. First is the arbitrary dissolution of the Atebubu water board, when it supported the private operator in proposing an increase in the existing tariff to enable the operator generate enough revenue to meet their growing expenditures which were caused by increasing world market price of crude oil. The Atebubu system uses diesel generators to power their pumping and treatment plants, any increase in the fuel prices affects their operational expenses. Second, in 2008, the WSDB in Bekwai and the DCE were engaged in some litigation as the board was arbitrary dissolved by the District Assembly without recourse to the laid down procedure and in the early part of 2001 the water board in Salaga was similarly dissolved. These are challenges that confront small towns in Ghana as WSDB who receive training in order to improve their performance are booted out without any consideration of the training they have acquired, as generally the WSDBs are considered to lack the capacity to perform their assigned roles; reports are hardly prepared, no internal auditing is done as required, etc. On the other hand the lower structures of the Assemblies who are catered for by law are elected by the people every four years. The lower structures of the assemblies have been receiving budgetary support for capacity building training from Non Governmental Organisations and if they were delegated to provide water supply services would have been better for continuity and for continuous training.

The District Water and Sanitation Team (DWST) are the wings of the District Assemblies used to facilitate water and sanitation provisions in rural and small towns in Ghana and they work directly with the WSDBs on behalf of the Assemblies. Membership of the DWST is drawn from the Public Works Department (PWD), Department of Community Development and Department of Environmental Health. These departments are not part of the District Assembly and therefore its members are first responsible to their mother departments and the officers are transferred without any consideration of their membership of the DWST. All trainings received by these members therefore go waste when such members go on transfers. Asiakwa presents a vivid example of this challenge where all DWST members who were trained at commencement of the water project in 2003 were transferred by 2007. The new members did not know what was happening in the small town at the time in 2007. In addition to performing their duties at their own departments, the DWST members in each district are responsible for all the water and sanitation issues in the entire district, making the teams ineffective due to overload of work. The challenges of the DWST serving two masters did not need to be there since the First Schedule of Section 38(1) of the Local Government Act (Act 462) provides for the establishment of departments including the three named ones (GoG, 1993). It has also been reported that because CWSA formed the DWSTs, the District Assemblies still treat them as if they were rather a wing of the CWSA (Fuest, 2006).

The CWSA as facilitator of the small towns water supply is faced with multiplicity of challenges in getting the District Assemblies respond appropriately to their demands. As Figure 2 shows, there is a weak link between the CWSA and the District Assemblies as they fall under different ministries and there is no established law that bring them together. The arbitrary dissolution of the water boards in Atebubu, Bekwai and Salaga described earlier could not be resolved by the CWSA though they made attempts by visiting the towns and holding meetings with the respective District Assemblies.

5. Conclusion

This paper has provided enough evidence to show that in Ghana, both the Constitution and the Local Government Act provide the legal framework for the implementation of effective small towns' water supply. Provisions have also be made in the Constitution of the Republic of Ghana, the GPRS I, GPRS II, National Water Policy and Small Towns Water Sector Policy for the attainment of the Millennium Development Goals in water supply in small towns. However, there are institutional challenges in the implementation of the policies such as delegation of water supply provision to Water and Sanitation Development Boards who are not backed by any law allowing District Assemblies to unduly interfere in their operations. The lack of authority by the Community Water and Sanitation Agency to enforce any decision on the District Assembly for effective small towns water supply is another challenge. Therefore as shown by this paper if the small towns water supply delivery were implemented within the right context of the Constitution of Ghana and the Local Government Act 1993 (Act 462), most of the challenges would have been avoided or at least minimised.

References

- Braimah, C.A. (2010), Management of small towns water supply, Ghana (Unpublished PhD Thesis) Cranfield University, UK.
- CWSA (2004b), *Small towns sector policy (Operation and Maintenance Guidelines)*, Community Water and Sanitation Agency (unpublished), Accra, Ghana.
- CWSA (2004a), *Small towns sector policy*, Community Water and Sanitation Agency (unpublished), Accra, Ghana.
- DANIDA and Ministry of Foreign Affairs (2003), *Water and Sanitation Sector Programme Support Phase II (WSSPSII)*, Ref. No. 104.Gha.814, Government of Ghana (unpublished), Accra, Ghana.
- Fuest, V. (2006), *Demand - oriented Community Water Supply in Ghana. Policies, Practices and Outcomes*, LIT VERG, Berlin.
- Fuest, V. and Haffner, S.A. (2007), "PPP - Policies, Practices and Problems in Ghana's Urban Water Supply", *Water Policy*, vol. 9, pp. 169-192.
- GoG (1997), *Public Utilities Regulatory Commission Act*, Act 538 ed., The Republic Of Ghana, Accra, Ghana.
- GoG (1993), *Local Government Act*, Act 462 ed., Republic of Ghana, Accra.
- GoG (1992), *Constitution of the Republic of Ghana.*, National Constitution ed., The Republic of Ghana, Accra, Ghana.
- Gomda, A.R. (2008), *Water Thief Arrested*, available at: <http://www.dailyguideghana.com/portal/modules/news/article.php?storyid=5148> (accessed April 19, 2008).
- Inter-Ministerial Coordinating Committee (IMCC) on Decentralisation (2012), *Assessing the Effectiveness of District Sub-structures*. IMCC Secretariat, Accra, Ghana.
- ISODEC, G. and Globalisation Challenge Initiative, U. (2001), *(Draft) Water Privatisation in Ghana? An analysis od Government and World Bank Policies* .
- ISODEC, G. and Public Citizen/Water for All, USA (2002), *Report of the International Fact-Finding mission on Water Sector reform in Ghana*, .
- Manu, K.S. (2001), *PPIAF/CWSA Study on Private Sector Participation in Small Towns Water Supply (Final Report)*, Volume 1.
- MWRWH (2006), *Ghana National Water Policy*, , Ministry of Water Resources Works and Housing (unpublished), Accra, Ghana.
- NDPC (2005), *Growth and Poverty Reduction Strategy (GPRSII) (2006 - 2009) - Ghana*, Government of Ghana, Assembly press, Accra, Ghana.
- Nyarko, K.B. (2007), *Drinking Water Section in Ghana. Drivers for Performance* (unpublished PhD thesis), Institute of Social Studies and UNESCO-IHE Institute for Water Education, Leiden, The Netherlands.

Nyarko, K.B., Oduro-Kwarteng, S. and Adama, I. (2006), "Cost recovery of community-managed piped water systems in Ashanti region, Ghana", *Water and Environment Journal*, .

Owusu, G. (2005), *Small Towns in Ghana: Justification for their promotion under Ghana's Decentralisation Programme*, African Studies Quarterly, Online Journal for African Studies.

WARDROP Engineering (2001), *Rehabilitation of Small Towns Water Systems in the Northern, Upper East and Upper West Regions. Community Water and Sanitation Project*. Final Report, CWSA (Unpublished), Accra, Ghana.

World Bank (2004), *Project Appraisal Document on a proposed credit to the Government of Ghana for a Small Towns Water Supply and Sanitation Project in support of the Second Phase of the Community Water and Sanitation Programme*. 39318 - GH, World Bank, Africa Region.

World Bank (1994), *Ghana Community Water and Sanitation Project. Staff Appraisal report*, 12406-GH, World Bank Africa Region, unpublished.